# Conference Proceedings

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## Errata
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# Is The Library Important? Multivariate Studies at the National and International Level

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Three multivariate analyses, all controlling for the effects of poverty, confirm the importance of the library. Replicating McQuillan's analysis of 1992 NAEP scores, access to books in school and public libraries was a significant predictor of 2007 fourth grade NAEP reading scores, as well as the difference between grade 4 and grade 8 2007 NAEP reading scores, suggesting that access is important for improvement after grade 4. Access (school/classroom libraries) was a significant predictor of scores on the PIRLS test, a reading test given to fourth graders in 40 countries.

It has been firmly established that more reading leads to better reading (and writing, spelling, vocabulary and grammar), and that more access to books results in more reading (Krashen, 2004).

It is thus reasonable to hypothesize that more access means better reading. This prediction has been confirmed by a number of studies showing a positive relationship between library quality and reading achievement (McQuillan, 1998; Lance, 2004, and studies reviewed in Krashen, 2004).

In a multivariate study, McQuillan (1998) examined the relationship between access to reading material and scores on the 1992 NAEP reading test given to samples of fourth graders in 42 states in the US. His measure of access was a combination of three measures of access to reading material at home, two of access to reading in school, and two of access to reading in the community. Table 1, a multiple regression analysis from McQuillan (1998), tells us that even after controlling for the effect of poverty, access to print was a significant and strong predictor of performance on the NAEP: Those with more access did better.

The combination of poverty and print access accounted for 72% ($r2 = .72$) of the variability on the NAEP, that is, if we know the level of poverty of families in a state, and how much reading material is available to children in that state, we have 72% of the information we need to predict how well fourth graders in that state scored on the NAEP.

Table 1: Predictors of NAEP grade 4, 1992, 42 states

|  | beta | t | p |
|---|---|---|---|
| Poverty | -0.45 | -5.07 | 0 |
| Print Access | 1.12 | 4.3 | 0 |

r2 = .72
From: McQuillan, 1998

The goal of this paper is to report some recent progress in this area, using multivariate analysis.

A Replication

Table 2 presents a replication of McQuillan's findings using the 2007 fourth grade NAEP and more recent measures of poverty and access to books (a combination of books per student in school libraries and per capita total circulation in public libraries in each state). (Means, standard deviations, and inter-correlations among the variables are presented in the Appendix, tables A1 and A2.) This analysis also controls for the presence of English learners by only including scores for fluent English proficient children.[1] Once again poverty is a strong predictor of scores, and once again access to books makes an independent contribution to reading achievement.

Table 2: Predictors of NAEP grade 4, 2007, 51 states

|  | b | beta | t | p |
|---|---|---|---|---|
| Poverty | -0.919 | 0.72 | 7.42 | 0 |
| Access | 0.658 | 0.53 | 1.62 | 0.055 |
| r2 = .6468 |  |  |  |  |

r2 = .65  adjusted r2 = .63
Fluent English proficient students only

The Grade 4 to 8 Difference

A separate analysis was performed to try to determine what factors are responsible for improvement after grade 4, or, more accurately in this case, the difference between grade 4 and grade 8 scores. This multiple regression analysis is presented in table 3. This analysis indicates that, not surprisingly, that grade 4 scores are a strong predictor of grade 8 scores. It is surprising, however, that poverty is a weak predictor of the difference between grade 4 and grade 8. Recall that the impact of poverty is strong, however, on the grade 4 test.

Of interest to us is that access to books, again a combination of school library holdings and public library circulation, is a significant predictor of the difference in NAEP reading scores between grade 4 and grade 8.

The $r^2$ of .89 means that knowing the fourth grade NAEP scores for a state, the level of poverty, school library holdings and public library circulation is 89% of what we need to predict a state's grade 8 NAEP reading score.

Table 3: Predictors of NAEP grade 8, 2007, 51 states

|  | b | beta | t | p |
|---|---|---|---|---|
| NAEP4 | -0.848 | -0.857 | 10.68 | 0 |
| Poverty | 0.0958 | 0.076 | 0.96 | 0.17 |
| Access | 1.05 | 0.126 | 4.59 | 0 |

$R^2$ = .89, adjusted $r^2$ = .89
Fluent English proficient only

*Late intervention*

The effect of poverty on fourth grade reading is enormous, but access to books can contribute to fourth grade reading, regardless of poverty. The analysis also indicates that those who read better in grade four also read better in grade eight, but access to books can help here as well. This agrees with data showing that "late intervention" in the form of recreational reading is possible and effective (Krashen and McQuillan, 2007).

To get a more precise idea of the impact of access to books, we can analyze the increase in $r^2$ achieved by adding access to the effect of poverty. In grade 4, after controlling for poverty, access adds .02 to the $r^2$, increasing our ability to predict reading scores by 2%. Access increases our ability to predict the grade 4 to 8 difference by nearly 5%. As indicated in table 4, both public library circulation and school library holdings contributed to these increases.

Table 4: Gains in r2

|  | access | PL | SL |
|---|---|---|---|
| grade 4 | *2% | 1.60% | 1% |
| diff 4-8 | *4.8% | *2.7% | *3% |

* = statistically significant, p < .10.

This investigation used states of the USA as units. Our second study expands the investigation of the relationship of access to reading to the international level, with countries as units.

## The PIRLS Study

PIRLS (Progress in International Reading Literacy Study) administered a reading test to fourth graders in 40 countries.  PIRLS provides not only test scores, but also the results of an extensive questionnaire given to teachers and students, including attitudes, reading behavior outside of school, and classroom practices. PIRLS also supplies data on socio-economic class. The items on the questionnaire relevant to this study and SES statistics are presented in the Appendix (table A3).

We present here two analyses of the PIRLS data, designed to further test the impact of access to books  (school libraries, classroom libraries) on scores on the PIRLS reading test. The first is a complex or full analysis that included as much of the information provided by PIRLS as possible, and the second is a simpler analysis, using only selected variables. We only included countries for which complete data was available for all factors (for a list of the countries included, see Appendix table A4).

*The full (complex) analysis*

In order to deal with the vast amount of information supplied by the PIRLS questionnaire, the data was factor analyzed, a statistical technique that assigns predictors into groups that behave similarly, as one factor.

Factor analysis revealed four factors: SES/home (Socio-economic status and home resources, including books in the home), Literacy (free reading of fiction, sustained silent reading in school, parental reading, parental education), Libraries (school and classroom), and Instructional Factors. (Inter-correlations are in table A5 of the Appendix and details of the factor analysis are presented in table A6 of the Appendix.)

The Library factor was the strongest predictor in the multiple regression analysis (table 4). The Literacy (free reading) factor was positively related to reading scores but did not reach statistical significance. Strangely, the SES/home factor was not a significant predictor of reading scores. The amount of formal reading instruction students received was negatively associated with reading proficiency. All factors combined accounted for 72% of the variation of PIRLS reading scores, with is very high.

Table 4: Multiple Regression: Complex (Full) Analysis

| predictors | beta | t | p |
|---|---|---|---|
| SESHome | 0.02 | 0.122 | 0.9 |
| Literacy | 0.164 | 1.343 | 0.19 |
| Library | 0.493 | 4.801 | 0 |
| Instruction | -0.483 | -3.454 | 0.002 |

r2 = .72

*The simple analysis*

In the simple analysis, one predictor was chosen to represent each factor, one that was felt to be most representative of the factor we were interested in investigating.  For SES/Home, only one measure of socio-economic status was used, the Human Development Index (HDI) developed by the United Nations. The measure of literacy used was SSR (sustained silent reading), the percentage of students who read independently in school every day or almost every day in each country. The library factor was represented by the percentage of school libraries in each country with over 500 books.  Instruction was represented by the average hours per week devoted to reading instruction in each country. Inter-correlations among these variables are in the Appendix, table A7).

Table 5: Multiple Regression: Simple analysis

| predictor | beta | t | p |
|---|---|---|---|
| SESHOME | 0.41 | 2.74 | 0.005 |
| LITERACY | 0.161 | 1.343 | 0.143 |
| LIBRARY | 0.346 | 2.75 | .005 |
| INSTRUCT | -0.186 | 1.4 | 0.085 |
| r2 = .63 | | | |

The results are quite similar to the complex solution, except that SES, as measured by the HDI, is now a significant predictor.

As we did in the previous analysis of NAEP scores, we now examine the increase in r2 as a means of judging the impact of access to books. In the full, or complex analysis, SES alone accounted for 40% of the variability in reading scores. Adding access increased the r2 to 61%. In the simple analysis, poverty alone accounted for 50% of the variability in reading scores. Adding access increased the r2 to .60. The combination of poverty, literacy (SSR) and instruction produced an r2 of .55; adding access increased this to 63%. All of these increases are substantial.

<div align="center">

*Conclusion*

</div>

In all of the multivariate studies considered here the library emerges as a consistent predictor of reading scores. This is remarkable, especially when we consider that the measures used are crude: library holdings, and even general circulation, in the case of public libraries.

Of course, providing access is only the first step: Even with access, some children (but surprisingly few) will not read. The research literature consistently indicates that rewards for reading are not effective (Krashen, 2003), but that read-alouds and conferencing do help. But in order for these approaches to work, the books need to be there.

But what is clear is that libraries definitely matter and they matter a lot.

**Note**

1. This was not possible for previous years' NAEP scores because separate scores for English learners and fluent English speakers were not available. Even though English learners who have recently arrived in the US are not required to take the NAEP, criteria for including English learners vary from state to state, and it is likely that many English learners who take the NAEP cannot show their full proficiency in reading on the test. The means for all students and for fluent English speakers only were similar for NAEP 2007: For all students, mean = 220.4, for fluent English only, mean = 222.4), but English learners are concentrated in a few states, and in these cases the scores with and without English learners are quite different: For California,

the difference was 11 points, for Nevada, 9 points, for Arizona, Oregon, New Mexico and Alaska, 6 points.

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**APPENDIX**

Table A1: NAEP 2007 analysis: Means and standard deviations, 51 states

|  | mean | sd |
|---|---|---|
| NAEP 8 | 263.4 | 6.69 |
| NAEP 4 | 222.4 | 6.74 |
| Poverty | 17.75 | 5.28 |
| Public library circulation. | 7.52 | 2.82 |
| School library Holdings | 19.57 | 6.21 |

The measure of poverty used was the percentage of families with children in each state at the poverty level or below for 2005, available at hppt://www.kidscount.org., from the from the U.S. Census Bureau, American Community Survey.

Access consisted of a combination of two variables: (1) Per capita public library circulation for each state, from Chutem A. and Kroe, P. 2007. Public Libraries in the United States: Fiscal Year 2005 (NCES 2008-301). National Center for Educational Statistics, Institute of Education Science, U.S. Department of Education, Washington D.C. (2) School library holdings for each state (books per student), from Holton, B., Boe, Y., Baldridge, S., Brown, M., and Heffron, D. 2004. The Status of Public and Private School Library Media Centers in the United States. Washington D.C.: U.S. Department of Education, National Center for Educational Statistics.

Table A2: NAEP 4, 2007 analysis: Inter-correlations

|  | NAEP 4 | Poverty | Access |
|---|---|---|---|
| NAEP8 | 0.92 | 0.72 | 0.64 |
| NAEP4 |  | 0.79 | 0.49 |
| Poverty |  |  | 0.47 |

Table A3. PIRLS: Variables and means

| Predictor | n | mean | sd |
|---|---|---|---|
| Gross National Income per capita | 42 | 18458.7 | 14387 |
| Gross Nat. Income: Purchasing power | 40 | 20242.8 | 12081.8 |
| Score on PIRLS reading test | 45 | 505.9 | 67.91 |
| Socio-economic status: HDI index | 45 | 0.8803 | 0.089 |
| Percent children with high early home literacy activities | 43 | 55.98 | 15.37 |
| Percent of homes with high educational resources | 43 | 11.86 | 6.72 |
| Percent of homes with 100 books or more | 43 | 15.14 | 11.55 |
| Percent with university education or higher | 42 | 27.48 | 12.88 |
| Percent of parents reading more than five hours per week | 43 | 37.67 | 9.78 |
| Percent students reading fiction outside of school everyday or nearly every day | 45 | 34 | 10.55 |
| Percent students reading nonfiction outside of school everyday or nearly every day | 45 | 15.33 | 7.45 |
| Percent students reading for fun outside of school everyday or nearly every day. | 45 | 40.69 | 8.57 |
| Teacher reads aloud to entire class daily. | 45 | 59.5 | 22.24 |
| Students read independently in school every day or almost every day | 45 | 67.4 | 12.44 |
| Students answer questions in workbooks about reading (almost) every day | 45 | 36.33 | 14.15 |
| Teacher Reports Giving Written Quiz or Test After Students Read – At Least Weekly | 45 | 24.53 | 17.4 |
| Percent of schools with school libraries | 44 | 89.84 | 16.35 |
| Percent of schools with school libraries containing more than 500 books. | 44 | 73.64 | 27.4 |
| School library has more than ten magazines. | 44 | 25.67 | 22.07 |
| Percent of students with access to classroom libraries. | 45 | 71.49 | 21.76 |
| Average number of books in classroom library | 45 | 66.13 | 58.13 |
| Average number of magazine titles in classroom library | 45 | 3.36 | 1.84 |
| Percent of students who can borrow books from classroom library to take home. | 45 | 57.78 | 20.15 |
| Percent Students Using Instructional Software to Develop Reading Skills | 45 | 30.93 | 18.97 |
| Percent Students Reading Stories or Other Texts on Computer | 45 | 41.67 | 23.05 |
| Hours per week on reading instruction | 45 | 2.54 | 0.938 |

Table A4. PIRLS: Countries included in the analysis presented here:

Austria
Belgium (French)
Belgium  (Flemmish)
Bulgaria
Canada-Alberta
Canada-British Columbia
Canada-Nova Scotia
Canada-Ontario
Canada -Quebec
Taiwan
Denmark
France
Georgia
Germany
Hong Kong SAR
Hungary
Iceland
Indonesia
Iran
Israel
Italy
Kuwait
Latvia
Lithuania
Macedonia, Rep. of
Moldova, Rep. of
Morocco
Netherlands
New Zealand
Norway
Poland
Romania
Russian Federation
Singapore
Slovak Republic
Slovenia
South Africa
Spain
Sweden
Trinidad and Tobago

PIRLS treated five provinces as separate countries, for some reason. Also, Hong Kong was included but China was not, and Flemish and French sections of Belgium were treated separately.

Table A5: PIRLS: Complex (full) factor analysis: Inter-correlations

|  | Read Prof | SESHome | Literacy | Library |
|---|---|---|---|---|
| SESHome | 0.64 |  |  |  |
| Literacy | 0.47 | 0.51 |  |  |
| Library | 0.57 | 0.35 | 0.51 |  |
| Instruction | -0.64 | -0.72 | -0.18 | -0.09 |

Table A6: PIRLS: Factor Analysis

|  | I. SES & Home | II. Library* | | III. Literacy activities | IV. Instruction** | Factor loadings |
|---|---|---|---|---|---|---|
| 1 | Income |  |  |  |  | .85 |
| 2 | Purchase |  |  |  |  | .88 |
| 3 | HDI |  |  |  |  | .87 |
| 4 | Home resource |  |  |  |  | .70 |
| 5 | Home book 100 |  |  |  |  | .81 |
| 6 | Computer-skill |  |  |  |  | .88 |
| 7 | Computer-text |  |  |  |  | .84 |
| 8 |  | School lib exist |  |  |  | .94 |
| 9 |  | School lib over 500 |  |  |  | .92 |
| 10 |  | School lib over 10 magazines |  |  |  | .62 |
| 11 |  |  | Classroom lib exist |  |  | .89 |
| 12 |  |  | Class-book |  |  | .74 |
| 13 |  |  | Classroom lib magazines |  |  | .78 |
| 14 |  |  | Classroom lib can borrow |  |  | .89 |
| 16 |  |  |  | Readiness |  | .67 |
| 17 |  |  |  | Parent education |  | .64 |
| 18 |  |  |  | Parent read |  | .44  (.64 on Factor I) |
| 19 |  |  |  | FVR-Fiction |  | .64 |
| 20 |  |  |  | FVR-Fun |  | .38 (.71 on Factor IV) |
| 21 |  |  |  | SSR |  | .65 |
| 22 |  |  |  |  | Read aloud | .56  (.57 on Factor III; .30 on Factor I) |
| 23 |  |  |  |  | Instruction-test | .60 (.57 on Factor I) |
| 24 |  |  |  |  | Instruction-skill | .32 (-.64 on Factor I) |
| 25 |  |  |  |  | Instruction -reading | .09 (-.68 on Factor I) |
| 26 |  |  |  |  | Reading non-fiction | .36 (-.66 on Factor I) |
| α | .94 | .84 | | .81 | .79 |  |

Some variables were not included in the multivariate analyses. For example, PIRLS reported data on hours spent on reading and writing instruction, but because of the vague description and the fact it is did not correlate with any of the other variables, it was not included. Also, among the library variables, PIRLS reported the percentage of students who reported borrowing books. This variable was omitted because it loaded on a single factor and reduced reliability.

A Principle Components Analysis extracted six factors and a Varimax Rotation produced three clear factors: SES/home, school library and classroom library.

The literacy and instruction factors were determined based on the inter-correlations among the variables and the concept each variable represented. We thus arrived at a four-factor solution, presented in table A6. Table A6 also presents the results of the reliability test of the four factors, and the alpha for each factor was satisfactorily high.

Note that read-alouds were in Factor IV and correlated highly with other instructional variables, suggesting that read-alouds were used primarily as instruction, and not for enjoyment.

All raw scores of the variables selected were then converted to z scores and were added up and averaged to arrive at composite score for the hierarchical regression analyses, presented in the text.

Table A7: PIRLS: simple analysis: Inter-correlations

|  | Read Prof | Poverty (HDI) | SSR | Sch. Lib. |
|---|---|---|---|---|
| Poverty (HDI) | 0.71 |  |  |  |
| SSR | 0.5 | 0.43 |  |  |
| Sch Lib | 0.56 | 0.37 | 0.51 |  |
| Instruction | -0.26 | -0.4 | 0.04 | 0.17 |

The Human Development Index is an average of three factors: education (adult literacy rates, school enrollment), life expectancy and wealth (logarithm of income); See http://hdr.undp.org/en/statistics/indices/hdi/. The UN considers high HDI to be between .8 and .95, mid to be between .5 and .79 and low to be between .34 and .49.

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*Pre-Conference*: Padua, Sept. 1st, 2009

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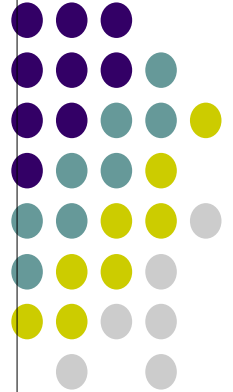
## International Conference
## Sub-themes

1 ) *Methodology of research: searching for information through the school library*

2 ) *Learning outcomes and competent use of school libraries*

3 ) *Cooperation for a successful learning: partnerships between school librarians/information specialists and teachers, public librarians, parents*

4 ) *The Web 2.0 as an educational tool*

5 ) *School Library Services, curriculum enhancement and learning outcomes: the principal's role*

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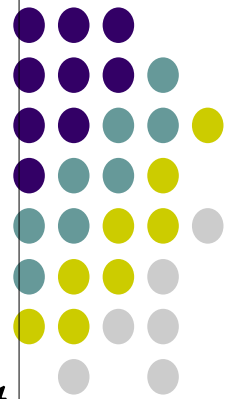
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## Other Programmes and Activities

- Pre – and joint conference ( Sept.1st)

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**In collaboration with Ensil, Ecis and IFLA SLRCs**

*Venue*: University of Padua, Palazzo del Bo
( see: http://www.unipd.it/stdoc/VisiteBOeng _ DEF11.pdf )

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- Trade Exhibition ( books, ICT for libraries, electronic resources etc.)
- Workshops
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- Library visits ( school and public libraries etc. )
- City tours ( Padua, Venice, Vicenza etc. )

# IASL 2009
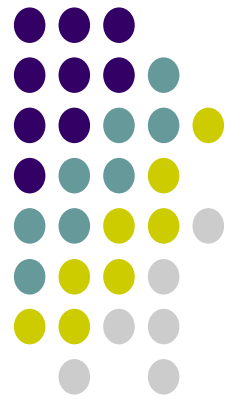
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**Place**: **Abano Terme** (near Venice and Padua) can be reached through airport Venice or by train from Padua (10'), Venice (from 34' up about 60'), Milan (about 3h), and Bologna (1h 30'). It's a well known SPA town; it has a very good library system (http://www.cba.pd.it/PAG1.html).

**Dates**: 2 – 4 September 2009 (plus pre-Conf: Sept. 1st)

**Venue**: Hotel Alexander Palace

Via Martiri d'Ungheria, 24 - 35031 Abano Terme (PD) Italy

(http://www.alexanderpalace.it/english/pages/hotel_alexander.php)

## Important dates

### 2008

- Sept.. 1st: early-early bird registration opens
- Dec. 31st: Closing date for submission of proposals and abstracts

### 2009

- Jan. 1st: early bird registration opens
- Feb. 28th: Notification of acceptance of proposals and abstracts
- March 31st: Deadline for submitting papers to be included in the proceedings
- May 1st: Regular registration opens
- Sept. 1st: **Pre-Conference** Meeting in Padua
- Sept. 2nd-4th: **IASL 2009 Conference**

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AIB (Associazione italiana biblioteche/Italian Library Association, www.aib.it)

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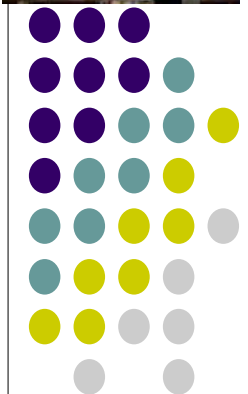
# Fostering a Culture of Reading through School Libraries: Room to Read's Experience in India

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*Since 2003, Room to Read, an international education NGO, has been working in India to help foster a culture of reading in schools through the establishment of over 1500 school libraries. This paper outlines the evolution Room to Read's Reading Room program in India as an example of how school library programs can address the reading challenges of children in developing countries. The focus of the paper is on Room to Read India's Primary Reading Enhancement Program (PREP), which will be piloted in the Reading Room program in 2008. The goal of PREP is to have a significant impact on the way reading is taught in primary schools in India. Details are provided on the approach, materials, activities, parent and community participation, government participation, and student assessments that make up the core components of the PREP design.*

*Keywords: libraries, culture of reading, Room to Read, India*

## Introduction

School libraries have a critical role to play in the development of a reading culture. Room to Read's five years of experience with the Reading Room program in India has not only confirmed this notion, it has also helped identify some of the key components necessary to ensure libraries are able to stimulate this culture of reading in all students. Libraries must take an adaptive, integrated approach with schools, not only by providing a physical library, but also ensuring these libraries are flexible enough to fit the school's particular context. It is essential to train librarians and teachers on managing and utilizing the library, work closely with the government, engage with parents and community, and ensure that teachers have the necessary tools and capacity to successfully utilize library resources to teach reading.

The purpose of this paper is to outline some of the major challenges facing the creation of a reading culture in India, and how Room to Read's programs have evolved over time to meet

these challenges.  It is important to note that this is not intended as a prescription, but rather as an example of one organization's experiences.

## Room to Read Background

Since 2000, Room to Read has partnered with communities and governments in Asia and Africa to address the lack of school libraries in developing countries. Room to Read's Reading Room program provides children with access to appropriate, creative, relevant and interesting children's literature by establishing libraries in primary and secondary schools. Room to Read began its efforts by donating local language and English books to schools in need of reading resources. Since then, Room to Read has developed a holistic library program that provides three years of support, including books, educational materials, furniture and training to schools in Cambodia, Laos, India, Nepal, Sri Lanka, Vietnam, South Africa and Zambia.

It is widely recognized that access to supplemental reading materials is essential for literacy acquisition and retention. In well-resourced communities, these materials are usually available in schools, homes and libraries. However, there is a dearth of resources in the majority of poor communities, particularly in developing countries, and the majority of the children in these communities are not exposed to print materials in their schools or homes. Books are expensive, difficult to find, and if they do exist, are not relevant to the children's lives. Children are often limited to the monotony of outdated textbooks, which rarely inspire children to engage with books in a meaningful way. Children and their teachers do not have access to supplementary reading materials such as story books and updated non-fiction books that stimulate the imagination and encourage reading outside the classroom.

In many countries, school libraries fill this gap by providing free access to supplementary reading materials for children. These libraries are an important component of a complete education, and have  a variety of demonstrated positive impacts on education, including higher scores on standardized tests, improved vocabulary and grammar, and positive attitudes towards reading (Lonsdale: 2003). Despite these findings, school libraries are often a low priority for school systems around the world that struggle with daunting issues such as shortages of qualified teachers and overcrowded classrooms. In fact, the 2000 UNESCO Education for All assessment revealed that school libraries were the lowest priority in educational spending (Krolak: 2005).

Given the potential impact that libraries can have on the quality of education, Room to Read is committed to ensuring that school libraries receive intellectual and financial attention. After establishing over 5,000 libraries in eight countries, Room to Read has found that it is imperative to provide access to books in ways that are adaptable and applicable to the needs and constraints of under-resourced schools in a wide variety of contexts around the world. When possible, Room to Read works with the school to set up a library in a separate room with traditional library management systems. However, the unfortunate reality is that many schools do not have a separate room to set aside for a library given issues of overcrowding, a dedicated librarian, and/or the ability to allocate a library period in the school schedule. So, Room to Read has introduced schools and communities to alternative methods of book provision, including mobile cart libraries and classroom libraries, which have been shown to be excellent alternatives to "formal libraries" (Krolak: 2005, Rosenberg: 1998).

As the Reading Room program continues to evolve, Room to Read is committed to working with each country to develop flexible library programs that have an impact on children's learning. The program specifics in each country will depend on context-specific needs, opportunities and constraints.

This paper will focus on the Reading Room program in India, where Room to Read has worked since 2003 with schools, communities and the government to develop a library program that works in urban slum schools and rural schools. Through its Reading Room program, Room to Read India has provided children in marginalized communities access to books, supported teachers in using those books effectively, and is currently developing an early grade reading program that will further the development of the "culture of reading" in schools and communities.

## Education in India

Since the 1950s, India has experienced many notable educational improvements. Primary enrollment rates have increased from less than one-third of children enrolled, to over three-quarters of children in school. Since 2001, drop-out rates and gender disparity rates have both fallen by nearly 10%. Like many countries worldwide, India has responded to the Education for All movement with a number of initiatives, and is successfully ushering children into the classroom. These efforts have resulted in increases to access and enrollment at the primary level, improvements in physical infrastructure at the school level, and teacher availability at school.

While progress has been made, schools in India continue to face very basic issues in providing equitable education to all children. Urban slum schools in Delhi and other large cities are overcrowded. Rural government schools often have only one or two classrooms that are in poor condition. Most urban and rural government schools lack basic resources such as textbooks and furniture, and teachers continue to rely on outdated instruction methods. The country is facing the reality that rapid expansion of enrollment strains the education system, threatening its quality.

Currently, over half of Indian children drop out at the primary school stage, and only half of enrolled students regularly attend classes in some of the northern states. In 2006, The National Council of Education Research and Training (NCERT) revealed low achievement scores across subject-based tests, and the Annual Status of Education (ASER) report in 2006 shows one-third of students in Standard VI cannot read at a Standard II level. The ASER data confirms that children are falling behind in their first two years of primary schooling.

The low achievement levels in primary schools can be attributed to several factors, including minimal investment in pre-primary education and socio-economic conditions. The largest government pre-primary program is the Integrated Child Development Scheme, which enrolls less than 20% of pre-primary aged children and lacks a solid curriculum, learning materials and effective staff. Therefore, children arrive in primary school with no foundation in pre-literacy skills. A majority of these young students are first-generation learners with no academic support at home. Many come from marginalized or tribal communities or scheduled castes, and when they arrive in school at grade one, they are already at a learning disadvantage.

As grade one and two enrollments comprise almost half of the total school enrollment, the stakes are high and the rewards great for "getting it right" in the first few years of schooling. From the early 1990s until now, the Government of India has experimented with a number of 'learning improvement programs'. The Minimum Levels of Learning approach was the first of such programs and attempted to establish a competency-based curriculum. In the late 1990s, curriculum revisions and teacher training programs such as the District Primary Education Program were guided by a 'child-centered, activity-based teaching' methodology, but showed little gains in learning.

The government is currently implementing a national effort to universalize elementary education called Sarva Shiksha Abhiyan (SSA), which was first launched during the 2000-2001 school year. The main focus of this initiative is to improve the quality of education, as demonstrated through an increase in learning outcomes. Under this program, states can now include an additional 2% of their total budget for supporting initiatives that focus on quality education initiatives. The Ministry is promoting the use of these funds for reading enhancement programs. Some states are unsure about how to effectively spend these funds, providing an opportunity for outside organizations to help guide this spending and partner with state governments to bolster their reading programs.

The government's emphasis on learning outcomes has spawned a variety of state-level 'learning enhancement' programs. Most states have now realized that the low learning outcomes in later primary or upper primary grades are a direct result of the inadequate language skills developed in the early primary grades. As the language deficit continues to mount with each grade and texts become denser and more abstract, poor language skills prove to be the biggest constraint for learning. Assam's Bidyajyoti Program and Andhra Pradesh's Children's Language Improvement program (CLIP) and Children's Learning Acceleration Program for Sustainability (CLAPS) address reading development in early grades. These programs emphasize reading skills as part of an overall framework for language development that is crucial for improving learning and thinking.

State-level programs such as CLIP and CLAPS are promising, but further efforts are needed to address a challenge of the scale that is present in India. Several studies of classroom observations from primary school have shown that currently, the focus in the early months of grade one is almost entirely on copying alphabets and numbers. Early literacy activities are usually confined to memorization of the alphabet chart. There is little focus on oral work like story telling or open-ended conversation. Drills to help children recognize letters and see how they are used together are not carried out in any systematic manner. Activities and instruction for recognizing shapes of letters and relating them to the sounds, games and exercises to locate letters and *matras* (phonetic and phonemic awareness) are haphazard. This is not surprising given the absence of a reading strategy supported by the government. Teachers are not trained to teach reading, nor are they given the time or resources to do it during the school day. Despite this, the momentum for change is present within the government today. According to the National Curriculum Framework of 2005:

> *While reading is readily accepted as a focus area for language education, school syllabi are burdened with information-absorbing and memorizing tasks, so much so that the pleasure of reading for its own sake is missed out. Opportunities for individualized reading need to be built at all stages in order to promote a culture of reading, and teachers must set the example of being*

*members of such a culture. This requires major means of encouraging reading.*

This recognition is a critical step, but one that only scratches the surface of institutionalizing change that is needed in the teaching of reading in schools. Teachers and parents will need to value the teaching of reading and promote reading both in the classroom and at home. Government will need to train teachers and provide schools with appropriate materials to effectively teach children to read.

Room to Read's Reading Room program has been working towards this kind of change in India for the past four years by providing reading materials, conducting training for teachers, principals and community members, and supporting literacy events at schools. These efforts are described in detail below, as well as lessons learned for enhancing the program to ensure that it is having an impact on children's learning outcomes.


## Reading Room Program in India

The vast majority of rural and urban government schools in India have no additional reading material beyond the government textbook. Textbooks alone fall short of providing children with relevant, engaging materials in their first few years of school. With no time for reading in the schedule, these schools find it challenging to ensure students not only learn to read, but develop a "culture of reading". In response to this gap in resources, Room to Read launched its Reading Room Program in India in 2003 with close collaboration with the state government, including Sarva Shiksha Abhiyan. The purpose of the program is to provide access to appropriate resources for children and to build capacity of teachers by establishing libraries in government and NGO run schools, thereby creating a culture of reading in the school and community. This objective is consistent with the government's interest according to the National Curriculum Framework of 2005 that states:

> *School libraries have been a subject of policy recommendations for a long time, but a functioning library in the school continues to be a rarity. It is important that future planning treats the library as an essential component of the school at all levels. Both teachers and children need to be motivated and trained to use the library as a resource for learning, pleasure, and concentration. The school library should be conceptualized as an intellectual space where teachers, children and members of the community can expect to find the means to deepen their knowledge and imagination.*

*Current Approach*

Since 2003, Room to Read India has established 1,500 libraries across 21 districts in six states and has successfully secured dedicated time in the school schedule for reading. Room to Read India partners with each school for three years of direct support, during which time the library is provided with up to 1,000 books. All of the libraries are targeted at primary-age school children in grades one to five (ages 6 – 14), and offer a wide variety of titles including folktales, fairytales, books on simple science concepts, and books on arts and crafts. In addition, each library contains posters with familiar rhymes to create a print rich environment.

The books are carefully selected from publishers in India as well as Room to Read's Local Language Publishing (LLP) Program. The LLP Program in India works closely with the Reading Room Program to identify topics and themes relevant to the communities in which the libraries are located, and that are missing from student's reading materials. Local writers and illustrators are then commissioned to create original picture story books and other reading materials that meet the identified needs.

Beyond the three years of direct support, Room to Read India supports schools by providing them with access to LLP Program books, as well as other reading resources for teachers such as our quarterly newsletter. We plan to set up Nodal Libraries or book banks at the government's Cluster Resource Centres (CRCs), which will provide schools with a regular supply of books. Cluster Resource Centres are existing structures that provide academic support to 12-15 schools within a defined area. As a part of a commitment to build local capacity, these centers will offer teachers from the surrounding schools refresher training programs on the use of books in classroom teaching.

The Reading Room Program in India trains local volunteers from the communities to work intensively in schools, conduct activities with the students, and train school staff before eventually "phasing out" over the three year engagement period. These volunteers are called facilitators and receive a small stipend for their work. Facilitators receive trainings on: library activities to engage children with books and library resources, rationale for libraries, library maintenance, and sustainability. The facilitators are identified and managed by partner NGOs. These NGOs have been working for decades in their communities and are well-equipped to quickly identify facilitators who are qualified for the position. Room to Read India selects partner NGOs who are highly respected in their community, thereby giving Room to Read immediate validation. Over the four years that Room to Read has been working in India, this model has proven to be more cost-effective and efficient than entering communities alone.

By having a facilitator solely dedicated to running the library and conducting activities with children over three years, teachers can observe the benefits of the library and recognize its value over time. In the libraries that were established four years ago, teachers are taking over responsibilities from the facilitators and are managing the libraries and conducting activities with the children.

In addition to developing NGO partnerships, Room to Read maintains a close relationship with the government and works with SSA in all states except Delhi, where the partnership is with the Municipal Corporation of Delhi. As a result of strong government relationship, Room to Read has been able to secure time in the school schedule for library activities. By working in the schools, Room to Read has been able to build capacity of teachers and administration to manage the library and encourage its use in the classroom. Several new practices have been adopted by the schools to encourage reading. For example, children and teachers present activities during the morning assembly and regularly check out books to read at home. In some schools, the government has nominated a point teacher among existing teachers to manage the library program. Some schools make special arrangements to keep the library open during summer vacations, and teachers and children have worked together to develop new reading material.

While Room to Read India has had many successes with the library program, there have also been lessons learned. Training a facilitator to help manage the Reading Rooms has ensured that the children have access to the library resources. However, Room to Read India added teacher and principal training to the program in order to ensure that teachers take over the management of the program once the facilitators have left.

In addition, Room to Read India has had to address other issues of sustainability. In 2007, Room to Read India started supporting schools beyond the initial three years of support by providing them with access to LLP Program books, as well as other reading resources for teachers, such as a quarterly newsletter. They are planning to set up Nodal Libraries (book banks) at the government's Cluster Resource Centres (CRCs), which will provide schools with a regular supply of books. Cluster Resource Centres are existing structures that provide academic support to 12-15 schools within a defined area. As a part of a commitment to build local capacity, these centers will offer teachers from the surrounding schools refresher training programs on the use of books in classroom teaching.

The greatest challenge that Room to Read India has faced is that many children in India come to school not knowing how to read and struggle to attain literacy skills. Establishing libraries with culturally relevant books addresses the lack of resources that is evident in Indian government schools. Their training program ensures the materials are well-utilized by teachers, principals and facilitators. This model has been effective in reaching children who already know how to read and encouraging them to read more, but it does not address the needs of children who cannot read.

Room to Read India has come to recognize that in order to fully foster a "culture of reading" in schools, teachers must also teach children to read and these efforts must be reinforced at home. With so many children entering primary school with no reading fundamentals, it is clear that in order for the library program to have the desired level of impact on all children, a reading program that engages teachers and parents must be developed in conjunction with the library program.

In order to address this issue, Room to Read India has begun developing the Primary Reading Enhancement Program (PREP). The initial work on this program began in 2007, and the program will be piloted in July 2008. The details of PREP are described below.

## Primary Reading Enhancement Program

In response to chronically low reading levels in India and the absence of a national reading program, Room to Read has developed the Primary Reading Enhancement Program (PREP). Having established over 1,500 libraries in eight states across India, Room to Read has developed an intimate understanding of how schools are failing to teach children to read and believe PREP addresses these failings by offering a long-term, systemic response. PREP consists of a set of teaching materials called a 'Reading Kit,' which contains locally-relevant teaching tools including conversation cards, rhyme and poem books, and picture, word and letter cards. A complementary activity book for teachers, designed by combining phonics and whole-language learning approaches, provides detailed lessons that make it easy to use for new or under-trained teachers to use. The Kit also includes a student assessment tool as

well as a diagnostic tool for teachers to determine when and where students face difficulties in learning to read.  In addition to classroom tools, parents and the government will be actively involved by supporting reading activities both in and outside the schools.

*Rationale and Objectives of PREP*

PREP is based on the belief that in order to create a culture of reading within schools:

1. Students need to have access to engaging materials that effectively support their learning;
2. Teachers need to be trained to teach reading;
3. Schools need to provide time for the teaching of reading;
4. Parents and the community need to support and supplement the teaching of reading; and
5. Government needs to commit resources to the teaching of reading.

The long-term vision is for schools to value a "culture of reading" and thus consider themselves to be "Reading Schools".  Room to Read has defined a "Reading School" as a school in which:

- Reading is an integral part of the overall language strategy
- Reading is both a structured and unstructured activity at school
- Parent and community participation in the teaching of reading is valued
- Teacher-training to teach reading is institutionalized
- Remediation is offered to students who need additional support in learning to read
- There is a child-friendly environment
- A student-centered approach is valued in the teaching of reading
- A variety of books and reading materials are used frequently both in and out of schools to teach reading and other subjects
- In areas where the home and school languages different significantly, schools will ensure children transition to the school language in the early grades

Based on current realities in India, such a school would require significant behavior and policy changes by teacher, school administration, communities and within state and national governments.  Teachers would need to value the teaching of reading and encourage parent and community participation in the teaching of reading.  They would need to rely not just on textbooks but on supplementary reading materials, and even create locally-relevant materials themselves.  They would need support from the government to teaching reading in the form of advising, training and time allocation in the schedule.  Parents and communities would need to develop a sense of ownership in the teaching of reading in schools.  This might mean regular, active participation in the schools, and it would definitely mean facilitating reading at home.   From the government, supporting "Reading Schools" would mean including the teaching of reading in its curriculum from the very first day of school.  It would mean supporting pre-service and in-service teacher training in reading instruction.  These are the long-term outcomes Room to Read is working toward with the development of PREP.

*Approach and Materials*

The two main camps in teaching reading are the phonics approach and the whole-language approach (using extensive reading, pictures and contexts to learn to read).  Consistent with

current research trends, PREP adopts a "balanced" or "mixed" approach that combines both phonics and whole language activities. The program begins using a whole language approach which allows children to actively participate using their own vocabulary, rather than words dictated from textbooks. It then shifts to a more phonetic approach like that of the textbook, closely examining letters and words. Listening, speaking, reading and writing are integrated in nearly all lessons. It follows the principal of "spiral learning" such that the same stories and content is revisited through the intervention at different stages of learning and with activities of varying degree of difficulty. Not only is this pedagogically sound, but using the same materials at different stages increases the Reading Kit's cost-effectiveness.

The Kit is comprised of the following materials:

1. **Picture Conversation Charts.** These charts depict local scenes familiar to the child and likely not found in their textbooks. Children are therefore more likely to participate in a conversation using words familiar to them. The kit contains conversation cards of different states, therefore exposing children to the way of life in other parts of India.

2. **Rhymes and Poems.** Rhymes and poems help children to develop systematic anticipation. They contain linguistic patterns that are easy to memorize and can be written on paper and posted on the wall to help create a print-rich environment. The rhymes and poems are also locally-relevant.

3. **Picture Stories (same stories with and without text).** Teachers can show and read these stories to kids. Later, the kids can work in small groups to re-tell the stories, moving towards more structured and decoding reading approach.

4. **Picture and Word Cards.** These cards can be used to identify words in the conversation charts and to match words to pictures. As children move from one stage to another, these cards will enable them to construct words and sentences and to make their own stories.

5. **Collection of Graded Story Cards.** Graded story cards allow for children of different levels to participate in this exercise at the same time. Children can advance through the story cards, giving them a sense of accomplishment.

6. **Activity Book for the School Teacher.** The activity book provides teachers with a series of scripted questions and lessons to use with the kit. Novice teachers can easily follow the lessons directly from the book, while more experienced teachers can use it to generate ideas. For example, it contains open and closed-ended questions, skill-based exercises and games, puzzles, and pre-writing and writing exercises. Activities are designed for large groups, small groups, pairs of students and individual students. The activity book also provides the teacher with the rationale behind activities and the short term and long term objectives as well as explicit connection between the kit materials and the textbooks.

7. **Reading Assessment Tool.** This tool will provide teachers with feedback on the progress of each student. It is designed to be administered at the beginning and the end of the year, informing the teacher if the student is prepared for the next grade and providing Room to Read India information on the effectiveness of the intervention.

The Reading Kit materials both complement and supplement the textbooks. They reinforce and add to the desired competencies of the curriculum. They are also relevant to children from all states. The conversation charts, for example, depict scenes from different states within India. Furthermore, the teachers are trained and the activity book contains lessons to develop locally-relevant teaching materials. By associating print with images familiar to the child (those of the textbook are not necessarily familiar to the child), children simultaneously decode and construct words and later sentences. It should also be noted that for children across Delhi, Rajasthan and Uttarakhand, there are only minor variations in their home languages, which are dialects of Hindi. Therefore, language-adaptation of the Kit is not necessary.

## PREP Pilot

The PREP pilot will take place in the three states of Delhi, Rajasthan and Uttarakhand. PREP will be implemented in a total of 180 schools over the two-year pilot: 150 schools with a Room to Read library and a Room to Read facilitator and 30 schools with neither. This approach will help Room to Read to understand the issues PREP might face when expanded to areas without a Room to Read presence.

The objectives for the pilot are:

- Students will read with improved fluency and accuracy
- Students will show an increased interest in reading
- The government will recognize the importance of teaching reading as part of the teaching-learning practice
- Teachers will recognize the importance of materials other than textbooks to teach reading, including the Reading Kit
- Teachers will be able to identify areas of difficulty in students learning to read
- Parents and communities will be acquainted with PREP and classroom changes related to the teaching of reading
- Parents and communities will be aware of the opportunity to participate in the teaching of reading at schools
- Government teacher-support structures will recognize PREP as a potential solution to effectively and efficiently teach children to read

In order to reach these objectives, Room to Read India will focus on activities with children, parent and community participation, government participation and advocacy, and student assessment.

*Activities with Children*

In the 150 schools with Reading Rooms, facilitators will be the primary implementers of PREP in Year 1 but will be phased out during Year 2 in place of teachers. As described above, facilitators are individuals from the community who have completed at least grade 10 (some have a college degree). They have been working in the target schools since July 2007 as part of the Reading Room Program, setting up the library and conducting activities with the children. In the upcoming year, they will implement the reading program using the Reading Kit and library materials and conduct regular activities associated with the Reading

Room Program. In addition, they will work with parents and the community to generate interest in support for PREP.

*Parent and Community Participation*

Parents and the community play an integral role in supporting children's reading by participating in activities at the school as well as reinforcing them at home. From the beginning of the PREP pilot, parents and communities will have the opportunity to learn about the program – both what their children will be learning in school as well as strategies for their active participation in, and reinforcement of their children's learning.

Room to Read will share the results of the baseline assessments with parents and also share strategies for improving the reading abilities of their children. They will be invited to participate in organizing Parents' Days, where they will have the chance to witness their child's progress. They will be asked to participate in school activities such as story-telling or reading a book. Room to Read will also encourage the trend already taking place in India of parent participation in school activities over summer break. By engaging with parents through these activities, they will develop a sense of ownership in their child's reading learning both in and out of school.

*Government Participation and Advocacy*

Room to Read has a history of strong partnerships with state governments. By maintaining this close working relationship with governments, Room to Read is more readily accepted and valued by schools and teachers. This is also critical for the long-term sustainability of our work. Room to Read's government participation and advocacy strategies for PREP are based on these beliefs.

Room to Read will engage with the Delhi, Rajasthan and Uttarakhand governments from the beginning of the pilot and will have ongoing interaction with them throughout the project. We will share information with state and local-level governments through regular meetings and reports.

Our government participation and advocacy strategy is not only information sharing, but we will also actively and regularly solicit feedback from the government to inform our model. As such, we anticipate that our final model will address potential concerns and considerations of governments, and will therefore be well-positioned for a large scale roll-out following the pilot.

*Student Assessment*

There are three main tools for student assessment in the PREP model:

1. **An assessment tool used for baseline, mid-term and final assessments of students' reading abilities.** This tool is in draft form and we plan to hire an assessment expert to ensure it captures the information needed to determine a student's reading level
2. **A diagnostic tool to help teachers identify where students are having difficulties learning to read.** This tool will be administered by teachers to students who are not progressing or who are having a particularly difficult time learning to read. It will

pinpoint a particular skill or set of skills a student is having trouble acquiring so that the teacher can tailor his/her teaching appropriately. The tool will be developed by a local consultant.

3. **Continuous assessment.** As part of the structured lessons in the activity book, teachers will be presented with specific activities that can be used for continuous assessment. Information from these assessment activities will not only inform a teacher about the progress of an individual student, but also about the progress of the class as a whole.

*Anticipated Challenges*

PREP has great potential to have an impact on the culture of reading in government schools in India. However, as with any educational intervention, there will be challenges. These include:

- Working with teachers that may be resistant to change.
- Children's irregular attendance, which makes it difficult for teachers to build upon skills.
- Ensuring participation from parents that have competing priorities.

## Conclusion

Room to Read is committed to developing a culture and habit of reading among children. From libraries to trainings and now to a structured reading program for students and teachers, Room to Read India has developed a locally-driven approach to teaching young students to read in their first years of school. The PREP model is based on the belief that in order to create a culture of reading within schools, students need to have access to engaging material, teachers need to be trained to teach reading and to use this material, parents and communities need to support reading both in and out of schools and government needs to commit resources, including time, to the teaching of reading.

Room to Read will continue to work globally to develop library programs that are an effective in addressing the literacy gaps in developing countries. The interventions will look different in each country, and will be based on locally identifies needs.

## References

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Rosenberg, D. (1998). Getting books to school pupils in Africa-Education Research Paper No. 26. Department for International Development

## Statement of Originality

**Photos**



Children in a government school in Delhi.



Many schools in Delhi do not have furniture or print on the walls.

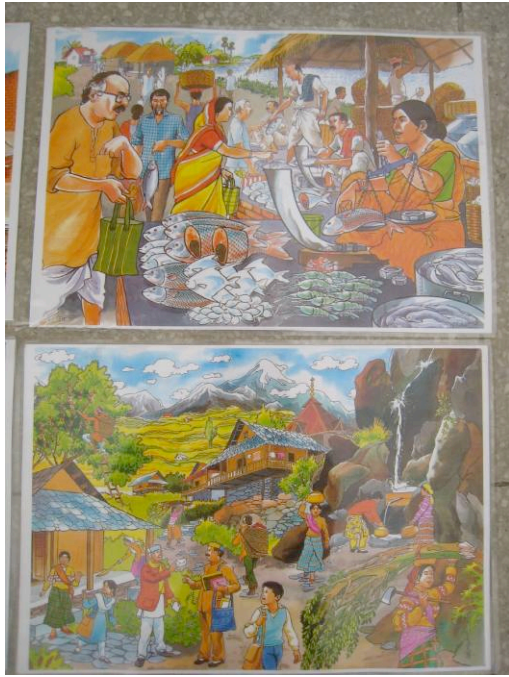A facilitator assisting children in the selection of books.


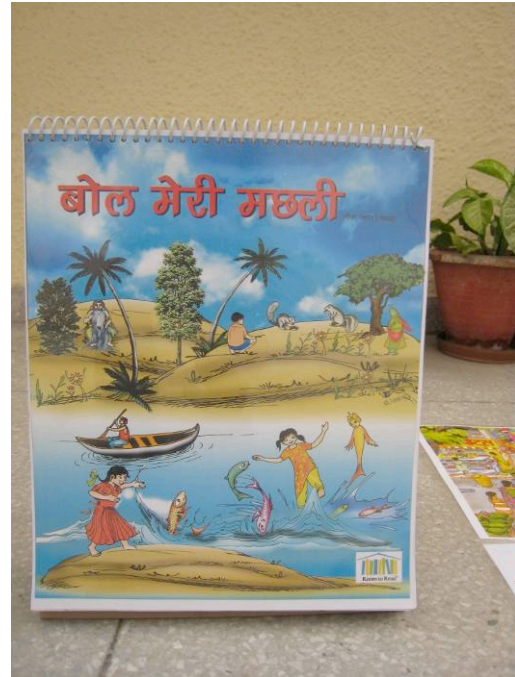Storage for books in a shared classroom library.

Creative ways of displaying books without furniture.


Activities in a Room to Read library.

Conversation chart from PREP.


PREP rhyme and poem book.


Picture and words cards from PREP.

# Sparking a Worldwide Conversation on School Libraries 2.0

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*The guest co-editors of the School Libraries Worldwide special topic issue on New Learners, New Literacies and New Libraries provide a summary of the key goals of the issue and the worldwide conversation they hope to spark by sharing a diverse set of articles and online resources. Details are provided on developing the journal issue as an open source, online resource; the call for proposals; and the subsequent review process for the issue. The editors provide a further synthesis of key points suggested throughout the review process and the subsequent "publication" of the issue. Questions are raised about reluctance from the field to accept the notion of new learners and new literacies and a tactic claim that these issues are already being addressed in school libraries. The challenge is given for the readers/viewers of this special issue to get engaged in the conversation by responding at the SLW Blog.*

*School Library 2.0*

## Background

Since the last IASL conference in 2007, no topic has dominated the school library literature more than the impact of Web 2.0 and the increasing demands for digital literacies for all learners. Evidence has emerged that today's learners think, work, play and create in ways different from their teachers and parents with a seamless integration of a wide variety of digital technologies into their in-school and out-of-school lives (Asselin & Doiron, 2007). These "new learners' are entering our schools and school libraries in growing numbers and teacher-librarians are seeking ways to transform school libraries into effective and engaging digital learning environments.

As Guest Editors for the July 2008 edition of *School Libraries Worldwide,* we wanted to explore some of the current research and emerging notions of School Libraries 2.0. By this we mean implications for libraries of Web 2.0, or "the trend in the use of World Wide Web technology, social software and web design that aims to enhance creativity, information sharing, and, most notably, collaboration among users"(Wikipedia).  Library 2.0 entails "both physical and mindset changes that are occurring within libraries to make our spaces and services more user-centric and inviting" (Wikipedia).

As more and more educators face the impact of Web 2.0 and as we see emerging what could be called a Learning or Pedagogy 2.0 environment, it becomes urgent to expand school library pre-service training and in-service professional development to meet the literacy and learning needs of the Net Generation (e.g. Oblinger & Oblinger, 2005). Fortunately discussions and resources about this challenge are rapidly appearing, many appropriately within Web 2.0 environments (e.g. Classroom 2.0, iBrary, School Library Learning 2.0, and Library 2.0,). A common issue arising across these communities is the need to critically question long held tenets of school libraries and create a new research-based vision that will accord with the current economic and social directions driving educational change (e.g. Partnership for 21st Century Learning, 2007; Government of Canada, 2002).

While the influences of Web 2.0 may vary in regions around the world, there can be little doubt that the challenges raised by new technologies must be addressed by the entire school library community. Without facing the new realities of how many people use information and communication or digital learning technologies, we risk a real danger of becoming isolated as print-only learning environments. We need to draw on our traditional leadership in building collaborative teaching and learning activities in order to engage students in new learning environments which harness their innate interests in new technologies and connect their in-school and out-of-school literacy practices. To begin the process of creating a new vision for the international school library community, we posted a call for papers on the IASL website in August 2007 for a special issue entitled *New Learners, New Literacies, New Libraries*. The call is reproduced below.

*Call for Manuscripts*

Effective teaching today must reflect expanding concepts of literacy that encompass the diverse backgrounds of today's students and the new technologies of information and communication. Given the information-rich world in which "Millennial" live, work and play, how can school library programs and classroom reading programs work together to support traditional instructional goals such as a love of reading and learning the disciplines, and new literacy goals such as proficiency in accessing and evaluating Internet-based information? This themed issue introduces the "new" learners of this Net Generation; explores what literacy means in their global, networked lives, and suggests some practical strategies to help students not only become adept users of technology, but more importantly, ethically and socially responsible information users and knowledge creators.

Three questions form the framework for this themed issue:

1) Who are the learners of the Net Generation?
Evidence suggests that those young people born after 1985 have a distinctive personal identity and a multi-modal approach to learning that differ from their parents and teachers. Their skills in embracing new technologies and their multitasking, multi-modal learning abilities are combining with their global social consciousness and desire to work in socially networked contexts to create a unique challenge for schools and school libraries where traditional approaches to teaching/learning dominate.

2) What are the literacies these learners will need to achieve success in the information-rich, global world in which we live?
The one stable feature of literacy across time and place is that it is constantly evolving. What counted as literacy a generation ago has changed dramatically and will

continue to change even faster as technology advances and new technologies emerge. Grounded in the pervasive role of critical literacy, we explore the multiple literacies which are influencing the teaching/learning environment created in school libraries.

3) How can school libraries respond to these 'new' learners and play a significant role in developing these 'new' literacies?

School libraries are in a period of significant transformation. New emphasis is being placed on our traditional roles in promoting and developing a love for reading; new technologies are forcing us to explore new ways of providing resources, connecting to the classroom curriculum and teaching information literacy; and our learners are expecting in-school literacy experiences to capitalize on the out-of-school literacies and experiences they are having. What then are some examples of how school libraries are meeting these new challenges?

## *Developing the Content and the Mode of Publication*

We anticipated great interest in this theme and were surprised at the few inquiries (two) and submissions (two) we received by December (deadline was January 1 2008). During the fall of 2007, we sent the call directly to some people whose work we knew would inform our topic. These people would not normally contribute to school library publications as their work is situated in other areas of educational research We also encouraged those with whom we communicated not to feel restricted to writing traditional research reports, but to use multimedia tools. We envisioned the contents of this issue of *School Libraries Worldwide* (and the structure of the journal blog) as consisting of three main sections – (1) providing overviews of *critical concepts* underlying new libraries; (2) describing *diverse contexts* in which these theories are or could be situated; and (3) a section on *creative expressions* that illustrate key ideas with Web 2.0 tools. In addition, we encouraged potential authors to contribute shorter than normal pieces in order to highlight current and emerging issues rather than reporting research – although we welcomed both. Finally, we encouraged graduate students in teacher librarianship to compose expressions of what they are learning about the changing school library.

We negotiated with IASL Executive Director, Karen Bonanno, and *School Libraries Worldwide* Editor, Dr. Dianne Oberg, that this issue would "walk the talk" and be an online, open-access publication. We published this issue in blog and wiki formats as a demonstration of new ways to publish/share information and to allow viewers/readers to add their responses and comments to the content presented. Thus this issue of *School Libraries Worldwide* was our attempt to create a living example of socially constructing knowledge with Web 2.0 tools.

In the end, we gathered an eclectic set of articles all of which are linked to a variety of web-based resources which support and extend the content in the articles. The authors have varied perspectives and experiences and present a wide variety of issues related to the challenges facing all educators, but in particular, the worldwide school library community. Our idea was to present this core set of articles for all to share and then have readers/viewers explore beyond that core in order to build their own understanding of Web 2.0 and hopefully contribute to the conversation by posting comments at the blog for this issue. In this way, we can explore together the phenomena of social software and Web 2.0 and the influence it continues to have on emerging notions of new school libraries (what some are calling school libraries 2.0).

# Points Drawn from the Process

As reviews of the manuscripts came back to us, we were again surprised at what they told us about the need for a community conversation about school libraries in the 21st century. We had naively assumed that reviewers, being mostly academics, would be in agreement about the need for drastic change in school libraries in response to changes in literacy, who the learners are, and changes in technology, particularly Web 2.0. However, there was as much variation in views within the academics of the school library community as there are among any other groups. We have synthesized a few key points from our involvement in this process as Guest Co-Editors which for us raise serious questions about our own capacity to respond to the current situation and truly move school libraries forward.

We were struck by how often reviewers felt that the articles they received were really just talking about things we already do in school libraries and that we need to basically continue to focus on information literacy and our traditional core teaching goals. While we would agree that critical thinking/literacy have always been parts of what we do in school libraries, that aspect of our work is even more of a priority and more dominant in what and how we teach. For us, this is evident in the way our students (or as we referred to them throughout the issue - new learners) are experiencing technologies in very different ways and yet, when they come to school, they are not being taught essential critical literacy skills in the depth and frequency with which they must be addressed. So while we claim to be addressing the issues of critical thinking/literacy, we must also recognize that these areas are changing in terms of importance and applications within an ever-increasing digital context. This is not simply a matter of advocating for a larger role for school libraries in building information literacy, but a call for a fundamental shift in our understanding of the pervasive nature of technology and how we must arm our students with a wider range of technical and critical skills in order to cope and flourish in this new learning landscape. We cannot think of this as simply part of our usual collaborative resource-based learning process developed with classroom teachers, but as a more inclusive and comprehensive school-wide, even global approach to learning and teaching with new technologies.

In a related second point, we sensed some resistance to the notion of "new learners', the Millennial or the Net Generation, as being much different from past learners. While we would be quick to agree that in some parts of the world access to computers and other new technologies may not be as pervasive, there can be little doubt that for many of us the children and youth who land in our schools and school libraries today have been deeply influenced by technologies; in many ways these new technologies are the interface between them, their learning and their daily lives. Certainly, new learners have much to learn about the effective, ethical and creative uses of technologies for living and learning in today's world and that is where we in school libraries can call upon our traditional leadership roles. We can first of all recognize and respect their relationship with technology and along with them embrace their new learning experiences/expectations. We can respond to new understandings of how knowledge is constructed in a global learning context and become learners along with them.

Part of the resistance to the notion of any real change needed in school libraries that we observed from reviewers may arise from the tendency to narrowly define the major role of school libraries as being information literacy, when in fact there are multiple literacies and multi-modal uses of literacies expected of learners today. Yes, school libraries have traditionally included critical literacy and visual/media literacy as part of their programs as

well, but it has been information literacy that has emerged as the major *raison d'être.* If the readers/viewers can take anything from this issue of *SLW*, we hope it is a growing sense that there are many "new literacies" which our children and youth will need to develop if they are to be fully literate. Navigating digital landscapes, writing in hypertext, using multimodal tools to represent and share new knowledge and engaging in global communication and learning environments call on a wide range of technical competencies, social and cultural values, traditional and new literacies, as well as a commitment to social justice and equity. Our research would suggest that many of our youth are trying to co-exist and function within this world in their out-of-school experiences; it is schools that have narrowed the definition of literacy and school libraries that have narrowed it to information literacy that may be failing to help our youth thrive in the future.

Many of us share a common frustration as we grapple with these challenges. No one seems to have yet shown a model for new school libraries, one we can point to and say "here is an example of a school library 2.0 in action." Certainly as Guest Co-Editors we have not succeeded in doing that either. However, some of the articles and many of the resources we link to at the *SLW* Blog do help us construct some notion of what a 'new' school library may look like. It gives us reason to ask have we as a field been mistaken in trying to describe one vision for a school library and then setting out to create replicas of that vision around the world. Most of us who have worked in frontline school libraries know that no two libraries are exactly alike and maybe this is closer to the idea of school library 2.0 – a school library is uniquely created by its users, from the resources at hand and at a distance which can be called upon to support the construction of new knowledge by the active users of that library. It is a holistic vision of a virtual and a physical space, accessible 24/7 and housing the learning tools needed for a wide range of teaching and learning experiences. It is an open source, open access environment, a social space where users gather virtually and physically to find multiple types of resources and create strongly visual, multimedia representations of their new understandings. We need only to look to our colleagues in academic libraries who are busy converting their libraries to be a "learning commons" where the social gathering traditions of libraries are blended with social learning contexts.

As Guest Co-editors this was most clearly evident in the visioning of school library 2.0 developed by Sharon Doyle and Lilian Trousdell. Their School Library Mash-Up is just that, a multimedia mashing of images, music, and ideas into a vision of what a school library of the future is like. In no time has the adage "the medium is the message" ever been truer that in these times where our youth (and hundreds of commercial enterprises) are combining multiple forms of texts into new multi-layered "texts" which challenge our traditional views of how new knowledge is constructed and shared. Another example is provided by Maryam Moayeri in her Interviews with Young People where she lets the voices of youth and current teacher-librarians speak about what a school library should be like. Are these examples of the products of research/learning that our students should be developing? While many would still hold to the notion that the traditional research essay is still a fundamental skill all students need, we risk the danger that school libraries will be ignored by learners as they press on with both a socially constructed sense of knowledge-building and a compulsion to share their ideas, opinions and understandings with their peers and the world.

One reviewer took particular aim at this form of "knowledge-building" as more or less a cutting and pasting activity with no new understanding being reached beyond the social realm. We would challenge this and say that not only do these products demonstrate the new learner applying a full range of new literacies to create and distribute new knowledge, they

really represent the cutting edge of whole new ways of understanding how knowledge and understanding will be built in the future.

## *A Final Thought*

Our hope is that the readers/viewers of the July 2008 issue of *School Libraries Worldwide* will welcome this issue as part of a larger conversation that is happening in the literacy world and that must become priority in the school library community. You need to get engaged in this conversation and hopefully you will add your comments and feedback to the articles and resources provided at the SLW Blog. Another adage that has become embedded in our cultures is that we need to "Think globally and act locally"; we would challenge that concept and suggest in the school library context we need to "Think locally but act globally" and create a global vision of one Worldwide School Library that is guided by principles of equity, inclusion, and social justice, where our local libraries are nodes in this worldwide network and our students connect within and throughout that network as global learners. Perhaps this is what school libraries 2.0 could become.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Libraries of the Ages:

# THE DIGLIBS

Madhu Bhargava

Dean of Libraries

G.D.Goenka World School

India

*Digital libraries are a way to cost effective Reading resources for school librarians. They can build Reading Communities through digital libraries. A case study of G.D.Goenka Schools in India will be presented in the paper. The current economic trends in the Information and Publishing industry will be examined and how school librarians are affected. Digital Libraries as reading resources are a new paradigm that may help to meet the economic parameters of the institutions. The paper will compare digital Reading resources with traditional reading resources and It will establish that 21st century learner is truly digital native and is very confident and comfortable with technology and online reading. It will also be emphasized that it is the format, which is changing, and not the content or its importance. The main goal of this paper is to show how school librarians can adopt strategies to use free digital reading Resources to build reading communities of young and young adult students by providing case studies and a Tool-Kit used by the school.*

*Digital reading resources, reading strategies, reading programs*

## Introduction

"Current economic trends in the information industry are rapidly bringing traditional libraries to the point of ruin." Brian Hawkins wrote in his article, "Creating the library of the future: Incrementalism won't get us there!" in 1994 at Brown University. His argument at that time is proving to be true that "urgent financial crises of our libraries make it clear that the traditional library will not scale into the next decade."

Among the trends Hawkins cited at that time were the rapidly increasing amounts of available and declining drastically purchasing powers of the libraries. He called for the new and revolutionary paradigm to be developed that would meet the economic parameters of the institutions and would still support the traditional values of libraries and scholarship. For all of us present here to this Conference, DIGLIBS are that paradigm. In Hawkins words, DIGLIBS provide "universal access by students and faculty to information in all possible media via a single multifunctional workstation." According to him digital library is specifically both a solution to the economic problem facing libraries and a vehicle for a new functionality that promises to transform scholarship and bring the cultural, social and economic benefits of information to the many."

*1.1 Building Reading Communities in School Libraries through Digital libraries.*

The world of our students in schools has become more and more visuals based and with new technology in hands, willingness to hold print is substantially falling. This is global impact. We are witnessing technology boom all over. For underprivileged low technology and for privileged high technology but most of us have technology or the governments are looking into it.

"The school library is an educational and cultural environment where individuals are exposed to ideas through the use of print and non-print resources in many media formats. The school library fosters the development of life-long learning abilities and a love of reading in its students." (Markuson, 1999)

*Easier said than done! How do we do it?*

The children in front of us have a different childhood than what we have had. It is a challenging task to plan reading program for the student community. http://www.icdlbooks.com or http://www.magicalkingdom.co.uk/story.html, http://magickeys.com were the guideline for my future planning and designing of reading programs for the student community at G.D.Goenka Schools. The exciting journey began with designing of Information Literacy projects which followed 'big 6 model'. Eisenberg and Berkowitz (1987) The students were required to read online from digital or E-libraries and explore information through other links. For example the online book on the web site http://www.magickeys.com students were to read a Chinese tale originally written by Po Chung Ling, retold by Teresa Ng and write a T.V. commercial for the book reflecting Conservation of Wild Life. Another group of students read Daniel's Ride on http://www.icdlbooks.org and described an experience they've had that was like the experience of the character Daniel and they had to think of their dream and write that how much time they think they would take to make it real? In a short while, we realized that it was happening and the journeys became more and more enjoyable with more and more sources and ideas.

*1.2 How it started in G.D.Goenka World School?*

Reading is fundamental to be successful in any subject. It is an arduous task for the librarians to help develop reading skills in a strategic manner particularly when students come from different backgrounds and have varied reading levels. Technology offers potential support to the librarians who can use digitized reading resources to improve reading skills of the Digital Natives who are actively engaged with Technology.

We have a large percentage of students who speak second languages like Korean, Japanese and Spanish etc, in the first category, followed by diverse reading abilities, making Librarians task very challenging while designing Reading programs involving whole school

community. Students in the second category are equipped with new technology with least or no interest in reading. One can see them always engaged with games, music, movies, photographs, communication and everything else resulting into lower academic grades.

I came across the International children's digitized library collection in 2004 and introduced reading to the students in library lesson on library computers. The student response was astonishingly positive.

We explored more of E-books collections and created a mock tail of www.icdlbooks.org , www.pagebypage.com , www.magickeys.com with an assignment which they would work and send me through e-mail. Student response graph went up dramatically and with evidence in the form of e-mail.

We started building up strategies and collection to promote and build reading communities through digital libraries.

## 1. Current Economic trends in the Information and Publishing industry

Rising prices of print resources, falling library funds and exponential growth in the graph of resources and information are posing the two most fearsome challenges to libraries worldwide. What are these challenges? Of course the challenges are like beasts sleeping next to us. Whatever part of the world we are in, we are aware of every grunt and twitch of the beasts. And the beasts are Economic Survival and Preservation of resources.

### 2.1 How School Libraries are affected by the Economic trends?

What I am going to write now has been written by many and all in very many words and yet I must write the same in yet different words that future development of an individual is linked to reading habits of a person. It is the urgent responsibility of school libraries to provide students with reading opportunities which suit them the best.

Schools are caught in dizzying tempo of globalization and technological change and libraries are trying to survive from economic pressures, declining finances. It is at this backdrop, it is most appropriate to present Indian scenario about book publishing industry.

Mainstream publishing today caters to two kinds of markets-quality books for the more discriminating English-speaking urban elite and mediocre to poor quality books for the masses made up of India's vast and growing middle class. This marketing frenzy and hype leaves the huge majority of Indian children out in the cold. For the publishers, it is a challenge to produce financially viable books for children. It is all about gap between the two types which you can gauge by analyzing the following table of purchase cost of imported books for children up to age level 10 years and locally produced books.

| Publisher | Title/ISBN | prices | Indian currency converted |
|---|---|---|---|
| Usborne | 978-0-7460-5226-6 | UKP 4.99 + freight | |
| Scholastic Inc | 0-439-33619-8 | US $ 3.99+ freight | |
| Story sack, UK | Code RH9965 | UKP 5.99+ freight | |
| Raintree, UK | 1-844-43509-8 | UKP 6.99+ freight | |
| Oxford, UK | 9780192727046 | UKP 5.99+ freight | |
| Scholastic, India | 0-439-01120-5 | INR 100.00 | US$ 2.36 |
| Penguin, India | 0-14-029448-1 | INR 250.00 | US$ 5.90 |
| Picador, India | 0-330-49131-8 | INR 225.00 | US$ 5.31 |
| Children Book Trust, India | 81-7011-768-2 | INR 22.00 | US$ 0.51 |

School Libraries in India have little or no budget for resources. Librarians have to justify the school management for ever declining financial approvals to purchase resources. The approvals are need based and librarians are on the lookout for alternatives.

Above analysis clearly indicates that it is a daunting task for school librarians to create a balance in the quality and cost while preparing a financial proposal for both the varieties of books. The big question is exposure. What exposure is being given to the students? Are they exposed to the literature that includes realities of the world and that of the world outside through stories and pictures?

## 1.2   Digital Libraries emerging as New Paradigm

"Digital Libraries are emerging as the most cost-effective way to preserve and distribute an ever increasing base of information resources." (Record, 1996).

*What is a digital library?*

"Digital libraries combine the historical wealth of the traditional library with the advanced technology-digital storage, processing, and communications—of information management systems. Digital libraries enable users to manage tremendous amounts of information as well as many types of media; to conduct searches that would be impractical manually; and to perform rapid information distribution and retrieval across great distances.

The result is that library information is more accessible, more usable, and simply more valuable to faculty, students, and administrators—even, perhaps, to scholars the world over." (Record, 1996).

"Digital Library is a confusing term to the librarians. It seems that the word "library" has been appropriated by many different groups to describe their areas of research or signify a simple collection of digital objects. (Cleveland, 1998)

But the focus of this paper is looking into the reading strategies which may be adopted by the school librarians to enhance or introduce the use of Digital Libraries to school students. The resources mentioned in the Tool-Kit are either Digital Libraries or e-Books as per the working definition given below:

"Digital libraries are organizations that provide the resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities." (DLF, 1998)

The E-book paradigm is also evolving since the time in 1987 when the first hypertext novel by Michael Joyce , 'Afternoon Story' and fast forwarding to 21$^{st}$ century with the Stephen King's online novella, 'Riding the bullet', in 2000. A plethora of Digital Libraries and E-resources is available for free and for purchase, for downloading and for printing off the web.
Truly the dream of Brian Hawkins has become a reality!

## 3. Digital Reading Resources vs. Traditional Reading Resources

If you have technology tool, rapid and easy access to information and books, archives and images is just few clicks away.

- Traditional libraries have scarce space; potential of digital libraries to store much more information is enormous.

- The Internet connection takes you to Digital Libraries instantly; physical effort is the pre-requisite to access the traditional library.

- 24x7 availability of Digital Library resources; limited access in case of traditional libraries.

- Digital libraries may be accessed by multiple users globally; traditional libraries have limitations of space and time.

- Digital Libraries provide access to much richer and diverse content in a more structural manner whereas traditional reading resources collections offer time consuming searches.

- Digital library collections offer user friendly search and navigation facility then the conventional search via catalog or OPAC in traditional searches.

- Digitization is a solution to preservation and conservation of resources whereas traditional libraries struggle with the same issues.

- Networking with other digital library resources is possible easily, making a seamless resource sharing possible which is just not possible in other case.

- Cost of maintaining digital library operations are low cost than traditional library but it is also true that digital libraries do incur large costs for digitization equipment, maintaining online access and migrating to new technology when it is obsolete. But it is also true that there are free digitized reading resources in abundance for School librarians to motivate their students to use and benefit particularly in developing and underdeveloped countries and don't worry about funds.

## 3.1 The Digital Natives

"What should we call these "new"students of today? Some refer to them as the N-(for Net)-gen-or D-[for digital]-gen. But the most useful designation I have found for them is Digital Natives. Our students today are all "native speakers" of the digital language of computers, video games and the Internet." (Prensky, 2001)

"The digital age has brought radical changes to our students. Our D-Generation students have an unprecedented access and appetite for Technology. Our children are ever ready voracious consumers of digital games, videos, music and web. They are being addressed as 'digital natives' who have enthusiastically embraced technology as their friend and are very comfortable at study, work, play, communication and entertainment (Culligan, 2003).

But it is ironical that our schools and libraries are frozen in the 20th Century in most countries including many developed. There is dark little joke in the education world: "Rip Van Winkle awakes in the 21st Century after a hundred year snooze and is, of course utterly bewildered by what he sees. Men and Women dash about, talking to small metal devices pinned to their years. Young people sit at home on sofas, moving miniature athletes around on electronic screens. Older folk defy death and disability with metronomes in their chests and with hips made of metal and plastic. Airports, hospitals, shopping malls—every place Rip goes just baffles him. But when he finally walks into a school room, the old man knows exactly where he is. "This is a school", he declares, "We used to have these back in 1906. Only now the black boards are green."(Wallis and Steptoe, 2006)

The digital natives are amazing people for whom the Internet and new technology is not produce of transformative era, but like water and electricity and many other available basics of facilities, have always been there. Fast track information, networking, multi-tasking are the common features of D generation. The digital native can do his or her research work while listening to the favorite music, chatting with four to five people and taking calls in between on the cellular phone, at the same moment expressing boredom!

The web of digital environment is already set even in developing countries. It is challenging for digital migrants, like me or many of us especially in developing countries, to design an educational curriculum which sharpens the digital literacy skills of digital natives.

All these facts at the back of mind with new technology in hand which is encouraging, librarians in developing countries have all the opportunity to design reading programs using e-books, digital library collections for the new age students.

*3.2 The content is the king*

It is risky to predict future but it is almost evident today that future school library may or may not look different but will play the role differently. New research, new information and explorations are leading us into a universe of exponentially expanding knowledge. Globally speaking e-resources are replacing print though the demise of the book is not evident for a long time. And it may not happen the way it happens in the mind of the digital migrant librarian!

The concept of the 'book' will remain, but as we see digital formats are taking over print. The look and feel 'bookish' will be replaced with the high tech optical devices. Where is the worry? If we look at the development of any current devices, be it vehicles, phones or any communication devices and compare the ancient formats to that of today…what we understand is that it is not the format, which is critical, but the content. The decision of format should be consistent with the quality and utility of information in current times.  No wonder in an information rich and technology driven society e-books and digital libraries are fast replacing printed texts. It is high time that we give a push to the school libraries out of 20<sup>th</sup> century so that Rip Van Winkle continues with the surprises!

*3.3 Strategies to build Reading communities in Schools*

Availability of DIGLIB resources is not enough. The pedestrian element is building reading community of students in school. How do we do that? Librarians may find useful the following repertoire of Reading Strategies to develop reading communities in school.

- Demonstrate your familiarity and skill to navigate the contents of digital resource you wish your students and faculty members to use. Give presentation of the same at appropriate times to develop use as these resources are invaluable for use in teaching language, literature, history, science and much more. Our recent presentation on the E-books on www.magickeys.com  in the assembly of grades II-V, yielded results in the form of enquiries of 'more such sites', faculty response in the form of developing language assignments based on the highlighted words in the stories of this resource.

- Collaboration is the key strategy to involve whole student community. Address the teaching community who lack time to explore resources for their lessons. There is immense wealth of digitized collections of primary resources in science, History, Literature, Language for research and curriculum oriented areas. The school librarians can save on funds and time and  provide universal accessibility to the teaching

community by developing a classified collection of digitized and e-Resources at hand. Collaborate early to provide optimum benefit to the faculty and send the resources on their desk top and they will find their way. In our institution http://cvc.cervantes.es and http://www.icdlbooks.org are most loved collections for language teachers.

- Develop lesson plans and assignments which would necessitate the use of digital resources. One such example is designing of fun filled assignment 'Reading Mission' for the holidays which challenge students to visit the web sites provided and submit the assignment on line or off line. Case study sample one is an assignment which was web posted on www.gdgoenka.com in May 2007.

- One of the prime missions of school libraries is to adopt such strategies that the students become fluent readers. Students should be able to imply thinking, understanding, questioning, visualizing and inferring while reading. It is a daunting task. Our students are very comfortable with the technology and that's what we are eying. Make our students read through technology and give them ample exercise to practice comprehending. It becomes essential for the librarians to select and plan the lessons based on digital reading resources.

- Compile a ready Tool-Kit of free digital resources particularly in developing countries where library finance is mostly the least if not the last priority.
- Create a promotion program following modern marketing techniques for reading and resources and when responded by the student or teacher community, provide recognition and reward points. We used 'AASL @your library' tool-kit for this purpose with A+ result.

- Train The Trainers (The teacher community) to use digital sources in the class rooms by conducting workshops for them.

- Net work with other librarians and share the wealth of digital sources which in turn is bound to grow.

- Provide reading guidance and support to the student community even if they ask from home or elsewhere.

### 4.     The Reading Mission: Case study one

*Strategies used:*

- Create a promotion program following modern marketing techniques for digital reading resources.

- Compile a ready Tool-kit of free digital resources.

*Overview*

The following assignment was aimed at developing innovative and fun filled thinking based reading. It was focused to communicate directly with the students to prompt them to access Digital Libraries mentioned in the assignment from home or anywhere during vacations and communicate with other students and librarian via e-mail regarding their progress in the mission. The program was designed for all K-12 age groups but was particularly aimed at Middle School age group when students are required to develop reflective and response based reading habit. Another purpose of this assignment was to engage students in reading even if they are away from home and are connected to the Internet which according to our experience, they always are. This program was also intended to involve students in discussions with their peer group regarding reading experience from Digital resources. The program was incentives based to create intentional competition for reading more and more.

(The assignment was designed with colors and animated objects)

A note for Parents/students

This summer vacation students @G.D.Goenka World school will accomplish ONE TOP SECRET MISSION!

*Aim:* This initiative is aimed towards encouraging students to read and discuss books in a lively and engaging manner and help discover the pleasure and excitement of reading.

Reading Mission is planned so as to promote a sense of achievement among young readers. It will empower children by encouraging them to make their own book selection.

"Another objective of this mission is to help our children in becoming effective members of the global community, who exhibit tolerance and respect for diverse cultures, languages and ideas-by making the best in children's literature available online FREE OF CHARGE." ( From ICDL Mission statement)

Students from Grade one to Grade eight shall be the 'READING MISSION AGENTS' and will use digital archives of a Project of University of Maryland in cooperation with Internet Archives. There are more of interesting, interactive and child friendly sites to read books of their choice of language, country and type. Then they will work on bright SPY IDEAS to communicate with other 'Reading Mission Agents'

The Mission is to read Ten Books in Sixty Days, no matter where you are!

The Mission is high and students who will achieve this will be given GREEN BADGES specially designed for this Mission. Who get closer to the Mission will get YELLOW BADGES and who will be slow, will get RED BADGES, depending on the number of books read and 'SPY IDEAS' accomplished, submitted after the holidays. By next summer our mission @ GDGWS is to have all students with GREEN BADGES!

Acknowledgement:

The Dean of Libraries, G.D.Goenka World School, has compiled this Program and some ideas have been adopted from British Council library, New Delhi and from the web site http://www.readingmission.org.uk

Hi Kids!

Are You Ready For The Challenge?

THE READING MISSION

This Program will be for Two Months (summer vacations)

You can click here or open on your own the following web sites:

www.childrenslibrary.org

www.readingmission.org.uk

http://www.magickeys.com/books

www.bygosh.com

These sites can be very good friendly libraries!

And a treasure of interesting books.

I promise you will enjoy these!

You can register with some of these, which is very very easy!

Any problems, mail to

Madhu_bhargava@msn.com

YOUR MISSION IS
To READ Ten BOOKS OF YOUR AGE LEVEL

- Of your choice of Country
- Of your choice of Language
- Of your choice of type
- Work on the 'SPY IDEAS' given right here.

- You can take out a print out and to make the mission fun filling and exciting.
- You can accomplish as many ideas as you can and your success depends on that!
- You have the freedom to use pens, stickers, colors, pencils and any other form of art, craft, and computer skill to reveal the content on the activity sheet.
- These Holidays hundreds of Goenkans will READ from this site but no one will know who is reading what!
- If you want you can send clues to your friends, and more the clues sent (I would ask for proof), higher the credit! So this summer get connected with your friends!

Create a Reading Mission Folder

And keep all the work sheets in that

After the holidays

Submit the accomplished activity sheets

To your Form Tutor

Latest

By the end of 1$^{st}$ week of August 2007.

These ideas are according to age groups.

Print out sheets as per your age group.

Age 5 to 12 years

Send Top Tips to other Reading Agents

And see them on the school web site on a special link!

Also send a copy to

Madhu_bhargava@msn.com

Maximum number of sent tips may get you prize!

MAKE YOUR MISSION DECISION
(Animated Object)

Where is your Reading Mission going to take you?

Try this simple quiz

And then create your Reading Plan Log

On day 1 of your holidays

And check your targets at every 7 days

Look for excitement waiting for you!

Color the answer in GREEN

Which of these would you like to accompany you on your mission?

a.   Your Dog
b.   Your Cat
c.   Your Friend
d.   Your Brother or sister

Now make your choice of gadget.

a.   Exploding I pod.
b.   Doughnut transmitter
c.   Satellite link sugar bowl
d.   Digital camera toothbrush
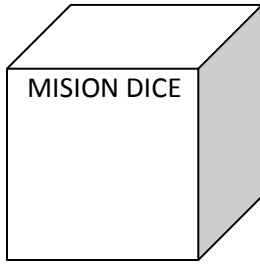
Where's your favorite spy spot?
a.   The skateboard park.
b.   The top of bus.
c.   The school playground.
d.   The tree tower

You're on an observation mission. What is the first thing you should pack?

a.   Binoculars
b.   Lunch
c.   Mobile phone
d.   MP3 Player

Hay spies! If your answers match with my answer you get a "gift!"

MISION DICE

Can't decide on your next book for the Reading Mission?

Want to try a dice dare?

Let the dice roll!

Stick this shape onto

Stiff card, cut it out, and fold

Flaps and glue together.

When the dice is ready

Think of a number and throw

Whatever comes?

You may try reading that!

Isn't it amazingly easy!
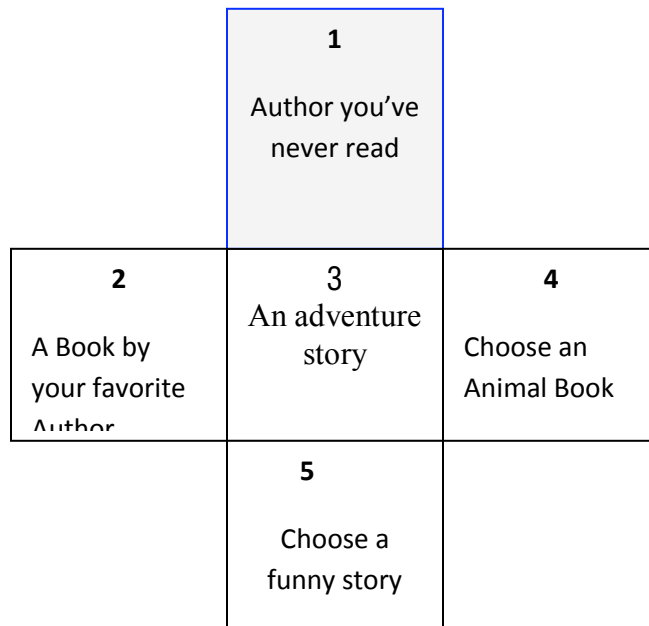
| | 1<br><br>Author you've never read | |
|---|---|---|
| 2<br><br>A Book by your favorite Author | 3<br>An adventure story | 4<br><br>Choose an Animal Book |
| | 5<br><br>Choose a funny story | |

| 6 |
| Choose a |
| scary Book |

Create SPY bookmarks to record the way you felt about a book.

"The Best Book Mark"

Creator

Will get a 'Gift!'

Fold and submit and wait for results!

( A Template for making the Books Mark was given here)

SPOT THE BONES AND WIN A PRIZE!

There are more than 10 bones in this picture.

Find and color

THIS WAS THE HARD ONE!

IT IS NOT SO EASY!

AGES 10-13


Hello the Super Spies! This message comes from your favorite sleuth hound, always remember, a good detective is never without a magnifying glass, a note book, pen and a cunning disguise, so sneak off all the good web sites I have given you to discover a great book today.

Hey!
If you can crack this code, send it to my mail box
Madhu_bhargava@msn.com

I promise you a beautiful "gift" exclusively for you!

Ruthua nanoc layod detaerc kcolrehs Semloh 'Eht Evitceted'
Do it and get a prize!
Mail your answer just now to
Madhu_bhargava@msn.com
ARE YOU SUPER SPY? Do this quiz and find out!
1.      Which of these activities can you do? Tick the boxes

| | | | |
|---|---|---|---|
| Drive a sports car | | Fly a plane | |
| Ride a motorbike | | Ride a horse | |
| Drive a speedboat | | Pilot a helicopter | |

2.      How good are you at these activities? Tick the box

| | good | okay | Terrible |
|---|---|---|---|
| Swimming underwater | | | |
| Snorkeling | | | |
| Doing karate or judo | | | |
| Fighting off sharks | | | |
| Skiing down a mountain | | | |
| Parachuting from a plane | | | |

3.                              How long would it take you to crack open a safe?
   a)        10 minutes
   b)        60 seconds
   c)        3 seconds

4.                How many languages do you speak?
    a)             More than 5
    b)             2-4
    c)             only one


5.                Imagine you had 5 seconds to defuse a bomb!
How would you feel?
    a)             Very calm
    b)             Scared
    c)             In total panic


6.                How good are you at cracking codes and
puzzles?
    a)             Okay if you have enough time
    b)             Brilliant- a super brain
    c)             You never crack the code!

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Key to Super Spy!

25-32—Super Spy
15-25—Assistant Spy
0-15---Go To Spy School

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AND THE CRETOR OF THE BEST ONE GETS A WONDERFUL GIFT!

DESIGN AN INNOVATIVE GADGET, WHICH A SPY CAN USE!

IF IT WILL WORK, YOU GET SCIENTIST AWARD!`         `

AGE GROUP 10-13

READING LOG

| TITLE | AUTHOR | START DATE | PLACE WHERE YOU ARE | FINISHING DATE |
|-------|--------|------------|---------------------|----------------|
|       |        |            |                     |                |
|       |        |            |                     |                |

IDEAS FOR YOU TO WORK OUT!

1. Plan a dinner party for the characters you liked the most. Write instructions to the catering staff, including the menu, table setting and guest list of celebrities.

2. Make a TV script for one scene of the book you have read.

3. Write a different ending of the book you have read.

4. Pretend you are from another century and you found this book in a time capsule. Make a list of questions would you have about the characters, setting and events in the book.

Brainstorm other titles for the book and design illustrated Book Marks that relate to each of the titles. Submit the Book Marks in the Reading Mission Folder. The Best entry will get a price and appreciation Certificate and 1 extra grade for Holidays assignment! Design an innovative gadget for a present day spy. If you show it working and give the report, you stand a chance for scientist award.

Acknowledgement: Some of the spy ideas have been adopted and modified from the original idea from the web site: www.readingmission.org.uk

2007 Appreciation Certificate and gift was awarded to Arshiya Wadhwa of Grade VII

*Strengths and positive results of the program:*

- 40% students browsed through the instructional plan and sent quarries or communicated through e-mail.

- 70% students tried the work sheets like 'Cracking the Code' and Super spy quiz.

- 50% students (age group 10-13) opened the web sites and tried to read and filled up the Reading Log.

- 25% students submitted Reading Mission folders with average work.

- 10% students submitted excellent Reading Mission folders.

*Weaknesses of the program:*

- The program did not set any parameters for those who did not do anything.

- It took long to reply mails which may have resulted in dropped levels of interest.

- We could not check the networking of the students. We had to rely on data given by students.

- There was no Collaboration with Teacher community for the reason the program was taken as Library assignment.

*Strategies which could get better outcomes:*

- Train the Trainer (TTT) could make these results many folds if this was done in collaboration with teaching community.

- Networking with other Librarians and asking for better support from the Technology department of the institution.

On the whole it was an encouraging outcome and it was away from assignments full of drudgery and it was much appreciated by the students.

## 4.1   Project Book Club: Read For Fun@ Cyber Space: A case Study

*Strategies used:*

- Provide Reading guidance and Support.
- Collaborate with the Teacher community

*Over view:*

To become independent readers and comprehend text, it is important for our middle grade students to follow guided reading instruction, which majority of our student's lack. Dialogue with self, Visualization and connection with self and text help students become successful readers.

We created a set of questions based on QRA paradigm (Buehl, 2000) and implied on students. A presentation on, Right There, Author and Me, On My Own, Think and Search was given collectively and Sample story Daniel's Ride in digitized form at http://www.icdlbooks.org  was presented.
Student Objectives:

- To Work in groups (not more than 6) and choose a team leader.

- Browse the web sites http://www.publicliterature.org and http://www.icdlbooks.org  and select two books and discuss in a group the Objective of Reading the books.

- Each group to create at least Five Questions on a given set of QRA pattern.

- Read in School or at Home and discuss in Library, Lunch or any other time physically or virtually by e-mailing or group posting on web.

- The team leader to gather data and the group creates a scrap book based on the reading and the questions.

- The team leader gathers data and together the group cooperates to create a presentation on the set of questions.

- There will be exchange of Scrapbooks and presentations for all to understand what others think, reflect and comprehend about the same text everyone has read.

*Strengths of the program:*

- 100% participation.

- 100% communication.

- Collaboration with the language teacher who suggested the students to choose relevant texts which were related to the curriculum. For example students chose to read Shakespeare and created questions to find answers themselves.

- Grouping the students helped the ones who were not interested, to participate because of team spirit and presence of the team leader.

- With the scrap books and presentation in hand, it was possible for the teacher and librarian to know the levels of student learning out of the texts chosen.

- Dynamics of the team work and leadership were in practice.

*Weaknesses of the program:*

- Some of the students tried shifting the responsibility to the team leader and the team leader gave in.
Over all it was an excellent Reading Strategy to access Digitized Reading Resources and develop Reading communities in the school.

## 5.  TOOL-KIT of Free DIGLIBS for School Librarians

1. List of free e-resources database with annotations organized alphabetically.
   http://www.e-book.com.au/freebooks.htm

2. The Million Book Project.
   Carnegie Mellon University School of Computer Science and University Libraries have joined hands with the Govt. and research partners in India and China. It is a free-to-read access to the books on the web. More than million books have been made accessible from the following web site.
   http://www.ulib.org

3. A site specifically designed for K-12 students and educators. It offers teachers an easy-to-use      guide to employing the Library of Congress online resources in the class room.
   The content of the digital collections is presented in an appropriate context lessons, curriculum guides, "how to" projects and other learning activities.

www.loc.gov/learn/

4.	A collection of finest literature. The audio versions of the books are also available.
http://publicliterature.org/

5.	The web site says,
**"We** have *hundreds* of classic books you can read right now, all absolutely free! It is an ideal way to expand your horizons, catch up on your reading list, or read books that it seems like everyone else has already read. Fix yourself a drink, get comfortable and *Start Reading!"*
http://www.pagebypagebooks.com/

6.	20,537 e books on varied collections, wonderful resource for research with formatting for PDA and iPods.
http://manybooks.net/

7.	World Wide School library has enormous amount of resources apt for K-12 schools on many subjects.
http://www.worldwideschool.org/library/catalogs/bysubject-top.html

8.	The Baldwin Project focuses on literature for children published before 1923. It has wealth of online material suitable for children with a guide for parents and educators.
http://www.mainlesson.com/main/displayfeature.php

9.	Text of all Jane Austen's novels.
http://www.pemberley.com/etext/

10.	This Website provides links to "Thousands of Full-Text Free Books." The titles are grouped together by title within an alphabetical index. From there you can browse to find your favorite book
http://www.fullbooks.com/

11.	The most comprehensive and well-researched anthology of all time comprises both the 50-volume "5-foot shelf of books" and the the 20-volume Shelf of Fiction. Together they cover every major literary figure, philosopher, religion, folklore and historical subject through the twentieth century.
http://www.bartleby.com/hc

12.	It is a project of the University of Maryland funded by the National Science Foundation and the Institute for Museum and Library Services. Launched in November 2002 features excellent children's world literature in very appealing and easy to navigate format. It is very good resource to create assignment for the whole school community. The Children's literature is in their original language and is searchable by

simple and advanced location search by continent; by age group, type of books, by language and many more features.

http://www.icdlbooks.org

13.     Founded by Michael Hart, the inventor of e books in 1971 is the oldest producer of free e books on the Internet. It is primarily a collection of literary works that are in public domain in the U.S. consists of light and heavy literature. You may also find books in additional languages in Chinese, Dutch, English, Finnish, French, German, and Spanish.

http://www.gutenberg.org

14.     The Web site Provides unlimited access free of charge to students, researchers and anyone intellectually curious, to books and information. It features tremendous collection of Reference, Verse, Fiction and Non-Fiction for Librarians to develop reading communities at school. http://www.bartleby.com

15.     There are 30'000 online English books in various formats free for personal and non-commercial use. In the listings, you can start reading a book by clicking on or selecting its title (or on the phrase that describes where it is, if you're looking at a detailed book description, or at a listing that has multiple links).

You can also select the ⓘicon at the start of a book listing to find out more about a particular book, find other books with the same author, title, or subject, or find out how to make a stable link to the detailed book description .http://digital.library.upenn.edu/books/

16.     Full text of 2100 e books consisting of Illustrated Classics,African-American, Native American, Women writers, Young readers, which may be browsed by Subject and Author. http://etext.lib.virginia.edu/ebooks/

17.     Online illustrated stories for young Readers.
http://www.beenleigss.qld.edu.au/requested_sites/storiesontheweb/storiesontheweb.html

18.     10 amusing and illustrated stories for young readers.
http://www.ipl.org/div/kidspace/storyhour/

19.     Pre-school thematic library of Audio books with fun activities.
http://www.storyplace.org/preschool/other.asp

20.     Elementary thematic library with fun filled activites.
http://www.storyplace.org/eel/other.asp

21.     Audio stories.
http://www.bbc.co.uk/cbeebies/tweenies/storytime/stories/index.shtml

22.    A collection of full 700 e-texts mostly of Literature, Philosophy, Science and Medicine. http://etext.library.adelaide.edu.au/meta/titles.html

23.    A treasure trove of literature.  http://gutenberg.net.au/

24.    Free online Literature consisting of 2000 classic texts. It holds Literature Book Notes, Author Biographies, Book Summaries and Reference Books. One can also read Classic Fiction, Drama, Poetry, Short Stories and contemporary articles and interviews. Find study guides to the most read books and help for teachers. http://www.bibliomania.com.

25.    A union catalog of Electronic books, Texts and documents. It provides links to more than 1,41000 full text digital books from 1800 commercial and non commercial publishers, universities and private sites. More than 100,000 of the e texts are free. http://www.digitalbookindex.org/about.htm

26.    Digitized History resources converted from project Gutenberg http://www.nalanda.nitc.ac.in/resources/english/etext-project/history/history.htm

27.    Wired for books web site offers a collection of Beatrix Potter's stories for children in real/audios in English, French, German and Japanese. The website is a literary festival to listen to the readings and lectures of noted authors.
      http://www.wiredforbooks.org/index2.htm

28.    National Science Digital Library targets to provide more Science and Mathematics enrichment into out-of school time using resources from the Exploratorium Digital Library.
      http://www.exploratorium.edu/educate/dl.html

29.    Full text books and journal articles on Science and related fields.
      http://www.sciencedirect.com

30.    Spanish Language and literature Resources
      http://www.cervantesvirtual.com/index.jsp

31.    Internet Public Library is an excellent tool to promote reading and researching for school          students. A
      Collection of literature is ideal for experimenting with students to read online through digital libraries. http://www.ipl.org


## 6. CONCLUSION

It started with Brian Hawkins and let it conclude with what Hawkins has said about the future libraries which has become a present.

"The library of the future will be less a place where information is kept than a portal through which students and faculty will access the vast information resources of the world."

What a vision it was!

But the challenge for us as schools librarians is to continue laying the foundations for this new environment, and still keep dreaming and striving for higher and yet higher visions.

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# Biographical Notes

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Dean of Libraries at G.D.Goenka World School, India has twenty years of working experience in various school libraries in India. She is a Graduate in Arts and a Post Graduate in Library and Information Sciences from India. She represents India to International Baccalaureate Asia Pacific and works passionately to implement Information Literacy across the curriculum. She has contributed 'Capacity Building Training Modules for School Librarians of India' (Information Literacy and E-Resources) to the National Educational Research and Training Institute of India. She has been awarded by Indian Library Association for developing 'Best School Library' in 2003. International Association of School Librarianship, Australia also awarded her Ken Haycock Leadership Development grant in 2005 at Hong Kong.

## *Statement of Originality*

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author alone and has not been published elsewhere. All information and ideas from others is referenced.

# The "We" feeling:
# Cross-border, cross-language, cross-culture co-operation amongst school librarians who work in Europe

Helen Boelens
School librarian and information specialist
Kalsbeek College
The Netherlands

*The objective of this paper to help promote a feeling of cross-border, cross-language, cross-culture co-operation amongst school librarians on a European level - a "We" feeling – a feeling of "togetherness". Research shows that school librarians throughout Europe are actively promoting the important work which they are doing, on a national level. By working together on a European level, they can more effectively promote school librarianship in the European Union. The paper also attempts to make colleagues throughout the world more aware of some very specific, European school library problems.*

*European Union, Library Co-operation, Library Promotion*

## Introduction

School librarians and information specialists play an important role in the implementation of interdisciplinary information literacy skills in schools throughout digital.

In Europe, school librarians are faced with some specific, very real European problems, for example the diversity of the different national school systems, differences in national (and provincial) legislation related to education, and the large number of national and local languages which are spoken or written. Research evidence shows that school librarians and information specialists are actively promoting their important work at national level, however, cross-border, cross-language, cross-culture co-operation will make their work even more effective and will also help to promote public awareness of this work on a European level.

This paper will, among other things, discuss the recent development of European school library groups. Thanks to the availability of digital technology, these European groups can now communicate in a simple way and exchange information which makes their work more effective.

## Background information

This paper is based on the research carried out at the request of ENSIL (European Network for School Librarianship and Information Literacy). In April, 2003 a group of school librarians and advisors from 8 different countries within Europe formed the

ENSIL. Since its inception, ENSIL has become a much larger network, with approximately 65 members from 20 different countries in Europe. During ENSIL's inaugural meeting, the delegates expressed an interest in a study which Boelens was carrying out at the Kalsbeek College in Woerden, the Netherlands, which involved the implementation of an information literacy matrix throughout the entire school (2,600 pupils). At the Kalsbeek College, the school library and information centre is at the heart of the curriculum and is the place where the introduction of new enquiry based approaches and learning styles are embedded within the curriculum.. Boelens was asked to investigate whether or not a similar matrix could be implemented in secondary schools throughout Europe.

The original research regarding the application of an information literacy matrix on a European basis is described in Boelens' doctoral dissertation, which is expected to be published during 2008. This present paper describes some important conclusions which were reached after reviewing the results of the initial the study.

## Analysis and Field Work

The following actions have been taken in order to find data and also to verify opinions which were recorded in the literature and/or collected during expert interviews.

### Questionnaires and/or surveys

In April 2004, the first ENSIL survey was sent, in English, to 16 European school library associations. These addresses were provided by the European Network for School Libraries and Information Literacy (ENSIL) and by the International Association of School Librarianship (IASL).

In March 2005, because of a poor return of the original questionnaire, a second ENSIL survey, in English, was sent to National Libraries in 52 European countries, in order to verify addresses of School Library Associations and to ask for further information about school libraries in each specific country.

In August 2007 a third (short) ENSIL Survey was carried out. ENSIL members were asked to verify some conclusions which were reached from earlier ENSIL surveys.

### Expert interviews

Informal interviews were held during the first European Conference on School Libraries, in Wels, Austria, in April 2007. It became apparent that, in some countries, recent changes in school libraries and information centres have taken place. These changes were recorded. Academic experts in the field of information literacy and lifelong learning, from a number of different universities throughout the world were interviewed personally, and also via the internet, and asked for their opinion with regard to a number of hypotheses. Thanks to a combination of research strategies, insight has

been gained into the state of school librarianship in Europe, as a whole and also per country.

## Results from the research which are relevant to this paper

School libraries and information centres in some European countries are more advanced than others. Some schools have advanced facilities (including superior collections and ICT facilities). Other schools have a smaller budget.

The work carried out by the school library and information specialist not only comprises the traditional goals such as literacy, reading improvement, reading pleasure, searching for and finding information for projects and assignments, or the provision of a friendly place within the school where pupils can study. New goals of the school library and information centre (SLIC), made possible thanks to the introduction of ICT technology, are also very important. They include the stimulation of new forms of learning which now take place in the SLIC, such as learning to learn, individual learning, co-operative learning, enquiry learning and E-learning. Perhaps most important of all is the instruction in interdisciplinary information literacy and lifelong learning skills for both teachers, pupils and parents which takes place in the SLIC. Pupils, teachers and parents learn new skills which prepare them for their roles as citizens in the European society of the 21st century.

The school librarian and information specialist needs the support of colleagues throughout Europe who find themselves in a similar position. The SLICs may all be different but the goals are similar.

In some countries, the school librarian and information specialist is a qualified teacher and part of the teaching community, with the same benefits and salary. In other countries, this is not the case.

School librarians and information specialists often feel outnumbered. There is often only one school librarian in a large school community which has more than one hundred teachers. They have asked for support for their work.

Some countries have a strong national school library association, others do not.

The situation in the complex information society of the 21st century is constantly changing. There is a need for constant training and retraining of school librarians and information specialists.

On a national level, more and more school librarians and information specialists are now uniting and actively promoting the important work which they are doing. However cross-border, cross-language, cross-culture co-operation, using traditional and digital forms of communication, will make this work even more effective and will also help to promote public awareness of this work on a European level.

<center>Problems which are encountered in cross-border communication</center>

The following problems are encountered in cross-border communication.

*Language*

Language plays an important role in communication within Europe. It could be said that the working language of the EU is English. The surveys mentioned above was sent to 52 countries in Europe, including 27 members of the EU, 3 candidate members and 22 other European countries[1]. In these 52 countries, a total of 35 official and national languages are spoken and used. These figures indicate that communication between European school librarians and information specialists may be a problem

During the interviews mentioned above, school librarians were specifically asked if they were able to read English documents, books, papers and other information, and specifically information about developments in school librarianship. The answer was that many of them were unable to do so.

This language problem was also evident with regard to the completion of the English questionnaires (mentioned above). Very little information as been received from countries where French, Spanish and Russian is the official language. The informal interviews identified a problem regarding communication with some School Library Associations in Europe. Even though relatively strong School Library Associations exist in some countries, the questionnaire was not returned to the researcher. The reason for this was a lack of English language skills (or a lack of confidence in these skills) amongst the membership.

*School systems*

School systems in Europe differ from one country to the next. In some countries, a national educational policy does not exist. Each province has its own rules and regulations. This means that school systems throughout Europe are extremely diverse. A question which may seem relevant to one country, is completely irrelevant in another.

For example, there are definite differences regarding the legal age when a child may finish his or her education. Also, laws regarding the number of hours of education which a child should receive in one school year vary dramatically. In some poorer countries, children cannot attend school during harvest time – they are needed on the farms.

*Description of school library and information centre*

How can a school library be described and who should run this facility? In some cases, a school library and information centre consists of a number of boxes of books which are moved from one classroom to another. Other schools have advanced SLICs

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[1] http://www.nationsonline.org/oneworld/european_languages.htm . Accessed on 6 september 2007.

excellent, modern facilities and a professional school librarian and information specialist who runs this facility.

Some countries have school libraries in primary schools, but very few facilities in secondary schools.

When asked to complete questionnaires, school principals will provide information which indicates that their school library has modern ICT facilities, however, research indicates that, in many cases, these facilities are both limited and outdated.

This diversity makes the European situation more complex. Information about school systems in Europe can be found at Eurydice[2].

## Recent cross-border, cross-language, cross-culture co-operation amongst school librarians and information specialists in Europe

In April 2007, the first European conference on school libraries took place in Wels, Upper Austria. The topic of the conference, organised by the Library Service for Schools (*Bibliotheken-Service für Schulen*)[3]. was *"School Libraries as Places of Learning: no learning without reading"*. One hundred and thirty school librarians, information specialists and other educators travelled from 18 different countries in Europe to attend the meeting.

During the conference, delegates attended lectures and took part in important discussions which were related to the changes which are taking place in the work carried out by school information specialists since the introduction of ICT and new forms of learning into the schools. The delegates in Wels also discussed the need for new training programmes which would help school information specialists to carry out these new, important tasks.

## Important information about school libraries and organisations which promote school librarianship

Boelens has developed an English reference document, which is available in both traditional and digital form and which is specifically oriented towards school librarianship in Europe. Its purpose is to help promote a feeling of cross-border, cross-language, cross-culture co-operation amongst school librarians on a European level - a "We" feeling – a feeling of togetherness. National School Library Associations are invited to translate this document into their own national languages. It focuses on European school library problems and gives suggestions for places where advice can be found. The information can be used by public, government funded schools and their libraries, and also by private or international schools. It assists the reader to access important school library documents:

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[2] http://www.eurydice.org/portal/page/portal/Eurydice  Accessed on 24 January 2008.
[3] http://www.buchzeit.at   Accessed on 24 January 2008.

## The IFLA/UNESCO School Library Manifesto[4]

This document is now available in 24 European languages. This manifesto defines the mission and goals of the school library or resource centre and the profile of its staff.  It emphasises equal opportunities for all learners.  School librarians from many different countries throughout Europe can read it, become familiar with it, and use its contents to promote their work.

## The IFLA/UNESCO School Library Guidelines[5]

This document was first published in 2002, to help schools and school librarians to implement the principles expressed in the manifesto. These guidelines were produced to inform decision makers at national and local levels around the world, and to give support and guidance to the school library community.  Since their publication, the Guidelines have been translated into 12 European languages.

## IFLA School Library Advocacy Kit[6]

IFLA has also published the School Library Advocacy This document advocates strong school libraries using the IFLA/UNESCO School Library Manifesto and Guidelines and other resources.

## IFLA on-line newsletter[7]

Access to the on-line newsletter which is published by the IFLA section for school libraries and resource centres.

## International Association of School Librarianship (IASL)

In 1971, the International Association of School Librarianship (IASL) was founded. Since 1972, it has held a annual international conferences.  Papers have been presented by school librarians and academics from all parts of the world and workshops have been held.  These papers are available through the IASL web-site[8] .

The IASL also has a list-serv which allows school librarians from all over the world to communicate with each other.

The IASL Advocacy Kit[9] provides countries which do not have a National School Library Association with ideas and procedures for starting one.   It also contains a page entitled *"School libraries make a difference to student achievement",* which contains links to research reports and other documents that show that school libraries make a

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[4] http://www.ifla.org/VII/s11/pubs/schoolmanif.htm . Last update: 23 March 2007

[5] http://www.ifla.org/VII/s11/pubs/school-guidelines.htm . Last updated:  21 November 2007

[6] http://www.ifla.org/VII/s11/pubs/s11_AdvocacyKit.html  Last update: 28 July 2006

[7] http://www.ifla.org/VII/s11/news/school-newsletter45.pdf  Accessed on 24 January 2008.

[8] www.iasl-online.org.  Accessed on 24 January 2008.

[9] http://www.iasl-online.org/advocacy/getting-started.html.  Accessed on 24 January 2008.

difference to student achievement and that school libraries have a positive impact on student learning.

   *International School Library Day.*  Each November, the IASL celebrates International School Library Day. School libraries and other institutions send information about their School Library Day celebrations to the IASL web-page[11] from all over the world.  In 2007 itt contained information from many European schools.

## *European Network for School Libraries and Information Literacy (ENSIL)*

   As mentioned above in the background information, ENSIL was formed in 2003. In December 2007 it had 65 members from 20 countries in Europe.  Membership is free of charge.  The following statement was adopted by the delegates who were present at the first ENSIL meeting:

> Amsterdam Statement on School Libraries and Information Literacy.
>
> International research shows that the quality of students' learning outcomes is greatly enhanced by effective school libraries.  All learners in each country of Europe are entitled to quality school library/media centres and services.  In order to achieve this, each country in Europe, and the European Union, should adopt and implement the principles of the IFLA / UNESCO School Library Manifesto[4].  ENSIL invites other library and educational organisations throughout Europe to join and contribute to further discussion and action."

   ENSIL has a web-site which provides useful information about school libraries throughout Europe, in English and also in other European languages.  It also has a useful list-serv (language: English).

## Other important information

   Many national school library associations have their own communication tools – a web-site in their own official or national language, a list-serv, a web-page, brochures etc.

   There are many more organisations which provide useful information for European school librarians.  Below is a list of some of these organisations which may provide useful (usually English) information.

## *European Council of International Schools (ECIS)*

   ECIS is a collaborative network promoting the ideals and best practice of international education[10].  ECIS has a committee for Library and Information Services.

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[4] http://www.ifla.org/VII/s11/pubs/schoolmanif.htm .  Last update: 23 March 2007
[10] http://www.ecis.org/aboutus.asp .  Accessed on 22 January 2008.

On the web-page[11] for this committee, there is a useful list of Resources for Librarians & Information Specialists in International Schools[12].

### *School Library Association (SLA) based in the U.K.*

A small amount of the information on the SLA web-site[13] is written in different European languages.  The web-site is a good source of information and resources for school librarians, in Europe and world-wide.

### *American Association of School Librarians*

The web-site of this organisation[14] contains a wealth of information for school librarians (in the English language) not only in the USA but throughout the world. Among other things, this site contains excerpts from the internationally acclaimed book *Information Power: Building Partnerships for Learning* (1998). / American Library Association and Association for Educational Communications and Technology.  It also contains the new "Standards for the 21st-century learner" (2007).  These important documents support the work of the school library and information specialist.

### *Association of International Librarians & Information Specialists*

This association, with its own website[15], supports the work of different kinds of international librarians and information specialists.

### *School-libraries net*

This web page provides a list of web pages created by school librarians throughout the world, at public schools and also at private and international schools[16].


### Important European school library projects

Knowledge and expertise is made available to school librarians and information specialists through long term (European) projects.  A simple, unbiased selection of these European projects appears below:

### *"Rede de bibliotecas escolares"* [17]

The 10-year-old Spanish national project "<u>Rede de bibliotecas escolares</u>" (Save the school libraries);

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[11] http://www.ecis.org/committees/library.htm  Accessed on 22 January 2008
[12] http://158.64.118.6/wr/user/library/English/Info%20specialists/index.htm  Accessed on 22 January 2008
[13] http://www.sla.org.uk/ Accessed on 22 January 2008
[14] http://www.ala.org/ala/aasl/aaslindex.htm   Accessed on 22 January 2008.
[15] http://ailis.cern.ch/  Accessed on 22 January 2008.
[16] http://www.school-libraries.net  Accessed on 22 January 2008.
[17] http://www.rbe.min-edu.pt  Accessed pon 27 January 2008.

*The THEKA Project [18]*

The Portuguese Theka Project - the Calouste Gulbenkian Project for Teacher Education to Develop School Libraries - is a project based on co-operation between school libraries, public libraries, the Portuguese Library Association (BAD) and the Gulbenkian Foundation.

*The Biblioteche nelle Scuole ("Biblioscuole") Project [19]*

This Italian project connects schools and the library world, within a local context. It provides innovative services and grants access to information, thanks to the co-operation and services of the Italian National Library Service (SBN). This national pilot project, which is funded and supported by the Ministry of Education, University and Research, Direzione Generale Servizi Informativi (MIUR-DGSI) and Department of Technology and Innovation (DIT), in collaboration with National Centre for the Union Catalogue (ICCU) and the Ministry of Cultural Heritage (MiBAC), was launched in April 2004. The main aims of the project are:
- to provide a wider access to information;
- to enhance information literacy, and
- to promote reading.

The overall goal is to support lifelong learning, for a continuous cultural development and social inclusion.

*SLAM[20], GrandSLAM[21] and SLAMIT [22]*

SLAM was a European Community Socrates funded project, with partner schools in 4 European countries.

The GrandSLAM project, a follow-up to the SLAM project, had partner schools from 8 European countries.

SLAMIT uses the experience and outcomes of the SLAM and GrandSLAM projects and seeks to:
- promote the development of school libraries, to become full library and learning resource centres at the heart of the curriculum, and
- introduce new enquiry based approaches and learning styles embedded within the curriculum.

The SLAMIT project now seeks to extend the work of these two earlier successful projects.

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[18] www.theka.org   Accessed on 24 January 2008.
[19] www.biblioscuole.it  Accessed on 22 January 2008.
[20] http://www.karmoyped.no/slam/ Accessed on 22 January 2008
[21] http://www.gslam.net/ Accessed on 22 January 2008
[22] http://www.slamit.org/ Accessed on 22 January 2008

<center>The promotion of school librarianship throughout Europe</center>

School librarians and information specialists throughout Europe are urged to take the following actions.

*Publications in official or native languages*

School librarians are urged to ask their National Library Association or National School Library Association to contact the international organisations mentioned above and explain the language problem to them. International organisations are asked to make more information about school librarianship available in the official language of each country. These translated documents can then be distributed to school leaders, local and European politicians, so that they can become aware of the important work which school librarians are doing.

*School library law*

Some countries in Europe have a school library law. Others have a school library Bill which is waiting to be presented to the national parliament. A school library law is a law which states that every school should have a properly equipped school library and information centre, run by a professionally trained school librarian. These laws vary from country to country. There are also European countries which have no school library law at all. In some countries, school libraries and education fall under the jurisdiction of the provincial government. While one province or state may have excellent school libraries, others may have none at all. Some individual schools cannot afford to have a school library. It may be left to the principal to decide whether or not the school should have a school library, but in some cases there is just not enough funding to provide a high quality facility.

In countries where there is no school library legislation, the school library association or the national library association can raise this question with local or European politicians. There is sufficient information for this purpose in the IFLA School Library Advocacy Kit[6] or on the IASL Advocacy page to support this cause.

*European educational databases*

Information about the work of School Libraries and Information Centres in European educational databases. Although there are educational databases which are sponsored by the European Union (EU), they contain very little information about school libraries and their importance in advancing educational achievement in digital Europe. These databases often contain information about ICT technical facilities within the schools, but there is very little information about how (digital) content is administered and/or used by the pupils. Questionnaires sent to teachers may have asked "How often do you use a

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[6] http://www.ifla.org/VII/s11/pubs/s11_AdvocacyKit.html  Last update: 28 July 2006

computer in your lessons" of "How many PC's are available in your classroom?, but important, specific questions such as "How do pupils use ICT to gather information in your lessons?" or "Do they receive instruction in information literacy skills given by a trained person?" are seldom asked.

School librarians are urged to write to their local politicians and ask them to request that specific information about school libraries and information centres and the work of school librarians be included in European databases, per country.

*National survey of school libraries*

A national survey of school libraries, per country, can provide important information for school library advocacy and for research about the effectiveness of school libraries in Europe. On-line questionnaires can now be used for these surveys.

*Inaccurate information about school librarianship*

School librarians and information specialists are asked to check the data, per country, contained in databases, registers, guides, web-sites etc. This information is often inaccurate or has not been kept up to date. An E-mail or letter can be written with the request that these problems be rectified (via "Contact Us"). There are also links in or to important school library web-sites which do not work. Advise the webmaster of these problems.

## Misconceptions

Some countries take the stand that schools can be serviced by the public library and that school libraries are not necessary. The research indicates that school librarianship is a specific task within the school and needs to be carried out by a person who is specifically trained to do this work.

School leaders sometimes think that "Pupils can find everything they need via Internet". New, current research proves that this is a serious misconception.

## Useful tools

Web 2.0 has provided school librarians with useful tools which make communication easier. Many school library associations have List-Servs or Blogs, in their own national language. School librarians can use this technology to find out what other colleagues are doing and sometimes ask for help or make suggestions.

## Recent developments

Very recently, a number of European colleagues have joined forces to make an application to the European Union for a training programme for school librarians and information specialists. Research has shown that, because of the increasing complexity of the use of ICT in schools, there is an urgent need for trained school librarians and information specialists. Nevertheless very few countries in Europe are still training an adequate number of school librarians, with a teaching accreditation, who will be able to carry out this work. At this point it is not known if funding will be granted.

Research is beginning to show that those countries which have a School Library Law are also still training qualified school librarians and information specialists, with a teaching accreditation. These countries recognise the need for the work of a qualified school librarian and information specialist within the schools.

## Conclusions

The indications are that school librarians from all over Europe, from different cultures and different backgrounds, are joining together to help and support each other in their endeavours. It is to be hoped that this paper will give them encouragement and will provide them with important resources for this purpose.

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3. http://www.buchzeit.at  Accessed on 24 January 2008.
4. http://www.ifla.org/VII/s11/pubs/schoolmanif.htm . Last update: 23 March 2007
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11. http://www.ecis.org/committees/library.htm  Accessed on 22 January 2008
12. http://158.64.118.6/wr/user/library/English/Info%20specialists/index.htm  Accessed on 22 January 2008
13. http://www.sla.org.uk/ Accessed on 22 January 2008
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*Biographical note*

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## Statement of Originality

This statement certifies that the following paper is based on original research undertaken by the author and that the paper was conceived and written by the author alone.  All information and ideas from other is referenced.

Helen Boelens
15 May 2008

# The Independent Learning Centre - Teaching our students to love again…learning that is.

Patricia Carmichael
Teacher librarian
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*The teaching and learning undertaken in the Independent Learning Centre (ILC) as an integral part of the school library, offers unlimited opportunities to students as part of the secondary curriculum that reflects the change in pedagogy of the 21st century. This has resulted in a paradigm shift to a truly student centred approach to education. The pedagogy of the ILC supports the Standards for the 21$^{st}$ - Century Learner as recently released by the American Association of School Librarians (2007). Of special interest from this set of standards is the fourth area concerning individual interest: How learners use skills, resources and tools to pursue personal and aesthetic growth. It is in this area of student personal interest that the success of the ILC program rests and how the inter-connection with the library has improved the whole school use and understanding of the importance of Information Literacy skills which are a vital component of the ILC program.  This includes both teachers and students. This paper discusses how the ILC program motivates and manages student interest and can be adapted to provide a model to teach how learners use skills, resources and tools to pursue personal and aesthetic growth.*

*Keywords: Interest, Independent Learning, School Library*

 'When working well, it is like a hive of busy-ness … the noise is that of people with a common goal to learn – to produce – a great atmosphere!' (Hellen Weber, Head of Science ILC coach)

## The school library and the teacher librarian's role in the student centred curriculum.

Teacher librarians are constantly defending their right to exist. The main goal of research in the field of school libraries and the role of the teacher librarian is to prove that

both of these - a well resourced school library and a dynamic, technology-literate teacher librarian - are necessary and invaluable for student academic success. There is no denying this fact and the International Association of School Librarianship site contains extensive information to support this (http://www.iasl-online.org/advocacy/make-a-difference.html).

But perhaps a two pronged approach is needed to revitalize the whole culture of learning in school libraries: one that addresses the need for school libraries to enhance student achievement, (which is well underway) and one that addresses a much more important issue concerning the 21st century learner: to cultivate curiosity and nurture a love of learning. The school library and the role of the teacher librarian must show that they can play a direct role in a child's learning-life in school and make a difference for the future. As stated by an Independent Learning Centre coach, "The students involved in the ILC program are motivated to learn about something important to them and consequently have developed self-guided learning skills that will form a solid foundation for life long learning." That is, teacher librarians need to teach and encourage our students to love learning, to be interested in the incredible world around them, and in the words of Kipling (1902) encourage our children to be "full of 'satiable curiosity". It is a privileged position, as one ILC coach responded, when asked, "What advice would you give to teachers who plan to teach in the ILC?"

"Enjoy the journey. Try to inspire and direct. Don't limit students by imposing your expected outcomes."

This is the pan-curricular role of the teacher librarian, to inspire and direct. The establishment of an independent learning centre as an integral function of a school library places the teacher and the student at the centre of teaching and learning in the school and much can be accomplished to encourage students to be interested in the world in which they live and return to interests which have been buried under the mounting assessment tasks prescribed by the curriculum. Unfortunately many students have their "'satiable curiosity" not only buried, but well and truly laid to rest as they struggle up Mt Assessment. It could also be contested that the longer students are involved in learning in schools the less likely they are to be interested in learning. There is a wide chasm of difference between the excitement, anticipation and "'satiable curiosity" of a Year 7 student who is about to engage in a new research assignment and that of a Year 10 student. In this cause, of teaching our students to love learning, the pedagogy of Standards for the 21st Century Learner and the pedagogy of Independent Learning Centre (ILC) seem to be allies. It is the fourth standard, that of teaching our students how to use skills, resources and tools to pursue personal and aesthetic growth which is of interest in this paper.

The qualitative and quantitative data presented in this paper are taken from previous studies (Carmichael, 2007, 2008) and responses from ILC coaches presently teaching in the ILC.

**The development of the Independent Learning Centre Project – a centralised learning space.**

*Background to the ILCP - supporting the vision and mission of the College*

A full school community audit was undertaken at Concordia Lutheran College in 2004 which revealed parents, teachers and students felt that the school produced independent learners. It was this positive outcome that prompted the Administration to investigate how independent learning could be developed further through the school's curriculum structure. As a result of this, the initial purpose of the Independent Learning Centre Project (ILCP) was to facilitate flexible, autonomous independent learning and to encourage and teach our students, both junior and senior, how to become confident independent learners. This concept was guided and directed by the vision and mission of the College for each child which is as follows:

> *At Concordia each individual is valued ... we seek to develop the whole person ... through a broad range of educational opportunities and unique learning environments. Our vision is that students would become life-long learners and proactive citizens of the global community, utilizing their God-given talents for the benefit of others ...*
> *We encourage students to become:*
> - *Self-directed and insightful*
> - *Discerning and resourceful*
> - *Adaptive and creative*
> - *Open and responsive*
> - *Principled and resilient*
> - *Confident and caring*

Since its inception in 2005, the pedagogical practice of the ILC has resulted in a paradigm shift to a truly student centred approach to education that promotes life-long learning. The establishment of the ILC is a natural extension of the Library. The new learning space which is the ILC provides a 'unique learning environment' and has created a physical focus for personalized teaching and learning within the College. This supports the College's vision and purpose for 'each student' as outlined above in terms of providing a, 'broad range of educational opportunities and unique learning environments'. As well as developing the pedagogy that supports the 'vision that students would become life-long learners'.

The development of the Independent Learning Centre Project (ILCP) was directed by the teacher librarian as Independent Learning Centre Manager and involved an enthusiastic and dedicated core of curriculum specialists who drove the project by studying the skills and strategies necessary to produce independent learners (Hiemstra & Sisco, 1990; Knowles, 1975; Long, 2007; Oxford Centre for Staff & Learning Development, 2007; Paris & Paris, 2001; Paris & Winograd, 1990; Savoie & Hughes, 1994). From this research the following principles were developed further to build a scaffold for the teaching and learning of independent skills and strategies. This scaffold is called the Negotiated Independent Learning Unit and all students in the junior school must cover at least one NILU in the course of their studies in the junior curriculum. Independent learning becomes a subject area without

content. It is the skills, strategies and processes of information literacy and independent learning that are taught.

Students should be able to:

- set their own learning aims;

- make choices over learning modes;

- plan and organise work;

- decide when best to work alone, collaboratively and when to seek advice;

- learn through experience;

- identify and solve problems;

- think creatively;

- effectively communicate both orally and in writing; and,

- assess their own progress in respect of their aims.

### *Collaboration is the key to curriculum change: Benefits for the teacher librarian and school library*

These principles provided a firm foundation on which to build the pedagogy of the ILC program of teaching and learning. The amalgamation of the library, the ILC and Learner Support serves as a physical focus for a centralized learning space within the school and this has increased the numbers of students and teachers who visit the library. For the school library, it presents an innovative curriculum design and a way to renew the image of the library as the centre of learning for the school. This is especially important in the face of the "Google coup". For the teacher librarian, this concept and resulting facility offers an exciting and refreshing way to engage all staff in the appreciation of the inclusion of information literacy skills and independent learning skills in their teaching areas, but from an entirely different angle. In fact it is from an entirely appropriate angle and is in keeping with the College's vision for each child. The teacher librarian's role in this venture is as Independent Learning Centre Manager and teacher, directing the teaching and learning in the facility. It is a leadership role, but successful leadership is a result of positive collaborative enterprise.

The success of the ILC program rests on the back of all teaching staff. This program and the resulting facility, forces the sharing of responsibility, so the support of the Principal, Administration, Heads of Departments the teacher librarian and a team of ILC coaches ensures that independent learning skills and information literacy skills are a major school focus. By establishing the library, the ILC and the Learner Support facility in one central area and by involving the teaching staff in the teaching and learning in the ILC, both teachers and students are exposed to the workings of the school library every day and searching for information in the school library becomes common place.

Since 2005 each one of the following teaching staff has taken on the mantle of an ILC coach. This means that each one of these teachers has taught the ILC program and has been exposed to teaching information literacy skills out of their curriculum area.

- Drama teacher and the Head of Curriculum

- Head of the English Department

- Head of the Science Department

- Head of the Mathematics Department

- Head of Physical Education

- Legal Studies teacher and the Head of Information Technology

- Head of LOTE (Languages other than English)

- Music teacher;

- Two Manual Arts teachers

- Graphics teacher

- Business and Information Technology teacher

- English and Art teacher, a Teacher Librarian

- Science and Mathematics teacher

- Legal Studies and Geography teacher

- Home Economics and Hospitality teacher

The Negotiated Independent Learning Unit is an elective that students in both the junior and senior school choose as part of the negotiated unitised curriculum. It is an assessed subject and the student's progress is included in formal reporting procedure to parents as any other subject. Teachers are timetabled on each line of the curriculum to teach in the ILC and it is approached as any other teaching and learning subject. At any time, teaching and learning maybe in progress in the library, in the ILC and in Learner Support. There is a flow and buzz as students and teachers move and work together in the whole facility to access resources, use technology, discuss ideas and learn collaboratively yet learn independently. Surprisingly there is no chaos, only collaboration and a sharing of learning. But the shift to this concept and the resulting facility does not happen overnight. To sustain this paradigm shift requires on-going professional development for all staff and regular evaluative research. Students also must be taught how to behave and respond to the new learning environment. Research in this area has led to a whole new understanding of student perceptions and responses to the traditional classroom, post ILC (Carmichael 2008). Students and teachers gain so much from this teaching and learning experience.

When asked what knowledge had been transferred into their own subject areas, teacher comments included: "a greater use of library resources in Legal Studies", "I have learned more about learning styles which has helped me plan lessons", "my subjects now

model these strategies to support this process (of research)", "I have a better understanding of effective research and assignment teaching strategies."

The teaching and learning in the ILC has been a two way exchange of ideas and knowledge by teachers and students. The benefits are obvious for the whole school teaching and learning program. Collaboration and enthusiasm resulted in:

•        The establishment of policy and management procedures for staff and students who undertake autonomous learning at the College. This involved both senior and junior students.

•        The development of pedagogical framework for Negotiated Independent Learning Units (NILU).

•        The establishment and ongoing development of an Independent Flexible Learning Program. This accommodates all students in the school.

•        The establishment of an ILC student database which tracks and records student results (Carmichael, 2007).

## Cultivating individual interest, motivation and independent learning – freedom from the constraints of the curriculum.

The teacher librarian still supports each Key Learning Area (KLA) in the curriculum in regards to co-operatively teaching information literacy skills in the library, but the pedagogy of the ILC program frees both the student and the teacher or teacher librarian from the constraints of the curriculum. Instead the student and their personal interests become the focus for the teaching and learning that takes place and the relationship with the student takes on a completely new focus. An interesting positive outcome of the ILC program has been that the relationships between students and teachers are enhanced in such an environment because the teacher is no longer the centre of the teaching process; instead the teacher supports, encourages and guides the student to achieve their goals. Teaching staff involved in the ILC program provided feedback to support this positive outcome regarding relationships between teachers and students. One teacher comments: "the time spent with each student enhances trust and respect for one another building constructive relationships".  As well as this, the teacher librarian also learns much about the interests of the students and can consider these interests when stocking the library. This builds further positive relationships with the students.

Schiefele (1991, p.299) defines individual interest as "a content-specific motivational characteristic composed of intrinsic feeling-related and value-related valences". It is this definition that most closely describes the term "interest" in the context of the ILC program. The student's personal interest becomes the motivating factor in the teaching and learning process. In this sense the common beliefs of the Standards for the 21st-Century Learner and the pedagogy of the ILC become one in the quest to teach learners how to use skills, resources and tools to pursue personal and aesthetic growth. In this way teacher librarians are instrumental in developing independent learners and further to this, "Interest should be thought of not only as an independent factor in the process of learning, but also a desired outcome" (Schiefele, 1991). In other words, the process teaches students that they can be interested in learning, that they can achieve and can enjoy learning and there is value in this

for their future. The following comment by a teacher supports this, "Students achieve success through individual research and teacher guidance on a topic which is of interest to them. Synthesis of research data prepares students for senior and tertiary study requirements." But more than this the ILC program builds and restores confidence in learners in their own efforts to achieve. One student stated,

> "I believe this was a great unit as I was working independently at my own pace. I was so happy at the end when I presented my assignment. I had a great feeling of self satisfaction."

The idea of individual interest being a motivating factor is not a new one and there are many studies related to the importance of interest and motivation in the learning process (Ainley, 2006; Alexander, 2003; Dewey, 1913; Hidi & Harackiewicz, 2000; Hunter & Csikszentmihalyi, 2003; Krapp, 2007; Paris & Paris, 2001; Pintrich & De Groot, 1990; Schiefele, 1991). These writings relate the importance and necessity of the interrelatedness of interest and motivation in the learning process. An important comment by a student sums up these feelings: "working in the ILC was a good experience. I think it is important for everyone to choose something that they enjoy because it helps you do well because you are interested in it".

The Self-determination theory, outlined in Deci, Vallerand, Pelletier, and Ryan (1991) follows this precept. Their study shows that when a student's "natural curiosity" (the intrinsic motivation for learning) is supported by teachers and parents in an autonomy-supportive way, that is by "offering choice, minimizing controls, acknowledging feelings and making available information that is needed for decision making and for performing the target task…." then…. "it has become more apparent that self-determination, in the forms of intrinsic motivation and autonomous internalisation, leads to the types of outcomes that are beneficial to both individuals and to society" (Deci et al., 1991, p.342) This also is the goal of the Standards for the 21st Century Learner. We are educating our students for their place in society, and this in turn, will dictate the kind of society we live in.

### The benefits of cultivating individual interest

Hunter and Csikszentmihalyi (2003, p.28) state that "school for most young people is a dull and uninspiring place to be in". Their studies show that motivating and managing student interest is a vital factor for cognitive growth. Their study contends that "chronically interested adolescents" that is adolescents who are interested in their world around them "have positive feelings of self esteem, are more likely to believe they originate their actions, feel more hopeful about their future" (Hunter & Csikszentmihalyi, 2003 p.33) and are more likely to believe they could make a positive contribution to society. The inverse follows that "chronically bored adolescents'" contribution to society may not be a positive one. "If interest provides the foundation for building skills that can be converted into enjoyable activity, boredom may be the results of the inability to cultivate such talents" (Hunter & Csikszentmihalyi, 2003 p.29). The cultivation of curiosity and interest, in children, for their own pleasure and enjoyment and for their place in the world around them, is a vital factor not just for each student's well being but may also play a part in the future of society. As Larson (2000, p.171) observes, "a generation of bored and challenge-avoidant young adults is not going to be prepared to deal with the mounting complexity of life and take on the emerging challenges of the 21st century".

The benefits of including individual interest in the learning process cannot be denied. Aspects such as "interest mediates the relationship between person and the world…provide motivation for developing skills and abilities…provides concentrative staying power in the face of difficulty…cultivates an internal milieu that optimises the acquisition of information…The cognitive boons of interest and its motivational power are also complemented by the fact that interest feels good" (Hunter & Csikszentmihalyi 2003, p.28) prove that individual interest and its positive powers are necessary in the learning process. It is the catalyst in the process of regenerating a love of learning.

When asked whether the ILC program had made any difference to student learning, teacher responses included: "I think it is very empowering for the students especially the ones who feel frustrated by the routines and constraints of routine day to day lessons", "it has offered choice: catered for different learning styles", "it has fostered student-teacher relationships and confidence in research tasks", "students now make use of structured research notes" and "there is now an increased awareness of resources available."

The quality of the learning experience is just as important (if not more) than the outcome in terms of academic achievement and is in many cases responsible for the outcome in achievement (Schiefele 1991, p.313). By removing the focus for learning as the measure of achievement and instead replacing this focus with a student's individual interest, it is more likely to result in a positive learning experience for the student. It is hard for a student to say she is bored with the topic or it has no relevance in her life when it is her area of personal interest and choice. The student's personal interest becomes the motivating factor in the ILC program.

There are of course, many other factors that come into play for each student, but generally the disinterested and disengaged student is far more difficult to motivate than the interested student, for obvious reasons. Martin (2003, p10) presents a simple but fairly accurate indication of student motivation categories shown in Table 1. Although it presents a general view it does have merit in that the chronically interested are easy to identify as are the chronically bored in any classroom situation. These characteristics are recognizable as accountable for the success or failure to achieve in any learning situation. But if the student has choice of the content and subject matter; the outcome and the mode of presentation and the ultimate goal of the learning project, then it is far more difficult for the Failure Avoider and Failure Accepter to engage in learned characteristics.

**Table 1: student motivation categories**

| MOTIVATION CATEGORY | CHARACTERISTICS |
|---|---|
| Success Striver | <ul><li>High self-esteem</li><li>Confident</li><li>Succeeds by focusing on success</li><li>Not overcome by setbacks</li><li>Enjoys challenge</li><li>Enjoys hard work</li></ul> |
| Failure Avoider | <ul><li>High self-doubt</li><li>Anxious</li><li>Can succeed, but mainly to avoid failure</li><li>Can be overcome by setbacks</li><li>Is frightened of challenge</li></ul> |

|  | ▪ Does not enjoy hard work |
|---|---|
| Failure Accepter | ▪ Low self-esteem<br>▪ Uninterested and disengaged<br>▪ Pessimistic<br>▪ Accepts failure<br>▪ Accepts setbacks<br>▪ Does not accept challenges<br>▪ Does not try |

**The Independent Learning Centre Program provides a model for Standards for the 21st Century Learner.**

It may well be that the ILC program can provide a pedagogical model for the Standards for the 21st-Century Learner (hereafter termed the Standards). The NILU can be adapted to teach learners how to use skills, resources and tools to pursue personal and aesthetic growth and to cultivate curiosity in our students both in the school and for the future self-worth of our students.

The definition of "personal and aesthetic growth", as exemplified through Sections 4.1 to 4.4 of the Standards, compares very closely if not exactly to the definition of individual interest as "a content-specific motivational characteristic composed of intrinsic feeling-related and value-related valences" (Schiefele 1991, p.299). This can also be said of the definition of individual interest in regards to the ILC program.

Table 2, below, compares how Sections 4.1 to 4.4 of the Standards can be interpreted and compared to the scaffolding of the NILU. This provides a model for classroom application of the Standards.

**Table 2: Standards for the 21st Century Learner and independent learning**

| STANDARDS Section | INDEPENDENT LEARNING CENTRE PROGRAM (ILCP) NEGOTIATED INDEPENDENT LEARNING UNIT (NILU) |
|---|---|
| 4.1 Skills<br>4.2 Dispositions in Action<br>4.3 Responsibilities<br>4.4 Self-Assessment Strategies | *How learners use the ILCP to engage in student centred learning*<br>*The Negotiated Independent Learning Unit (NILU)*<br>▪ Students follow the generic scaffolding of the NILU in a research journal which also is the learning contract<br>▪ Students are taught independent learning and information literacy skills and strategies that will help them in future studies<br>▪ Students gain knowledge about their personal learning style/s<br>▪ Students gain knowledge about themselves as a learner<br>▪ Students undertake personal research<br>▪ Students are responsible and accountable for their own learning<br>▪ Students engage in metacognitive strategies |
| 4.1.1<br>Read View and listen for pleasure and personal growth.<br>4.1.4<br>Seek information for personal learning in a variety of formats and genres.<br>4.2.1<br>Display curiosity by pursuing interests through multiple resources.<br>4.4.1<br>Identify own areas of interest.<br>4.4.3<br>Recognize how to focus efforts in personal learning. | *Students should be able to set their own learning aims*<br>All students negotiate their own Negotiated Independent Learning Unit. It takes the form of a contract. They formulate their own goals. They organize their own learning journey in the given time scale to attain their goals. They choose their own topics for research. They think about their interests, read and research their interests as well as brainstorming with others to help decide on an area of personal research. Students explore a wide variety of modes of presentation, visual, read/write/, kinaesthetic.<br><br>*Recognise and consider personal learning style*<br>*Make choices over learning modes*<br>Our students complete the 'VARK: A Guide to Learning Styles' questionnaire (Fleming & Bonwell, 2006). This is completed and submitted on-line. Students explore what learning preferences they may have. Students are encouraged to use the subsequent results and recommendations to frame their research and outcomes and further study. They use this information about themselves to focus on all aspects of their personal learning. |

| | |
|---|---|
| 4.1.2<br>Read widely and fluently to make connections with self, the world, and previous reading.<br><br>4.1.4<br>4.1.5<br>Connect ideas to own interests and previous knowledge and experience.<br>4.1.6<br>Organize personal knowledge in a way that can be called upon easily.<br>4.4.1<br>4.4.2<br>Recognize the limits of own personal knowledge.<br>4.4.3 | *Recognise, contemplate and rank individual interest*<br><br>*Learn through experience*<br>　　Students build upon the knowledge they already have about a particular area of interest and develop this interest into a research project. This prior knowledge is useful when deciding and developing the hypothesis or challenge. The most successful research projects involve authentic inquiry topics and engage relevant "others" in the process.<br>　　NILU research journal offers scaffolding and graphic organisers<br>　　KND tables ( what you know, need to know, don't know about the topic)<br>　　'Inspirations' software concept mapping<br>　　All information is recorded in a research log book and journal. Information is collected and stored either electronically or written in a journal. |
| 4.1.3<br>Respond to literature and creative expressions of ideas in various formats and genres.<br>4.1.4<br>4.1.6<br>4.2.2<br>Demonstrate motivation by seeking information to answer personal questions and interests, trying a variety of formats and genres, and displaying a willingness to go beyond academic requirements.<br>4.4.2<br>4.4.3 | *Tune-in*<br>　　Students engage in initial research to connect with their topic and gain an understanding of the breadth and depth of information available. Questions posed refer to attainability of challenge and suitability of topic.<br>*Plan and organise work*<br>　　Students state in their contracts the goals they have set for themselves, defining their research topic posed as a problem or challenge. This challenge must be attainable for the student, taking into account the abilities of the student. The 'Inspirations' program is modelled to aid concept mapping of ideas and so dictate their research pathways. Note taking strategies and how to select appropriate information is taught. This is recorded in a research journal. Students consider the final outcome in respect of their topic, their personal learning preferences and their goals. The idea of new learning is promoted as is the concept of accepting a personal challenge. |
| 4.1.7<br>Use social networks and research tools to gather and share information.<br>4.2.2<br>4.3.1<br>Participate in the social exchange of ideas, both electronically and in person.<br>4.4.3 | *Decide when best to work alone, collaboratively and when to seek advice*<br>　　Students brainstorm with other students, staff and parents to explore ideas for their research. They may also tap into community groups, interest groups to seek advice and ideas. They follow the scaffolding for planning and designing their research topic with help if they feel they need help. Confusing issues are clarified at the outset. Attainable challenges are discussed and developed. Teachers must be prepared to be part of the journey. |
| 4.1.8<br>Use creative and artistic formats to express personal learning.<br>4.2.3<br>Maintain openness to new ideas by considering | *Think creatively*<br>　　Students brainstorm with other students in the ILC and the teacher. They consider their Learning Styles to frame and design their outcome in terms of presentation. They consider all genres of presentation mode, written, visual, electronic, film and so on. |

| | |
|---|---|
| divergent opinions, changing opinions or conclusions when evidence supports the change and seeking information about new ideas encountered through academic or personal experiences. | |
| 4.1.3<br>4.1.5<br>4.2.1<br>4.3.2<br>Recognize that resources are created for a variety of purposes<br>4.3.4<br>Practise safe and ethical behaviours in personal electronic communication and interaction.<br>4.4.4<br>Interpret new information based on cultural and social context. | *Identify and solve problems by research*<br>　　Level of synthesis of student research and gathered information relies to some extent on the challenge the students set for themselves in regards to their goals and initial hypothesis. This should be attainable through their research. As students gather more information, their ideas may change and their hypothesis may need further development or change focus. This is a cyclic development in the research process and indicates the student is critically adapting and synthesising new information. The thinking process is in exercise mode. Information is gathered and recorded. Bibliographic data is recorded in Citation 4 a bibliographic program suitable for secondary school students. |
| 4.2.3<br>4.3.1<br>4.4.3<br>4.4.5<br>Develop personal criteria for gauging how effectively own ideas are expressed.<br>4.4.6<br>Evaluate own ability to select resources that are engaging and appropriate for personal interests and needs. | *Effectively communicate both orally and in writing*<br>　　Assessment of the NILU is measured in many different ways to make sure the students are able to articulate their progress and present their research topic. All students must present a Power Point presentation to the class outlining their progress at mid semester. They must outline their goals and what they have done to reach those goals. The audience is asked to question the student on their progress and clarify any confusing aspect of their research. Metacognitive processes are continually encountered by the student to guide their thought processes and future directions. |
| 4.4.5<br>4.4.6 | *Assess their own progress in respect of their aims*<br>　　Daily Logbooks record the work completed each lesson. They can see their journey lesson by lesson. Students must be constantly aware of their goals. All students engage in self evaluation processes which include, progress reports presented to the class, self evaluation questionnaires and discussions with the teacher. At the final presentation students must assess their journey and state whether they have in fact achieved what they set out to do. It becomes an important event. |

The ILC program as outlined above has a generic application and could be applied across all four AASL Standards. The effectiveness of the program allows for all ability levels, learning styles and personal interests of the student to be a formulating structure for personal learning and can be adapted for both secondary and primary education settings.

## Students respond

When students were asked to consider an individual interest for investigation many ideas were considered. Some students chose an area of interest that they enjoyed, for no other reason than that of it giving the student personal pleasure. Some chose an area of interest in

the sense of social awareness, for example the global warming crisis or the AIDS epidemic. Some chose an area of personal challenge, the quest of creating an artistic or literary work or perhaps building or designing an eco- sustainable house or designing a personalized surf board. For example:

"I have always wanted to make a short film or a video clip."

"It has been a personal ambition of mine to make a guitar."

And some chose an interest that the student felt was useful for the future in terms of skill building or occupation, for example, "I want to find out about feline diseases because I want to be a vet and specialize in cats".

Many of the students indicated that it was a combination of the above. Fortunately their topics indicated that our students are socially aware and creative and the majority did have some personal interest. The chronically bored students were much more difficult to engage in terms of motivation and interest because many of them claimed they had no interests. Combine this fact with low ability in academic endeavours and a lack of creativity, which seems to be common in these students (Hunter & Csikszentmihalyi, 2003) and a NILU becomes hard work. But that is the role of every teacher, to strive to teach our students that they can achieve.

One teacher commented: "it's full-on work…it is a continual movement of the teacher around the room, checking work and progress". Another remarked: "be prepared to think creatively…be the ideas person". Reluctant students need much reassurance from both teachers and their peers that their ideas are of value and worth. They need support from a number of different 'significant others'. This is an example of where a teaching team can guide the reluctant student to an encouraging start to his or her research.

The majority of students were able to consider their interests and find a suitable topic to research. As another teacher noted: "My involvement in the ILC as a teacher has shown me that students are capable of creativity and self-directed engagement beyond what is normally possible in the 'traditional' classroom context". For the majority this was very true. Their topics and their final presentations and products were truly inspirational. In this case it is the students who inspire the teacher. This is a wonderful feeling.

Students responded positively to the ILC program and both qualitative and quantitative results showed that on the whole students enjoyed themselves and gained skills and strategies for the future. One question, "Has the NILU been a waste of time?" resulted in fairly honest evaluation. As one student considered, "No, I don't think the NILU has been a waste of time because, I learnt more about cricket which was my topic and how to make a web site about cricket and how to make my own cricket bat. I got to do what I wanted to do".

This comment, from a usually low achieving, disinterested student was a positive outcome. It is very hard work to achieve positive results with chronically bored students and the ILC program has much promise in this area. By the time a disengaged, disinterested fourteen year old student reaches the ILC they have often had at least seven years of negative learning experiences in schools. One semester in the ILC is not going to result in miracles, but for at least one semester the student was engaged in something of interest and value to them personally, and has some positive results for their efforts. In 82% of cases it inspired self confidence and pride in their efforts. Most students enjoyed the freedom to manage their

own learning but found it required a lot of effort, as one student remarked: "Well, it was hard work because we could make our own timetable". And although students could see that it was important to have the power to organise and manage their own learning they could see that it took effort so some preferred a more teacher directed classroom: "I like having teachers tell me what to do." It is a much easier option.

On the whole though there seemed to some positive aspects for the students for a variety of reasons particular to each student. Student comments included:

"I enjoyed being able to present my research and my topic to the class."

"I have learnt that planning and managing my work and time is a good start to a good assignment."

"I have learnt a lot more about the history of Claymation and how it all works. I have improved in my filming and creating skills and research skills."

"The power to manage your own time and learning is important because when you go to UNI it will help with your organising and researching."

Surveys ($n$=77) administered at the completion of the NILU provided student feedback regarding their perceptions of knowledge and skill changes. Eighty three percent of these students felt that their research skills were now better, and of these, 73% indicated an improvement in their knowledge of school library resources; 36% indicated an improvement in their knowledge of the library catalogue; 21% an improvement in their use of databases; 73% in bibliographies; 75% in organization skills; 60% in time management skills. Further, 55% felt that the ILC had helped them in other subjects. Most of these felt that this was in the area of improved research skills although 54% of the entire group indicated that their time spent in the ILC had provided motivation to study, complete work on time (Carmichael 2007, 2008). This was supported by an online test, "TRAILS: Tool for Real-time Assessment of Information Literacy Skills" (Kent State University Libraries & Media Services, 2007), that found of 44 respondents: 81% recognized how to use information responsibly ethically and legally; 69% were able to identify potential sources of information; and, 68% knew how to develop, use and revise search strategies.

In the affective domain, a large proportion of students (82%) also indicated that they were proud of their achievements (also a bit hard to answer no to this, although some did and felt that they could have done better) and 70% indicated that they had enjoyed learning about how they learn. Three quarters of students indicated that they now had a better knowledge of the kind of learner that they were and indicated that they had used that knowledge to frame their independent learning unit with almost two thirds indicating that they had used this knowledge to help their study practice (Carmichael 2007).

## Teacher responses: positive learning outcomes for students

There has been a positive exchange of knowledge between students, teaching staff and ILC teaching staff to further shape the pedagogy, process and procedures for the benefit of our students. And so, the on-going development of the ILC is a collaborative project that will extend beyond the physical boundaries of the College in 2008. The ILC program will be offered to students on-line using the "Learning Activity Management System (LAMS)"

platform (http://www.lamsinternational.com/). Lutheran Education Queensland is supporting this project, as they supported the ILCP.

That teaching colleagues, members of the ILC teaching staff, can share their comments, regarding the extent to which the ILC project and pedagogical program had supported the focus of promoting positive learning outcomes in the school only further supports the project. They responded in terms of the following contexts:

*In the ILC*

"The process of deciding, implementing and demonstrating a significant piece of work builds student confidence and models project management skills. Students have a more flexible approach to their learning – taking ownership and learning to prioritise activities; have the opportunity to learn skills and develop knowledge not available through our curriculum and the ILC is vertically timetabled allowing students the opportunity to meet students from other year levels who might share similar interests."

*Across the curriculum*

"Skills learnt in the ILC for a particular topic of interest can be applied across all subject areas. By developing our students' ability to independently plan their study, they feel more in charge of their own progress and this has a positive effect across their subject choices."

"By providing a broad range of independent units, the ILC ensures that Concordia Lutheran College is offering students breadth, depth and flexibility to its students."

"The skills taught in the ILC are utilised in other subject areas."

*Teacher student relationships*

"The time spent with each student enhances trust and respect for one another building constructive relationships."

"The ILC is always supervised by a qualified staff member enabling teachers to work in a much smaller environment with students than is often available in a standard classroom setting so there is opportunity for tutoring, advice and mentoring of students on a one-to-one basis."

"Teachers looooove an independent learner so it's all good."

*Life long learning*

"Independence of thought and action is the definitive characteristic of an adult. ILC learners are well on the way to adulthood if they grasp the opportunity available to them."

*Future employment prospects*

"Time management, self-guided learning, self-motivation, project management, communication and record keeping skills gained or enhanced by the ILC program are an asset to the student's employability."

"By completing a Negotiated Independent Learning Unit, students have demonstrated their ability to work independently."

"Employees should display integrity in their relationships with employers.  They must be able to work unsupervised and productively to contribute to the success of the business. The ILC provides supervision to assist the student to develop the necessary integrity to achieve future goals."

### *The learner being central to the school and the work of the teacher*

"My involvement in the ILC as a teacher has shown me that students are capable of creativity and self-directed engagement beyond what is normally possible in the "traditional" classroom context."

Comments by teachers and students provided an insight to the strengths and weaknesses of the ILC program and so problems can be addressed to further enhance a positive learning experience for our students. To do this, an evaluation of "what went wrong" can prove more instructive than what went right, although it is nice to know you are doing something right. Here are some comments by teachers from their observations and student reflection:

"Immaturity level of some students is a problem, especially those who require more structure." Some students found it difficult to be responsible for their own learning and accountable for their own learning journey. Some are not conditioned to work by themselves and are dependent upon the teacher for much direction. Some could not see the future worth or value of the pedagogy.  Studies undertaken late in 2007 supported this (Carmichael 2008).

Persistence, discipline and the inability to sustain interest in their area of inquiry proved difficult for some, especially if they had not planned well at the outset. Students agreed with this comment. One student stated: "I think I would have worked harder if I had less time". But another student stated: "I enjoyed being able to do my own thing and do my assignment at my speed and not worry about rushing it". This self-direction and self-pacing was at the core of the project's design.

Some do not have the cognitive ability to learn independently. These students need much support, from the ILC coach and Learner Support staff and parents. It is not impossible, but requires a great deal of patience, persistence, inspiration, perspiration and prayer. For these students a semester is not long enough.

## Conclusion

'A school without students?  What the …?  We teachers would wither if we had no students to guide and educate.  Our aim is to have an ideal society.' (Frau Keen, Head of Languages ILC coach)

That the ILC program could provide a model for the classroom application of the Standards for the 21$^{st}$ - Century Learner and the remodelling of the school library as a shared learning space, opens the way for further development of this concept. There are limitless

opportunities here for teacher librarians. The positive outcomes of the NILU far outweighed the negative in terms of stimulating personal interest in learning and the acquisition of independent learning skills and information literacy skills. Student and teacher relationships were enhanced and the ILC provided a change from the traditional classroom situation, providing more autonomy for the pursuit of personal interests. Collaboration amongst teaching staff resulted in positive learning outcomes for our students. Even though teachers believed that they provided student autonomy and catered for different learning styles in the traditional classroom, some students were unable to make connections and or recognise this (Carmichael 2008). So there is room for further collaboration there. And although students found the student centred curriculum was much harder work than the traditional classroom situation, that students were able to realise this and their dependence on the teacher, provides all the more reason to offer this kind of instruction (Carmichael 2008). There is so much more to learn about this concept and how to use it to optimise the learning experiences of our students. Teachers also learn more about themselves as a classroom practitioner.

These realisations are not a bad thing. Life will not always present each day prepared by another person. Students will have to make decisions and accept challenges and find their own way in life, whatever their interests may be. It is far better that when our students pass through the school gate for the last time, and march up the next mountain of life, they are equipped with a satchel of independent learning tools, a lunch box full of self confidence and a pair of binoculars to see what the world has to offer them, and to seek out their place in it.

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## *Biographical Notes*

Patricia became a Teacher Librarian in 1980. She has taught a variety of subjects as a classroom teacher in both secondary and primary schools, in NSW and QLD, in both private and state schools in Australia. She has a Bachelor of Arts and a Graduate Diploma in Education and recently completed her Masters of Applied Science at Charles Sturt University. She was honoured to be the QLD nominee for the Australian Teacher Librarian of the Year Award 2006 and Patricia accepted an Excellence in Education Award 2006 from the Australian College of Educators (ACE) for the Independent Learning Centre Project on behalf of Concordia College (http://www.concordia.qld.edu.au/index.php/10). Patricia has presented papers at national and international level. Patricia can be contacted at pac@concordia.qld.edu.au

## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced

# Promoting the Use of School Libraries: Teaching Readers to Fish Instead of Fishing For Them

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*This paper describes an on-line synchronous learning model that aims to provide guidelines for teachers and students to conduct synchronous instruction and set up cyber schooling framework which takes the much-familiar traditional school structure as the basis and attempts to enhance it by the use of technology to overcome shortcomings of traditional education and study without time and space restriction. We host training courses for teachers about multimedia tools and how to set up an e-learning environment that will record their pedagogy and organize their training materials for distance learning.*

*Synchronous Learning, Asynchronous Learning, E-Learning*

## Introduction of synchronous learning model

Traditional distance education has been typically constrained by the limitations of time and location, making it difficult for instruction. According to the time component, the distance learning could be divided into asynchronous and synchronous learning. Asynchronous learning allows teachers and students to interact and participate and in the educational process at different time irrespective of their locations; Synchronous learning requires the teachers and students to interact at the same time through they may be dispersed geographically.

The most important advantages of synchronous learning have been found as follows:
1. Immediate feedback can be provided to the students so that they can straightway correct themselves or strengthen what they have learned. This is especially essential for activities such as group decision making, brain storming, and analysis.
2. More motivation and obligation to be present and participate which in turn would increase their involved in learning activities, hence resulting in a better learning experience.

*On-line synchronous live instruction mode*

In traditional instructional settings, teachers and students all meet physically in a classroom environment to respectively teach and learn. In such a scenario, it is easier to build the instructional context. However, it is not easy to achieve the resource sharing and reuse. For example, even the same teacher teaching the same course but in two different classes must repeat the same content twice. This unnecessarily increases the teachers' teaching load, possibly resulting in a reduction in teaching quality. On the other hand, in the on-line learning

environment, all of the teaching material can be digitized, including the lecture. Therefore, it is easier for teacher to share and reuse the digital teaching material.

1.  Editing of teaching material
    Teachers plan each course unit in accordance with whole course objective and adapted to the backgrounds and attributes of the learners. After finishing the planning, teachers edit the course material of each unit as the plan. The sources of the course materials include a large variety that contain the lectures recorded by teachers themselves or others, material from publishers(books, films, teaching manuals etc), CD-titles, teaching videos and movies, and the content available in the public domain on the Internet. This approach ensure the sharing and reuse of the teaching resources (see Figure 1).
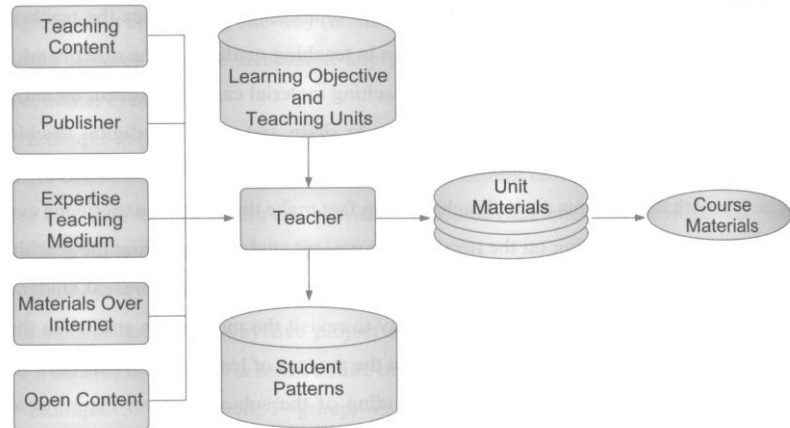
Figure 1 Teaching material  editing task

2.  On-line synchronous live instruction

During the on-line instruction task, the role of a teacher resembles to a Live DJ of a radio programme but in a teaching environment. Teachers can play a sequence of teaching material previously edited by them. Besides playing the teaching material, teachers can also give additional explanation of the content using annotation tools such as free-hand writing, drawing line, circle or rectangle, and so on. After a teaching segment finishes, teachers can either inquire students if they have any question, or assign a question and ask students to discuss that in the on-line chat room for a brief period of time and reply back. If students have any other queries, teachers c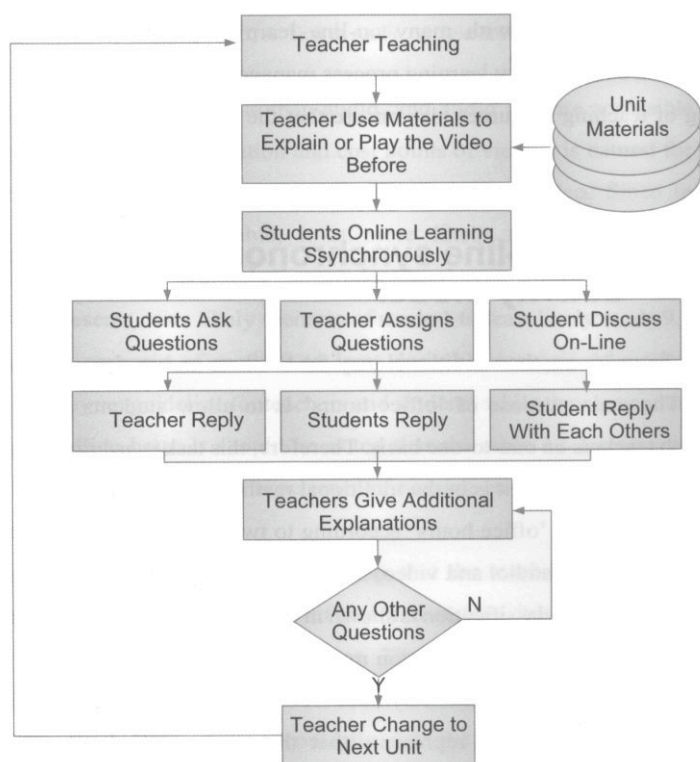an give another explanation or play other Once the queries are answered, the teachers can continue with playing next reaching materials on-line and undertaking other teaching tasks (see figure 2).

Figure 2 On-line synchronous live instruction task

# Introduction of cyber learning school

Cyber Learning School is an environment that includes hardware, software and pedagogy. It adds two new dimensions of mobility and situated learning to the traditional schooling concept, particularly when it utilizes information and communication technologies associated with distance learning.

There is a three-tiered layer of architecture in setting up and running a Cyber Learning School:

1. Hardware setup, where computer hardware and networking devices are put together to create system infrastructure.
2. Software setup, where e-learning system is installed by using appropriate software tools like HABOOK and WebCT.
3. Course setup, where online courses are designed and teachers and students undertake teaching and learning activities facilitated by e-learning system.

Cyber Learning School includes three elements: Cyber Learning Classroom, Cyber Teacher Desk, and Cyber Student Desk.

## *Cyber Learning Classroom*

The Cyber Learning Classroom has many distinct advantages over the computer rooms that typical traditional schools generally have. Traditional schools generally have one computer room where teachers can take their students for some computer related activities. Such computer rooms remain fixed and therefore cannot be used for situated learning. They require students and teachers to move to separate room hence leaving all resources that are in the classroom, such as reference books, demonstration material, and other teaching aids. Basically, traditional computer rooms separate reality from virtual, whereas Cyber Learning Classrooms merge them together.

Cyber Learning Classroom are constructed under Cyber Learning School. Teachers can provide different courses in different Cyber Learning Classrooms. The resources of these courses can be digitalized and stored in the Cyber Learning School. In the Cyber Learning Classroom, teachers can manage various activities such as student interaction, teaching resources, assignments, students' tests, and students' results. On the other hand, students can interact in online synchronous or asynchronous teaching, have online synchronous or asynchronous discussion with classmates, submit their assignment, take online tests, and engage in other learning activities.

## *Cyber Teacher Desk*

A Cyber Teacher Desk is generally constructed of a Tablet PC or notebook computer, combined with the ability of a wireless network connection and web camera.. With the help of teaching aid software, it also contains writing ability similar to that of a whiteboard, the function of immediate telecast, and of video recording. Besides, it provides teachers with no time and space restrictions, and also enriches teaching quality.

## *Cyber Student Desk*

The construction of the Cyber Student Desk is similar to the Cyber Teacher Desk. It can be constructed using a Tablet PC or a notebook computer. Besides, it includes the ability

of wireless internet, web camera, and the learning aid software that includes functions such as electronic note-making, a dictionary, and a calculator.
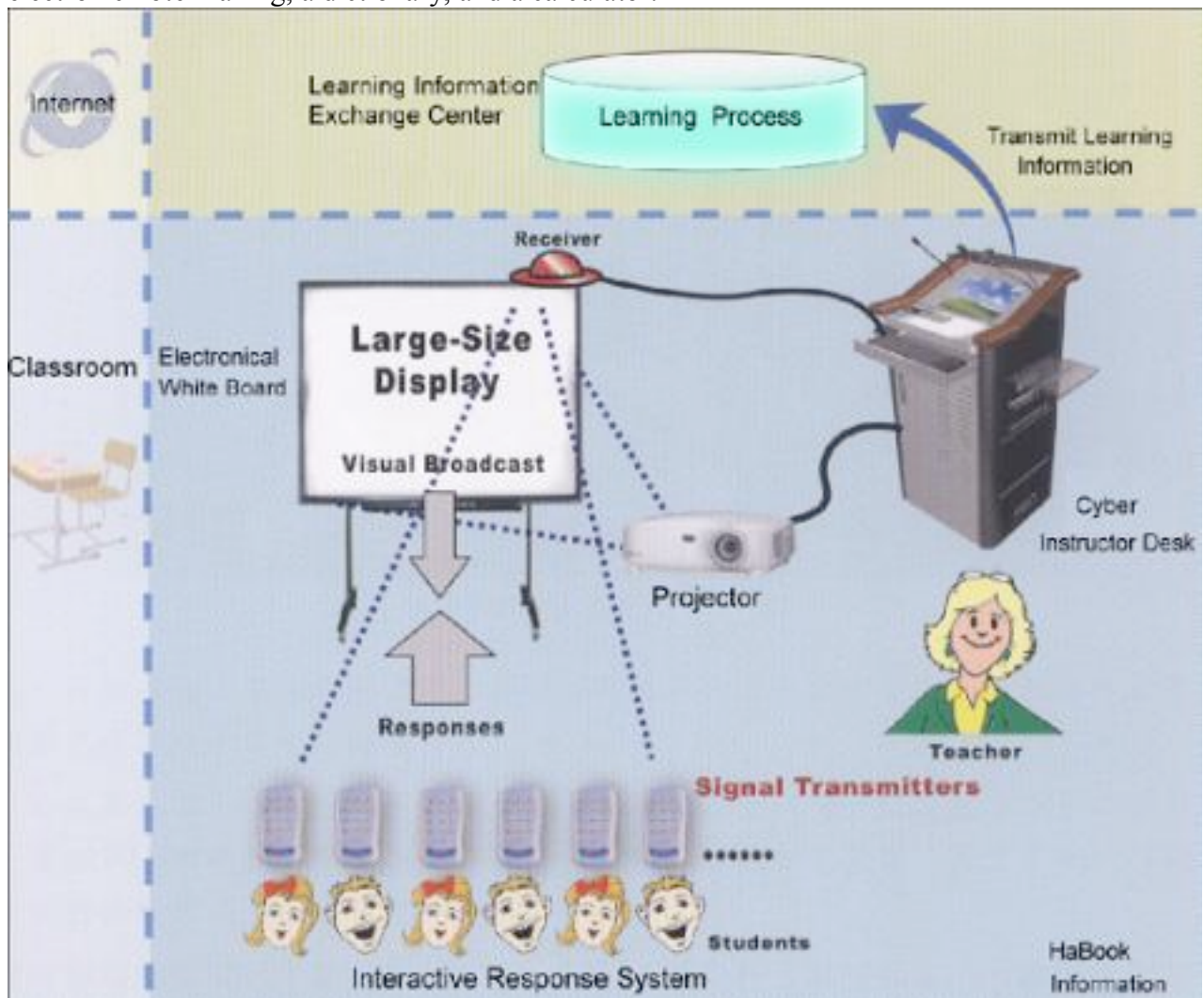

Figure3: Cyber Learning Classroom

## The procedure of promoting the use of library

1. Setting up Information Communication Technology (ICT) platform:
  We set up Fiber Distributed Data Interface (FDDI) as campus network backbone architecture, and most system servers are established by the Linux system. The Figure below demonstrates this architecture:
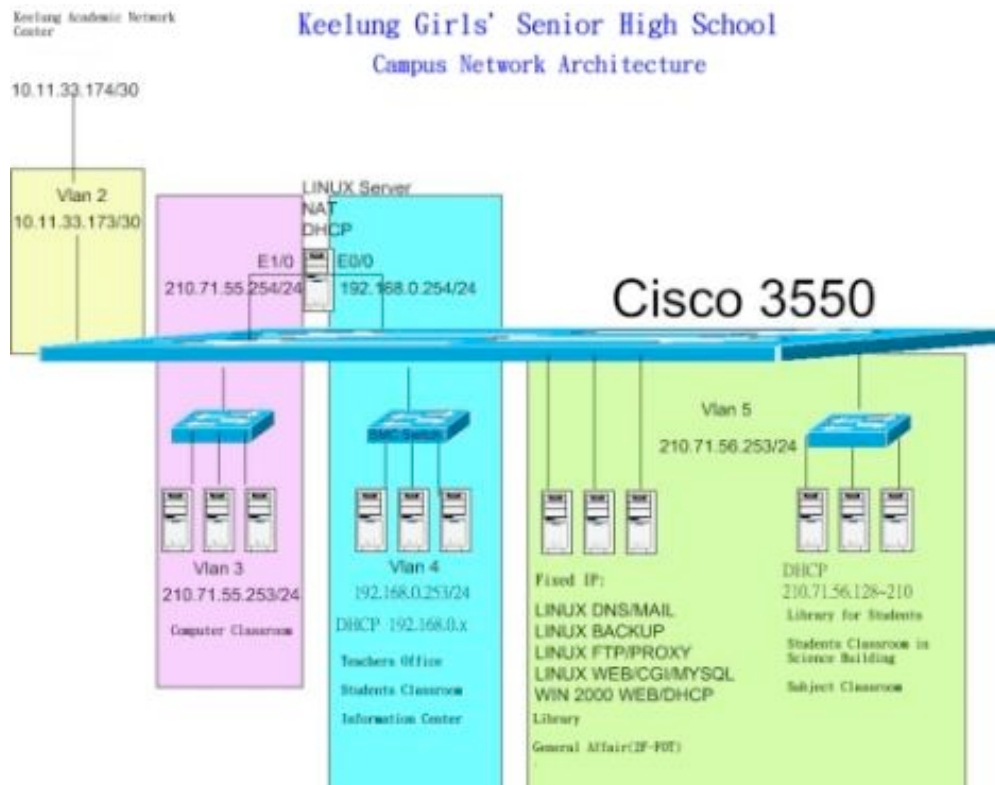
Figure4: campus network architecture

In Keelung area, there are over hundred schools connect to Keelung Academic Network Center(KANC) by FDDI network structure. From KANC connect to Taiwan Academic Network(TANET) by T3. We also set up Wireless Lan in campus, at the same time installing DNS, Web Server, E-Mail Server, FTP Server by Linux operating system, and set up Video on Demand Server by Window 2003 Server. As for IP address, we apply for two C class from TANET, it offers 512 fixed IP address.

2. Setting up Learning Management System (LMS) by HABOOK E-Learning system:

A learning management system simplifies the process of administering education and training. LMS help create and offer courses and curricula. They reside at the top of the offer column of our tools framework. We integrate software and hardware to promote teaching and learning, as well as building internet solution. By our highly efficient products, the teaching environment is more convenient, and the teaching session is more lively. In this way, there exists a highly interactive relationship between the instructor and the students. Through the aid of internet, the goal of computerized control and intercommunication system can therefore be achieved. These products are such as EZLearning, EduClick, EZTest, EZTeaching...etc.
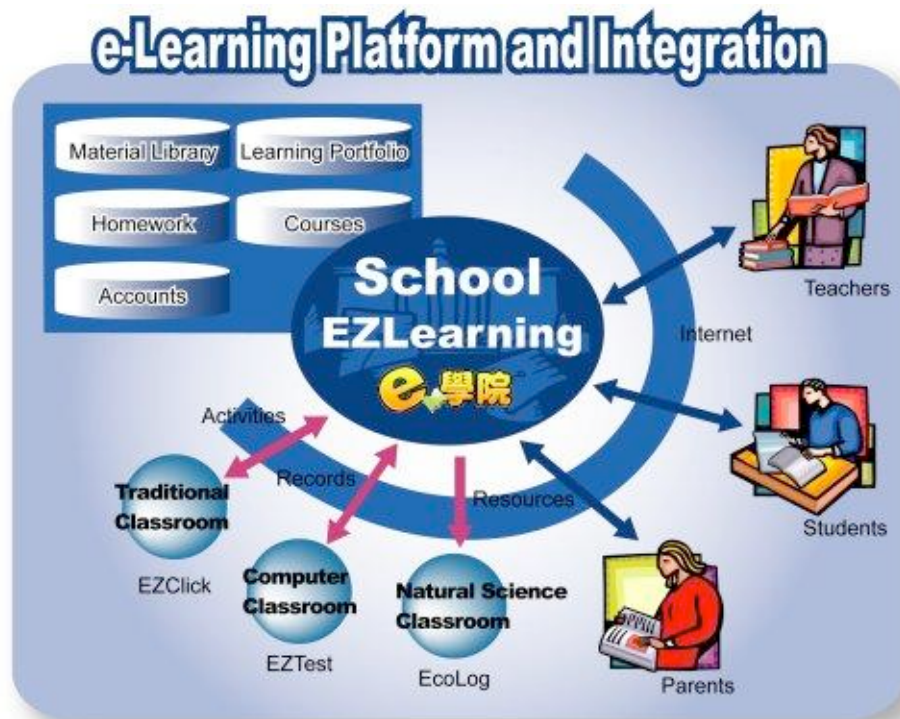
Figure 5: School EZLearning

## What is EZLearning

EZLearning is a platform built to help teachers better manage materials, resources and learning results. With this platform students can learn and obtain knowledge through internet activities.

EZLearning is an Internet learning information-integrated center. It's like an e-learning system at school, it is also a platform that supports learning material, manage resources and learning results. With the help of this platform, students can learn and obtain knowledge through internet activities. Not only that the platform supports learning with needed online services, but also combines learning information from internet with classroom work, to help create an e-school learning environment. This platform enables students to continue learning from home, on their own or with their parents. This endows better interaction between teachers, parents and students.

## What is EZClick

EZClick, a highly interactive remote instructional system, undoubtedly fits in with the technological learning in classroom environment. EZClick is a combination of software and wireless remote controls used to improve classroom interaction.

The remote controls must be handed out to each student. With the features of EZClick system, instructors can use the software to design media-rich multiple-choice questions. Instructors can create questions ahead of time or they can ask spontaneous questions at any time during the class.

During the course lecturing, instructor can pose a question to students, along with a set of answer options, all of which is projected on to a large screen. Students response by pressing the corresponding button on the assigned remote controls. Everyone's signal from the remote control will hit the infrared receiver to log answer into instructor's computer. These answers are instantaneously graded, tallied and analyzed by the system. The results are graphically available to the instructors and students. This function frees instructors from grading papers and compiling statistic.

EZClick is a set of in-class technological tool that promotes students' interests and attentiveness in learning activities. It also meets the rising demand for technology in teaching and learning. Therefore, why not let EZClick play a key role in helping students boost their confidence and learning performances!

*What is EZTest*

EZTest Highly Interactive Instructional System for Computer Classroom is a system designed for the computer classroom. It not only makes learning more exciting but also supports teachers with their exam grading workload.

EZTest Highly Interactive Instructional System for Computer Classroom only needs to be combined with the broadcasting system in order to work. It does not need other hardware and only needs to be installed in the teacher's computer along with internet access. The students can easily complete exams, analyze test results and helps teacher combine final grades, reach the goal of EZ Test and EZ Management. Evaluation, result analysis, and interactive learning are all available through EZTest.

3. Encouraging greater involvement of book-reading clubs among teaching faculty, administrative staff, students and parents:

It is generally agreed that an uplifting spiritual life of each individual contributes to a more harmonious society. Also, a smooth-running society is a generator that powers the huge machine of society. A resilient mind capable of any internal improvement begins with the willingness of an individual to remove as much as possible the weed of selfishness from his mind. This way, there can be hope for a society teeming with sympathy and compassion. Among the chief cost-efficient results are: individuals are encouraged to invest more time in reading books with a purpose or books that are inspiring. Individuals are also observed to get more involved in experience sharing or discussions of various kinds, to broaden their world of knowledge and to get to know each other better. Starting from year 2000, the central government set the policy of "one class, one book-reading club". Annually, one or sometimes more than one training camp of book-reading club leaders is organized by the school library. A good-quality books exhibition is also on the agenda of the school anniversary. The school principal also takes the leading role in the participation in the book-reading club's activities and the by-product of a better coordination among the administrative is often the result. The Taichung based office of the Ministry of Education also requested National Tainan Girls' Senior High School to hold network book-reading club for all senior high school in Taiwan. In Keelung, we have promoted this business for 3 years and have observed this club's students increase at a rate of 30% every year.

4. Training seed teachers to promote and popularize Multi-Media Information literacy:

In Keelung area, eight library directors of senior high schools and vocational schools proposed one Keelung area characteristic project to the Education Minister and received

US$200,000 in funding for the last two years. We invited instructors to train seed teachers how to operate multimedia tools, PowerPoint, MovieMaker, Anicam, Producer, PhotoImpact, Flash, FrontPage, etc., to create teaching materials. We prepared five-day training courses twice per year for two years.

Meanwhile, we asked seed teachers to establish and maintain teaching materials on a campus web page. We also hold Keelung area Web's Fair contests, invite teachers and students to attend it, and offer a prize for the masterpiece.

5. Holding regular contests in web page design, book reading report and evaluation of reading club performance:

The purposes of holding contests before the school's anniversary are evaluation of promoting activities' performance. We also encourage outstanding students to attend contests sponsored by outside of school. In 2004, one team of students obtained second place in the national web page design contest. At least one student gets an award from attending the national book-reading report contest every year. We offered reward for the counselor and students who get the award from attending contest. It makes them more confidence and  good for promoting information literacy and book-reading.

6. Issuing E-newsletters:

Our school has accumulated two years' experience of issuing e-newsletters. It is our hope that a better-quality, more versatile community e-newsletter will emerge if and when all 13 local academic and vocational senior high schools can work together toward the goal. There sure will be lots of benefits involved, less manpower and greater mutual exchanges among others. More important, it can serve as a platform on which creative issues of special interest can be discussed and the exchange and marketing of issue researches can be made known and made possible. The baffling problem is that an advisory team which is in charge of all academic and vocational senior high schools nationwide already has its own e-newsletter. Insufficient funding has also cornered and stopped the future publication of our e-newsletters. For the time being, all creative-thinking issues and issue-related research is channeled into the e-newsletters constructed by the aforementioned advisory team. Nevertheless, we are still in firm belief that from a long-term viewpoint, a community-level localized e-newsletter is what is needed to serve as a tool that helps boost the idea of marketing creative learning exchanges, provide an incentive to construct a life-learning environment and improve local citizens' capability   to confront and handle problems.

7.Creating Synchronous and Asynchronous Courses:

If we continually get the fund from Education Minister, we will create the   synchronous and asynchronous Courses as follows:
 I Asynchronous Courses:
   A Create the following multi-media tutor and training guide in web site:
      (1)PowerPoint presentation tool
     (2)PhotoImpact image processing tool
    (3)PDF document creating, such as Acrobat Reader
    (4)FrontPage homepage creating tool
    (5)Namo Web Editor home page design tool
    (6)Flash animator tool
    (7)Captivate tool
    (8)Producer tool
     (9)VideoStudio multi-media tool

(10)Anicam screen recorder tool
(11)CDex to convert CD format to WAV or MP3 format
(12)GoldWave audio edittng
B To invite instructors to explain how to create teaching materials by above multi-media
      tools.

II Synchronous Courses:
      Holding the following courses four times per year：
      Trainee will learn above asynchronous courses before taking the following courses.

| no | Subject name | Hours |
|----|--------------|-------|
| 1 | PhotoImpact image processing workshop | 3 hrs |
| 2 | FrontPage homepage workshop | 4 hrs |
| 3 | Namo Web Editor web page designing workshop | 3 hrs |
| 4 | Flash animator workshop | 7 hrs |
| 5 | Captivate workshop | 4 hrs |
| 6 | Producer  workshop | 3 hrs |
| 7 | VideoStudio  multi-media tool workshop | 4 hrs |
| 8 | Anicam screen recorder workshop | 1 hrs |
| 9 | Moodle e-learning tool workshop | 6 hrs |

## Obstacles to be conquered and recommendations

In Taiwan, all the senior high schools and vocation high schools meet some obstacles in promoting creative learning exchange. So far, we have 3 obstacles to be conquered.

1. Lack of qualified and certified teachers:
      Courses on systematic thinking process opened and going on at certain colleges and universities are mostly at their initial trial stage. Furthermore, as a result of an acute lack of qualified and certified teachers, the systematic thinking process did not extensively applied to the learning process off other disciplines of science.

2. Lack of pedagogical approaches:
      Due to an obvious shortage of capable teachers, translated materials that are sufficiently professional and suit the need of the students here are too few in variety and too small in quantity.

3. Financial problems:
      The project is still in its initial, groping-its-way-along phase, with no agency or bureau of any appropriate authority serving as its supervisor, it suffered from a tight budget, which in turn had its grave impact upon the matters of policymaking or performance evaluating. The limited financial resources available usually came as a response to a separate, specific case of research project. Often, and sad to say, we had to rely on the  meager appropriation from the school yearly budget.

      To confront and conquer the barriers mentioned above, we have come up with the following recommendations:

1. Creative thinking process should be incorporated into the design and development of school curricula.

Extracurricular clubs with creative thinking process as their core ideas can be started and their performance and results evaluated before finally being integrated into the whole school curriculum.

2. Institutes should created at local and national levels.

Such institutes, with promotion of creative thinking process as one of their vital roles, are supposed to hold seminars on a regular basis, carry out promotion programs and thereby evaluate their performance, construct web pages and issue e-newsletters, hold contests, and publish journals.

3. A sufficient amount of funding should be provided.

To get the necessary funding, the school in charge has to tender:
(1) Short-term plans regarding seminars on creative-thinking process and workshops of seed-teachers training programs,
(2) Mid-term plans concerning class-teaching demonstrations and related contests,
(3) Long-term plans with focuses on a better pool of teachers, a more definite outline of curricula and a more extensive application in colleges and universities as a selective or required course.

## CONCLUSION

The eventual success will be laid on the groundwork of selfless cooperation on the part of the administrative staff, the teaching faculty, the student body and the students' parents. To make the whole project possible, any and every possible situation has to be taken into account and incentives big and small have to be created. It is something that requires contribution made not only by individuals but also by all involved. The central idea of teaching students to learn how to learn and creative thinking approaches should always be the consistent goal because it is this ultimate capability that arms them in the face of problems and helps with the problem-solving.

It is estimated that a full 25% of an individual's resources is dedicated to learning in preparation for the challenges in life in a changing world. Such a huge stake of one's resources is absolutely an important and worthwhile investment rather than a meaningless and purposeless waste.

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# SearchingCommunicatingLearning, SMiLE and Many SMiLE: Strategies for building literacy skills in school libraries – three school library projects

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*SearchingCommunicatingLearning, SMiLE (Possibilities of School libraries for the Learning of students) and Many SMiLE are three school library projects, funded by The National Authority for School Improvement, with the aim that the school library through the growth of knowledge and pedagogical discussions shall be a more active part of the school. The projects will strengthen the cooperation between teachers and librarian, increase the competence in the field of information literacy, support the principles in their responsibility for school development and the part of the school library in that SearchingCommunicatingLearning is for the high school and SMiLE and Many SMiLE for the comprehensive school and they are all three designed in the same way: The three projects will last for one and a half years. Teams of teachers, headmasters and librarians from selected schools in the region meet at the universities driving the projects, once a term. There they have lectures and seminars and can take part of research in the school library field. There the teams also meet their mentors, who also visit the teams in their school and are in contact with them through net-based facilities during the projects.*

*School library, school development, information literacy, goal achievement*

## Background

In 2005 a group of librarians started a discussion on how to reduce the gap between the school library and school itself and how professional development to that end should be

organized. They cooperated with an education counselor from the Swedish National Agency of School Development. Time was ripe for a joint professional development, focusing on language and learning development in the perspective of digital competence for school librarians and teachers working in the comprehensive school. Recent research, notably by Louise Limberg and Mikael Alexandersson, had made it clear that teachers and librarians in schools have to reconsider their traditional professional roles and figure out how to cooperate in the joint venture of equipping children and young students for life-long learning, especially in terms of literacies, including digital literacy. The methods used must be adequate in a world of constant change and on the brink of information overload, the activities have to be based on both their texts and other modes of communication and encourage students' creativity. Finally, school must present reading as a meaningful activity as to make it possible for all to leave school as reading and writing individuals.

Originally the project discussed and planned for a long time was named "Mind the Gap", but was changed into SMiLE (SMiLE = Skolbibliotekets Möjligheter i Lärandet för Eleven = The school library's potential of learning for the student.)

At the same time a suggestion addressed to the agency from the Regional Development Centers at the schools of teacher education at Malmö University and Kristianstad University called SearchSpeakFind, the target of which was the upper secondary school, was granted the necessary means to get started. The name was changed into SearchingCommunicatingLearning.

The two diverging projects converged into parallel ones and the two project managers, Bibi Eriksson, Malmö and Maria Gunnarsson Contassot, Kristianstad, started in the beginning of 2006 a long period of careful planning and designing the projects. The plan was to launch the first "lärgång" in both projects in October. A "lärgång" = literally "walking/following a path of learning" is to be understood as a learning process during at least three semesters during which time gatherings for all participants take place at least once a semester for lectures, discussions and workshops and meeting with the teams led by each teams mentor. The first "lärgång" of project was offered to the three counties of Skåne, Blekinge and Kronoberg, the second one to Jönköping, Kalmar and Gotland, all in the southern part of Sweden.

A third project called Many SMiLE started in 2007 with a special profile due to the demographic situation in Malmö city. This project focus on the heterogeneous and diverse situation within Malmö, and so, in many of the schools: ethnical and cultural. This project was given to the Pedagogical Center in Malmö city and Helle Barrett became the project manager.

### *SearchingCommunicatingLearning.*

SearchingCommunicatingLearning is the project for the senior upper secondary school and its purpose is as follows:

- Teachers and librarians shall strengthen their qualifications in the area of information literacy and learning.

- Increase goal achievement among students.

We decided together with the Swedish National Agency of School Development to invite teachers and librarians in upper secondary schools. We sent the invitation to the head of administration for education in each municipality in the region. For the selection process we engaged persons from the university, from school development centers and from school library centers. Fourteen teams with teachers and librarians, mostly four teachers and one librarian, from fourteen upper secondary schools in ten municipalities were appointed. Their motives for joining the projects were that they had plans:

- to develop common routines and models for the students' project works

- to strengthen the cooperation between teachers and librarians

- to prepare the students for a society demanding good knowledge and skills in information literacy

- to develop the pedagogical role of the school library concerning information literacy

- to start a discussion in the school concerning knowledge and learning

- to increase goal achievement among the students.

Each team had a mentor, a librarian from the university. The mentor met the team during the meeting at the university and visited the team at their school between the meetings. The mentors met their teams eight times and their task was to act like a sounding board when the teams worked with their development work. We decided to call the mentors just mentors and not tutors, just to stress that the development work was the responsibility of the teams and that SearchingCommunicatingLearning just offered a support for that. Between the meetings at the university and the meeting at the schools the mentor and the teams worked together on the university's web-platform Webzone.

Not including the start and the close of SearchingCommunicatingLearning, which took place in the middle of the referred region in a cultural centre, the teams met three times at the university with lectures and seminars concerning:

- information literacy as a part of the pedagogical process and the significance of the task given to the students

- criticism of the sources and critical attitude

- a widening conception of language and text

We engaged well-known researcher in Sweden, both from our own university and from others. Professor Louise Limberg started with a survey of her own research about teaching information literacy. We continued with reports on research on "learning style", criticism of sources, Carol Kuhlthau's analysis of the information seeking process, the import of meta-cognition in the information seeking process, the cooperation between teachers and librarians and the pedagogical character of the computer game. In between the mentor met their teams with discussions about the lectures and about their development work. In the end of the project the headmasters of the participating schools met at the university for a seminar on "How can a project survive?"

After the project all teams had to write a report on their development work. The stressed on a few issues:

- Louise Limberg's research on the lacking correspondence between curriculum-teaching-assessment

- the cooperation between teachers and librarians

- the significance of meta-cognition during the information seeking process

- the templates in Carol Kuhlthau's "Teaching the Library Research Process"

- the significance of scaffolding the students during their information seeking process

- the pedagogical role of the school library and it's potential in school development

- the importance of letting the students meet different kinds of texts

- the experience of being a "student" in the project.

The mentor also wrote their reports where they express their feelings about "this long and instructive journey". Their role as mentors was not clear from the beginning; the take-off was very long. They had to declare their role as support- persons not leaders and that was not very easy. Some of them missed a teacher co-mentor who could have challenged the teachers. The mentors found that the librarians were the local leaders of the development work in the schools. They found the long time of the project very satisfactory.

Halfway into SearchingCommunicatingLearning, the teams had to answer some question about their opinions about the project. Most of them found the project very inspiring. To meet researcher and listen to the latest on the research front-line was much appreciated. To meet colleagues from other schools was very fruitful. A wish was more concrete examples and more concrete discussions. One problem was lack of time, the teams found it hard to get time to meet at home during the project. In the end of the project the participants had to answer seven questions:

- Which new knowledge have you acquired?

- Which new skills have you developed?

- How has the project changed your thinking about teaching?

- In what way have you changed your teaching?

- How have the students answered to this change?

- How have you changed your use of the school library?

- Has the project disseminated in your school?

The participants answered that they had learned a lot about information literacy, meta-cognition, learning styles, the significance of scaffolding, students' anxiety about the information seeking process, about cooperation, the pedagogical role of the school library and the significance of questioning one's own praxis.

When it came to skills the librarians wrote about their pedagogical role and the teachers about cooperation with other teachers and librarians in subject overall projects. When it comes to the change in teaching praxis many participants write about their growing belief in the students' competence: "The students can do a lot more than I thought!" But many participants also write that they found that the students need a lot more scaffolding than they thought before.

The students have mostly been positive. But they have to get used to this form of work, they must have routines and a lot of scaffolding from the library. The use of the school library has been changed, definitely! "A more distinct cooperation. We speak the same language, we have a common professional language on information literacy, and we have a common view on pedagogical issues!" "Earlier I thought that the school library was for the students. Today I think it's for me!"

When it comes to dissemination in their own school most participants describe a beginning of a change. The librarians and the school library have been made visible in the project and the interaction has increased. "SearchingCommunicatingLearning has helped us to give more structure to our project works." "We want to change our way of working and change the structure of the school."

Focus in the SearchingCommunicatingLearning has always been on:

- the school library and information literacy

- cooperation between teachers and librarians

- pedagogical issues

- school development

Information literacy has been treated in many ways and from many points of views. The cooperation has also been treated in many ways, both practically in the development works and in lectures by researchers. There have been a lot of pedagogical discussions and both teachers and librarians express their satisfaction to having time for deep and questioning talks on important issues in education. The school library as agent in the school development has been on the agenda where the headmasters were participants in SearchingCommunicatingLearning.

And what have we learned? Perhaps it was a mistake to send the invitation to the head of administration for education. Perhaps we should have sent it to the headmasters of each school and in that way involve the leader of the participating schools. Now few headmasters participated and the support of some the teams sometimes insufficient. Perhaps we should have headmaster's participation as compulsory: "Not without my headmaster." Perhaps the information about the nature of SearchingCommunicatingLearning should have more distinct: the project was to be seen as supportive to the teams own development work and not a course. Sometimes we could see frustration from the teams when they wanted initiative

from mentors and project managers. Perhaps we should have engaged teacher educators as co-mentors as a support for librarian mentors to show the participating teachers that the project was more about learning than about school library.

Will SearchingCommunicatingLearning survive and develop? Most teams express optimism, they think that with this project they have started a development work towards efficient and successful project works, towards better teaching in information literacy, better cooperation between teachers and librarians, better pedagogical discussions hopefully leading to more concordance in pedagogical issues.

We find the design of this project very attractive and easy to adapt to very different needs. You can easily do it locally with a few schools. The design with the long time, the connection with research and the development work "at home" makes it both easy to organize and effective.

## SMiLE

In the spring of 2006 invitations were sent out to the head of administration for education in each municipality of Skåne, Blekinge and Kronoborg. The purpose of the project was presented as follows:

- to support school leaders in their pursuit of school development, emphasizing the role of the school library

- to enhance the cooperation between teachers and the school library staff over time increase students' goal achievement in the comprehensive school

The ideal group should consist of five persons: a school leader, to travelling expenses. There were many applications and many of them seemed to match the demands of qualification, i. e. describing the present situation and a vision for the future, linking to an existing action plan or the intention of creating one, expressing a wish to develop ways of teaching in close cooperation with the school library as means of enhancing the students' development of language and learning. 70 participants from 9 communities and 13 schools were welcomed into the project. Nine members of the Mind the Gap – group, all librarians, were assigned to function as mentors in the first "lärgång" , each of them bearing head responsibility of one or two groups and the continous meetings and digital communication between the gatherings at the universities of either Malmö or Kristianstad.

"Walking this path of learning" has presented participants to lecturers, notably Dr Louise Limberg and Dr Ross Todd. Dr Limberg claims that the traditional school discourse may be broken if both traditions, that of the library and that of the school are challenged. This requires courage and stubbornness, knowing what one wants to achieve, students who learn that answers are not easy to come by, which means feelings of insecurity and secures learning, an undertaking that demands close cooperation between librarians, teachers *and* students. Dr Todd's lecture *School Libraries and Student Learning: Essential Partnerships for Success* focused the all too common individual work that contributes very little learning, if any, at all. Teachers and librarians have to ban the "pick a bird"-conception and to stop abandoning children who need to "encounter alternative perspectives and conflicting ideas so

that they are able to transform prior knowledge and experience into deep understanding" ( from lecture given Oct 3, 2007)

Other lecturers gave ample evidence from their research on the importance of cooperation learning. Dr Anders Jakobsson had distinguished five ideal types of students when observing how they interacted: the reproducer, the knowledge builder, the meaning maker, the ethicist and the relation maker. Those best learners were the knowledge builder, the meaning maker and the ethicist. Although hard working the reproducer did not learn that much more than the relation maker.

Dr Jonas Linderoth was chosen as representative of the research focusing on computer games as a sociocultural phenomenon. He showed the similarities between computer games and literature – games are stories, more interactive than stories in a book, but still stories. Learning and playing are both linked to thinking

We strived to organize the programme of each of the five gatherings in a way that gave ample time for discussions in various group constellations. Once a workshop was organized, participants worked in pairs, trying out themselves various net-based tools for pedagogical purposes.

The regular meetings with the mentors mirrored how the process of designing the work of development got started. Impatience, frustration and confusion in the beginning slowly changed over time and the participants saw more clearly that they were performers rather than consumers of a course, expected to achieve development work locally, planning, performing and evaluating and present it to each other at the last gathering. The role of the mentors, as is pointed out in the sister project SearchingCommunicatingLearning, was not to be a tutor, but rather a sounding board and supporter.

Meanwhile it was time to address an invitation to the counties of Jönköping, Kalmar and Gotland. The response was not too encouraging. The councellor at the The Swedish National Agency for School Improvement mentioned above, who had initiated the project, had resigned. 39 participants representing 4 communities and 8 schools equaling the actual applications were welcomed to join the second "lärgång". This meant that no selection was made, which was approved by the Agency.

Two mentors, a chief librarian in Jönköping and a lecturer at the Gotland University were willing to function as mentors. SMiLE was by now quite well known and it can be said that the applicants were all qualified, or the difference between the selected participants in the first "lärgång" and the non-selected ones in the second one would have been more significant, as shown by their applications, and later evaluations and reports.

The participants met most of the lecturers who contributed in the first "lärgång", unfortunately not Dr Todd. A lecturer who was to focus on the cooperation between librarians and teachers fell ill and it was vital to find another lecturer, which we did, an excellent at that, but the effect was probably a feeling of "more of the same" and too much focus on the class room and the teacher.

The participants were encouraged to create reports that rather showed than told the development work achieved. We asked the following questions, suggesting that the might help to structure the report:

Where were we when entering the project? What were our expectations? Which stops during the journey gave more than others food for thought? What of what we did have, have we developed? In what way? Anything new that we are trying/will try to integrate in our daily work? Where are we now? What's next?

The participants were also expected to present their work orally and briefly at the last gathering, as a trailer for the report to be distributed on the net.

The reports mirror very clearly the increased cooperation between teachers and school library staff. Apart from texts, reports were mediated through mindmap, leaflet, Power Point presentation, film. Action plans are often enclosed. Nevertheless groups refer quite frequently to theories having been presented to the in the form of lectures and literature that the have met during the project.

A quotation from the lecture by Ross J Todd, "Collecting facts is the beginning and not the end of a task," may be used to summarize the frequent discussions on the issue of how to organize good learning possibilities for students.

Libraries have developed from mere book stores to living libraries – this was shown by means of films and PP presentations.

A group summarized what the wanted to develop in the mode of an acrostic - each line indicates a particular field to develop.

In translation, approximately:

S        Searching *in the library and on the net*

M       *Multiple possibilities of knowledge*

i        *Internet and criticism of the sources*

L       *Looking, reading, learning*

E       *Examples – to find the good ones, among the many*


The following questions were chosen for the final evaluation:


1.  What new knowledge have you acquired?

2.  What new skills have you acquired?

3.  If so, how has the project changed your way of thinking on teaching?

4.  In what way have you changed your teaching? Why? Or: In what way would you like to change your teaching? Why?

5.  How have the students responded to the change/ changes? Or: how do you think that they will react to the planned change/ changes?

6. If so, how has the project changed your way of using the school library?

7. Has your participation had a dispersion effect at your school?

Typical answers mirror an increased consciousness about the importance of designing school work in a way that really enhances learning and of cooperation learning for both students and the grown ups present in school.

"Low achieving students also develop well in the library" and "school is actually a place of collective learning" are perhaps examples of rethinking teaching.

"Students´ projects need to be structured much better and we must help" and "the combination teacher-librarian offers the best possible guidance for students.

Two possible student reactions are as follows; students like to own their projects, i. e. participate in the planning of them or resistance is to be expected – many students choose the easy way out and claim to be served. Working à la Todd demands more but once you've understood the meaning of it, the more interesting it gets.

A librarian describes the occurred change: from book store resource to a resource person.

Dispersion? Answers vary from a doubtless YES! to more careful statement: "Possibly – hopefully. The SMiLE-group intends to keep up the good work and from now on constitute the Library Council."

The mentors report that their task has not been easy but a most rewarding one and meant deep professional development. " Our role has been to be a sounding board onto which the thoughts of the participants were to bounce back a little bit more shaped, to be caught and put into practice", as one mentor, quite poetically puts it.

The difference between groups led by active school leaders and those who are abandoned, to some extent has been painfully clear. An example of the latter, from a mail addressed to me: I regret that I'm unable to participate next time, but my girls manage this so well all by themselves – an attitude that would also be interesting to examine from a gender perspective.

On the other hand, quite many of the school leaders accepted the invitation to assist a much appreciated seminar on the art of having projects in general to survive and develop and these two projects in particular. One of the school leaders mailed me to let us know that she in this project had really felt that she is a *pedagogical* leader. The combination teachers-library – school development has been great in the meetings concerning learning."

Two of the mentors are somewhat pessimistic. They find that the future of the school library depends on those passionate. The school library must become anchored in schools and thus not depending on individuals. But plenty of good examples have been shown, the power of which should not be underestimated. The examples inspire and evoke respect of the participants, who all work on behalf of the future. Louise Limberg stressed that both parties need to be courageous together in order to challenge the traditional school discourse, which in its turn requires self-confidence. A mentor comments on how the participants were growing in presenting their work to each other – did we achieve all this, considering the initial confusion and frustration.

Finally, a few words on the importance or writing to think and to learn, i. e. process-oriented writing. Some of the confusion could perhaps been avoided if it hade been possible to foster participants to keep a journal all through the project. The digital platforms were used by mentors and the project leaders. It has little to do with a supposed lack of digital competence but much more to the fact that the traditional school discourse stresses reading so much more than writing.

## *Many SMiLE*

The Swedish National Agency for School Improvement has also funded a local form of the project SMiLE in the City of Malmö, focusing on the heterogeneous and diverse situation within Malmö and so, in many of the schools: ethnical and cultural. Twelve schools with 75 participants are involved in the project. Principals, teachers and librarians are in the middle of a development work that will last until spring 2009.The intention is to show that, through the growth of knowledge and discussions about school library and learning, the school library can become a real active part of the school.

The project goals are:

- to strengthen the cooperation between teachers and librarians

- to increase the competence in the field of information literacy

- to support the principals in their responsibility for school development and the part of the school library in that development

Many SMiLE targets comprehensive schools and focuses on the cooperation between teachers and librarians and aims to increase students' goal achievement. This local project is special because many schools in the same community are participating, each following their own track of development work. Otherwise it is designed in the same way as the sister projects. Once a term, teams of teachers, principals and librarians meet at Malmö University, which is involved in the project and at the same time plays a very important role in the local in service training. The teams participate in lectures and seminars, learning about and discussing research in the school library field and learning results. Mentors, who are experienced librarians and teachers, play a significant role in the projects; they visit the schools and keep in contact through net-based facilities.

The teams will engage in development work in their schools, and this work will be documented as a process. Already a lot of documentation has been generated and hopefully there will be plenty of data to use for evaluation.

Here are some of the key questions:

- Has the school library, through the growth of knowledge and pedagogical discussions, become a more active part of the school?

- Has information literacy competencies increased among teachers and school librarians?

- Has cooperation between teachers and school librarians been strengthened?

- Has the project had any impact on students' learning?

The principals are very important in the process, and to meet that aspect, special arrangements are made for them. In some schools the principals are deeply involved and a leading participants in the project. It is going to be very interesting to find out, whether that will show any outstanding difference in the evaluation.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Creating role models of reading
# - Through national, regional and
# local competitions

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*To improve the reading abilities of students in sixth grade several pilot projects have used national, regional and local competition to prove that reading is cool. The aim is to create role models of reading instead of book droppers. This paper describes two of these projects: "The national championship of reading" and "Ready, set, answer". "The national championship of reading" is inspired by a similar Dutch project. The aim of the competition is to make it prestigious to read and be good at reading aloud. "Ready, set, answer" is a quiz, which is build around all kinds of reading. This competition is not focused only on novels.*

*Reading, role models, competition*

## Background information

Over the past few years there has been great focus on reading in the first to third grade in Danish schools. PISA – Programme for International Student Assessment - showed that Danish students were far behind other European countries, when it came to teaching young children to read. After a few years of successful actions to improve the reading of young children the attention was drawn to students in the fourth to sixth grade.

The reading of first to third grade students has been greatly improved, but in failing to continue the efforts after the third grade, Danish schools experienced a greater amount of book droppers in the fourth to sixth grade.

To counter this development, several pilot projects arose. The strategy was to prove that reading was not for nerds. Readers should be considered role models. Several of these projects were very successful and have grown from local to national projects. This paper will describe two of these projects: "The national championship of reading" and "Ready, set, answer".

Both of these projects have been economically supported by the "Desire to read" campaign, which is a joint initiative between The Ministry of Culture, The Ministry of Education and The Ministry of Family and Consumer Affairs. The "Desire to read" campaign was initiated in May 2004 and was ended in 2007. The aim of the campaign was to "inspire children and young adults to read and experience the wonderful world of books". The goal of the campaign further states: "Books are but a part of the media use of children and young adults and therefore it is necessary to combine interactive experiences with the books."

It has recently been announced that the three ministries behind the campaign has decided to grant the campaign 4.3 million DKK (approximately 900.00 USD) every year starting in 2008 through to 2010. In this new part of the campaign around half the money will be put into continuing projects that are considered excellent examples. Both of the projects described in this paper are amongst the four projects receiving these special funds.

# "The national championship of reading"

"The national championship of reading" is inspired by a similar Dutch project. The aim of the competition is to make it prestigious to read and be good at reading aloud. To make it cool to read, the competition creates a fun and exciting environment to read aloud in. The project is a cooperation between public libraries and schools which wish to participate in the competition.

The competition was originally initiated by public libraries of two major cities in Denmark, and it is up to the individual library to decide if they wish to participate. Only schools in the area of a participating library can join in the competition.

The public libraries are hosts of the competition. They invite all schools (private as well as public) in their area to participate. Only grade six students can participate in the competition. Each participating school can submit one student to the first step of the competition. It is up to the individual school how they wish to select this student. Some schools choose to have a contest amongst their students to find the best reader. Other schools choose to let the classes of sixth grade decide on the best reader amongst themselves. Either way it creates an opportunity to acknowledge other competencies than popularity, as the most popular boy or girl in the class is not necessarily the best person to represent the school further on in the competition.

The representatives from the participating schools in the municipality compete against each other at the local public library in the first step of the competition. All contestants bring their class mates to the reading.

All contestants read a page in a book they have chosen themselves. Before they start reading they must introduce the book and explain why they have chosen this book. After reading the text of their choice, the contestants must read a piece of unknown text.

The contestants are judged on five different qualities in their reading.

1. Understanding of the text: The contestant chooses a paragraph in a novel or an anthology. The paragraph has to be chosen in a way that allows the text to give meaning to the listeners. Previous to the reading the contestant must briefly account for the author, the title of the book, characters appearing in the paragraph and the storyline previous to the chosen paragraph. The reading and the introduction must last five minutes: One minute for introduction and four minutes for reading aloud.
The contestants will be judged on the following:
- As an outsider, was it possible to understand everything that was read aloud?
- Did the introduction provide the listener with sufficient prior knowledge?
- Were the right places stressed throughout the reading?

2. Use of the voice: The contestant must read loud enough that the text can be heard but without the voice being strained. Furthermore, the contestant must display a personal interpretation of the text, but without overacting.
The contestants will be judged on the following:
- Is the text read loud without strain?
- Was the tone of voice appropriate for the story?

3. Pronunciation: The pronunciation must be careful, distinct and clear without being spelling pronunciation.
The contestants will be judged on the following:
- Is the pronunciation careful and distinct?

4. Pace: The contestant must give the text the pace it requires and be attentive of pauses.
The contestants will be judged on the following:
- Does the contestant read at an appropriate and pleasurable pace?
- Did varieties in the pace occur in places where this was necessary?

5. Contact with the audience: It is important that the reader does not have his or hers eyes fixed on the text throughout the reading (for this reason it is important to know the text well, yet without knowing it by heart). From time to time the contestant must be able to look up and make eye contact with the audience.
The contestants will be judged on the following:

- Does the contestant from time to time look up and make eye contact with the audience?
- Did the audience listen to what was being read?

A panel of judges decides which student continues on in the competition. In this first step of the competition it is up to each library, who they choose for their panel of judges. An example could be a librarian, a local politician, a teacher with no relation to any of the schools participating in the contest and a journalist from the local paper.

The winner from each municipality continues to the semi finals at their regional library, where they meet the winners from all other participating libraries in their region. The process here is the same, and each region selects a contestant for the finals. Ten students participate in the final step of the competition.

In 2007 the finals was a big event arranged in association with the Danish Public Service TV channel DR. The ten finalists ventured to Aarhus in the northern part of Denmark with their class mates, where they met in a big show with well-known children's program hosts, entertainment and a buffet lunch. The judges in the panel were a famous Danish actor, an author, a rhetorical teacher and a children's culture consultant. After each reading one or two of the judges would point out weak and strong points in the contestants reading and suggest points for improvement.

For the second reading (reading of an unknown text) a big Danish publishing house had sponsored books for the contestants to read from. All contestants read a different piece, but from the same book. The publishing house awarded the contestants with a set of the book for each class.

After the second reading the judges decided on a winner of the competition. The winner was awarded with a cell phone by Nokia and a two day trip for the whole class to Scandinavia's biggest amusement park "Liseberg" in Göteborg, Sweden.

Furthermore, the winners of "The national championship of reading" were engaged in the outcome of another competition. The Danish Public Service Channel DR had held a competition for the best horror story written by a child earlier in the year. In this contest all children could submit their own horror story and the ten best stories were recorded in a studio by the ten finalists of "The national championship of reading". Both local and national press was present at the finals and considering that it was a competition for sixth graders the media interest was satisfying.

The school librarians who have had their schools participate in this project have generally appreciated this as a good opportunity to guide the classes in how to choose a good book to read. It has also offered a chance for extended collaboration with the class room teacher. Generally the students have had great interest in the books that other students have read from and this has increased their interest in reading and broadened their reading horizon.

A school library coordinator for one of the participating municipalities has expressed these advantages in the cooperation between public libraries and school libraries: The public libraries contacted the coordinating school librarian which offered a better opportunity for presentation of the concept. The public library can only communicate with the individual school by email or other written medias, but when involving the school library coordinator a whole other level of communication is opened. The coordinator has the opportunity to deliver the project orally to his or hers co-workers in each school. It is much easier to explain and engage, when you are facing the people in question. This way the school librarians from each school can get answers to all of their questions and therefore better communicate the concept to the class room teachers in question.

Another advantage is that by using this form of communication the school librarians are already familiar with the competition when a class room teacher requests advice and assistance in the organizing and choosing of books. By letting the school librarian assist in this part of the process you can help the students have a good reading experience. School librarians have much deeper knowledge of literature and which books are good to read aloud from. It is important to choose text without too much dialogue for example, as this is hard to read aloud. If a contestant progresses in the competition a school librarian can also offer help and guidance without time being taken from the rest of the class. On the other hand the public library offers a neutral space for the competition to take place. By using their facilities no class or contestant have the home field advantage and everyone is offered equal opportunities.

To help the students as well as the school librarians and class room teachers guiding the students, the organizers developed this list of advice:

How do I choose a good book?
Here is some advice to help you, when you are trying to choose a good book and a paragraph to read aloud from:

- You should choose a book which you like. If you choose a paragraph from a novel, make sure to find a well rounded piece or a short chapter.
- Try to read a section of the book aloud to determine if the book is good to read aloud from. This way you also know how long it takes to read a page.
- Make sure that there are not too many characters appearing in the paragraph, as this will be confusing for the listeners. You should also make sure that there is not too much dialogue in your paragraph.
- If you find it hard to choose a good book, ask your teacher or your school librarian for help.

How do I practice?
- Practice often in reading aloud. Try reading for yourself, for your class mates and for your parents. Ask them to comment on your reading. You can also try to record yourself on tape. This way you can listen to yourself afterwards.
- Make sure you understand the paragraph you have chosen completely. You should also make sure that you know exactly what has taken place in the paragraph previous to the one you are reading.
- Carefully read the advice below so you know, what the judges will take notice of at the competition.

How do I become the champion of reading?
- Begin by mentioning the author and the title of the book before you start reading aloud. After introducing these two elements you must briefly account for the storyline in the book and inform the listeners of things that are important for them to be able to understand the paragraph you have chosen. This could be introducing characters, which appear in the paragraph or explaining what has taken place right before your paragraph begins. The shorter the better.
- Do not read to fast. Take your time and make sure that the paragraph you have chosen fits the time frame (five minutes including the introduction). It is better to choose a slightly shorter paragraph than to have to read too fast towards the end.
- Speak clearly. Use your own natural voice and try to relax while you are reading.
- Make sure to have contact with your audience. Do not hold the book in front of your eyes, but look up from the text from time to time and try to make eye contact with someone in the audience. This is easier if you know the text well, but you should not know it by heart.
- Do not try to act. You should however use your voice to express the atmosphere in the text by raising and lowering your voice or changing the pace.
- Do not shout too loud. This is very important if at some point you have to read into a microphone.
- It does not matter if you make a mistake. Take a deep breath and start over on the sentence.

The students have commented that the participation in "The national championship of reading" has been a fun and engaging experience. They have gotten new ideas for books to read and it has strengthened their social solidarity. The students have also learned to appreciate new competencies in their fellow class mates.

## "Ready, set, answer"

"Ready, set, answer" is another example of a project which wishes to improve the reading of grade six students. This project started out as a local initiative and was so successful that it is now a nation wide project. Like in "The national championship of reading" it is up to the individual school to choose their representatives. Each school selects a team of five students to represent them, and this team competes against other teams in the

municipality. The winner moves on to the regional competition and in the end the winners of the regional semi-finals meet in the national finals.

"Ready, set, answer" is a quiz, which is built around all kinds of reading. This competition is not focused only on novels. This is a very deliberate decision from the originators of the project as part of the goal is to show that reading is a crucial ability in life as well as proving that not only book lovers can be presented as role models of reading.

The competing teams will have 24 different categories presented to them. Each category contains three questions which the team has a short amount of time to answer as a whole. The categories cover many different subjects from Harry Potter to food recipes to children's songs to manuals of electronic equipment. Therefore it is important that each class chooses contestants with different competencies. Most of the teams progressing far in the competition had a similar team structure. The teams generally consisted of specialists within different fields and often one student with general knowledge of many fields to be the back up. The team often appointed one student as the team captain to allow the rest of the team to have more time to think as the team captain would take notes of the answer and deliver this to the quiz master.

As mentioned above the categories vary from literature to recipes and manuals to questions of relations between books and music or movies. Here are examples of six categories:

Stories of animals:
Kipling, author of "The jungle book", has written an exciting story of a brave little civet cat, which conquers a cobra and saves its human family.
What is the name of the civet cat, which has given name to the story?

Hans Christian Andersen:
How old is Hans Christian Andersen?
Where was he born?
What did he want to be before he became a poet?
What is he also known for?

Name that character:
"If the motorcycle was huge, it was nothing to the man sitting astride it. He was almost twice as tall as a normal man and at least five times as wide. He looked simply too big to be allowed, and so wild – long tangles of bushy black hair and beard hid most of his face, He had hands the size of trash can lids, and his feet in their leather boots were like baby dolphins."

Guess a sport:
Traditional English sport where you can talk about ball, bat, pitcher, bowler and wicket.

On the horse:
In this riding discipline horse and rider conduct exercises following a programme, which includes halt, walk, trot, canter, circles, flying changes and piaffe.

Name the athlete:
"It is not about the bike: My journey back to life" is the title of a book by a famous American biker. What is the name of the author?

2006, which was the second year of "Ready, Set, Answer," was a nationwide competition. 15 teams of grade six students competed against each other at the finals in Odense. 620 teams entered the competition and 80 teams went on to the semi-finals. The finals were a big event with a famous Danish rapper as the host and the winning team won a weekend trip for the whole class. 80 libraries had hosted the local competitions from the start and naturally the finals also took place in a library.

One of the initiators of the competition, who is also a teacher and has had the main contact with the school libraries throughout the competition, states: When starting a project like this it is very important to take the time frame into consideration. The schools have to be informed well in time, as they have to get the competition into their planning of the teaching for the whole year. Generally it takes time to get something like this started. The word has to spread and teachers and school librarians have to see the advantage of a reading

competition. It takes at least a couple of years before it is really up and running. When making the questions there are also many things to take into consideration. The questions cannot be too easy, but they must also not be too hard. It is important that even the listeners feel that they are engaged, when the competition takes place. Another important issue is the language. Unfortunately it is not possible to just have the local libraries make their own questions. It would create too much of a difference in difficulty and language use. And when reaching the regional and national level it is also important that none of the questions contain any form of dialect. Part of the aim of this competition is to focus on collaborative learning. It is crucial for the success of the group that it consists of students with different competencies. In the finals in 2006 one of the questions was: Ready these instructions and make a paper air plane. Someone who knows all about Harry Potter is not necessarily good at this.

The Danish Centre for Children's Literature has conducted an investigation of the outcome of the completion in 2006 in cooperation with the arrangers. In this investigation a questionnaire was sent to 20 sixth grades across the country. It was targeted at classes where a team participated in the first step of the competition. Both students on the team and the rest of the class answered the questionnaires first part. The second part was only answered by students on the team participating in the competition. 98 participants answered the questionnaire. Furthermore, an interview session with 5 of the teams was conducted.

The aim of the investigation was to try to determine what creates a desire to read. However, the investigation gives great insight as to how the students have experienced being part of this competition. Most important to the students have been to show their peers that they have great knowledge through their reading and their reading ability. They have experienced great support from their class mates, their teachers and school librarians, their parents and the local community. The students also thought that the competition was a great way to introduce the public library to those of their class mates who does not normally use the library. They have also experienced that some of their class mates have turned against them, when they answered a question incorrectly and that some students have been jealous of the teams getting special treatment with for example soda and biscuits. This is not considered a problem by the teams, as the positive aspect of the competition has been far greater than the negative. Both teachers and the students on the teams have tried to counter the negative effects by talking about how to behave during the competition on the teacher's part and sharing their goods on the students' part.

The acknowledgement of competencies has also gone beyond the reading ability. In the original pilot project that only included six schools form one municipality many prejudices were put to shame. The winning team consisted of five boys from a private school. Not only did this prove that not all boys are book droppers, the local opinion was that this particular school did not teach the students what they needed to know. This is no longer the general assumption in the local community.

The investigation also looks at the role model aspect of the competition. Does "Ready, Set, Answer" create role models of reading? The students are asked how they came to be part of the competing team. Though the method of choosing the contestants is up to the school, the students generally volunteered, appreciating and understanding their own competencies within the field. This shows that the students in general already have confidence in their abilities and that they dare to stand up in front of their class mates and nominate them selves, after which their fellow students have had trust in their abilities and voted them as part of the team. As a result of this they can be characterized as confident, independent and competent representatives for the class. They seem to already have positions as role models. In conclusion the students on the teams are not made role models as they are already considered as such by their peers, but a special ability and knowledge is enhanced in their participation.

Furthermore, the schools participating in the "Ready, Set, Answer" have teachers and school librarians who have focus on reading and who are willing to invest time in projects concerning reading. In general this means that the competition does not necessarily reach the group of students who are not introduced to reading as a priority already. The challenge is to reach schools where teachers and teacher librarians do not prioritize reading projects and to engage students who are not already role models.

In the fall of 2008 "Ready, Set, Answer" is back after a one year break. Having received funds form the "Desire to read" campaign they are able to engage more students in alternative reading experiences. From 2008 and onwards the competition will be targeted at grade seven students in stead of grade six. This decision has been reached in cooperation with "The national championship of reading", as the two projects have found that it is very hard, if not impossible, for teachers and students to participate in both initiatives in one year. As most book droppers occur in the sixth and seventh grade the initiators of the two projects have concluded that these

are the grades to focus on. As the students come into their teenage years, they are more reluctant to stand up in front of a crowd, which is why it has been chosen that "the national championship of reading" will continue in sixth grade, where as the team based project "Ready, Set, Answer" will move on to seventh grade students.

The project leader of "Ready, Set, Answer" states that they are very excited to reach this new group of students: "By changing our target group we also have to change our ways. The questions have to be harder and we have to find new categories. This is an excellent way of renewing the project and making sure it is constantly offering up to date questions and challenges"

Both of these competitions have been carried out as national projects. As described in the above they have started at local level, moved on to regional level and ended at the national level. Both projects would be able to take place only at local or regional level. There are several examples of school or municipalities where similar projects have been carried out in a smaller scale with the school library and the school librarians as project coordinators. The national level adds a lot to the contest and the students' experience of this, but schools, counties or municipalities which would wish to create projects inspired by these should not be discouraged if they are not able to do so on a national level.

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Parts of the paper is inspired by conversations with Lissy Bech-Petersen, Kirsten Melchiorsen and Susanne Kier.

### *Biographical notes*

Maria Eriksen has been employed with The Municipal Association of School Libraries in Denmark for three years. She is in daily contact with different professionals and officials from municipalities in Denmark. She is also co-editor of and writer for the journal "Børn & Bøger".

## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Library Services for Youth with Autism

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*At least 1 in 166 children are born with Autistic Spectrum Disorder (ASD), but few school libraries provide resources and services explicitly targeting this population. This paper explains the characteristics and educational challenges of children with ASD; and provides ways to create an inclusive library environment that offers a rich variety of resources and services that engage these children. Tips for training library staff relative to ASD are also given.*

*Autism, inclusion, technology*

## Introduction

Autism Spectral Disorder is now the second most common serious developmental disability after mental retardation/intellectual impairment. While autistic children are increasingly mainstreamed into the public school K-12 environment, little curricular attention is paid to meet their needs. Few U. S. libraries have documented instances where children with autism are being served, although a significant need has been identified to create a school library curriculum program plan by adapting existing school resources; concurrently, sensitivity training for library staff needs to be provided. This book focuses on ways that youth-serving librarians can meet the needs of youth (children and teens) with autism through welcoming facilities, inclusive learning activities, informed aid, and targeted training.

## What is Autism Spectrum Disorder?

Autism has been documented as a formal spectrum of disabilities for approximately sixty years. As awareness has grown, the number of children with autism has risen from 5 out of every 10,000 births in early studies to 1 per 150 births today according to Centers for Disease Control and Prevention (2007). Autism Spectrum Disorder (ASD) refers to five pervasive developmental disorders: Autistic Disorder, Rett's Syndrome, Childhood Disintegrative Disorder, Asperger Syndrome, and Pervasive Development Disorder. Sometimes these disorders are categorized as a spectrum continuum disorder because the symptoms can range from mild to extreme. Basically, the sensory system for people with autism differs from others so that these children may react quite unusually to stimuli: people, objects and events.

## Youth with ASD

Because ASD is manifested in so many different ways, it is difficult to ascribe blanket characteristics about these children. Nevertheless, some aspects may be examined with

confidence. Because children may react quite unusually to stimuli, they may exhibit unusual repetitive behaviors, which are their mechanisms for dealing with stimuli. Some children have difficulty controlling their behaviors within a high-stimulus situation; not surprisingly, most children with autism prefer predictable routines and environments. They may have difficulty imagining the perspective of another person. It should be noted that empathy is very present in autistics; it just presents itself differently. These children may seem to prefer to be alone, tending not to express feelings of affection that are easy to interpret; for instance, they may well play side by side rather than interactively, which is their method of socialization. Speech development is usually impaired developmentally, although children with autism may communicate well in other ways such as images or typing. Linking ASD to children's sensory processing is a useful way to describe their behaviors. Another important consideration is the developmental aspects of children of ASD; they are growing individuals first of all. Furthermore, parental belief systems about lifestyles and treatment options can influence how they treat their autistic children – and interact with educational personnel.

## Youth with ASD in Library/Educational Settings

Children with autism encounter challenges in libraries and other educational systems because they have impaired social and communication development. Social situations are very difficult because their social skills do not evolve naturally. Autism also affects children's thought, perception and attention span. Their body language often differs from children without autism, so the two parties may have problems "reading" each other. It should also be noted that people with autism tend to think literally, so metaphors and idioms can present problems. Current educational thought promotes an inclusion/mainstreaming model of education; nevertheless requires special attention is required because ignorance of ways to interact with these populations can result in frustration for all parties. Moreover, children with autism need more than an academic curriculum *per se*; they need socialization and observational skills.

## Inclusion Strategies (Universal Design) in Libraries

Taking the approach of universal design, whereby material and digital resources are made accessible to *all* users including those with special needs, library programs should be accessible to all youth including those with autism. Facilities should include alternative seating and sensitivity to the child's body space so others touch will not affect sensory system or focus. The library door should be closed to eliminate outside noises. Natural lighting should be used since fluorescent lighting upsets some autistic children.

Here are some specific physical accommodations that can help students with ASD feel more comfortable:
- Strip of foam pipe insulation applied to edge of chair gives parameters of security and a closed in feeling.
- Masking tape around area on the floor that child is to sit in for circle time.
- Weighted vest: can be a fishing vest with pebbles if cannot afford to buy weighted vest.
- Weighted arms: Fabric with pockets on both ends to place weighted materials in such as marbles or pebbles wraps around shoulders and upper torso of student providing pressure and closed in feeling to soothe senses.

Because of barriers in library learning activities barriers, the need is underscored for the librarian to collaborate with classroom and daycare teachers and to design inclusive

curriculum-based learning activities that include accommodations explicitly for special populations. Examples of inclusionary practices include: providing a consistent routine for library use and instruction; using singing and rhythm games helps get all children's attention; incorporating visual aids and body movement; giving children transitional signals.

## Resources

One of the core aspects of libraries is the collection, organization, and access to resources. Content needs to build upon individual interests. Because this population engages in different ways to content, identifying and using information in a variety of formats is imperative; visual information is especially fruitful. In addition, resources that build on sensory experiences can lead to more effective engagement. As librarians choose resources, they need to consider the age and development of youth with ASD in order to optimize their engagement and learning.

Technology provides potentially effective resources and communication channels. Computer technology also extends children's attention span. In optimizing technology, librarians need to consider the critical features of technology, including their affective impact. Assistive technology, any device that can assist a person to adapt to a given skill, can help level the learning field of students with ASD. Some specific techniques include:

- Use documents that are literal and repetitive or rhythmic, and that include photos rather than drawings.
- Use a variety of formats: audiocassettes, software, toys, manipulatives.
- Take advantage of picture dictionaries and atlases.
- Enlarge texts and pictures to make them easier to see.
- Use visual rather than auditory stimulation.
- Incorporate Kid Pix and drawing-type software programs; these students are likely to get fixated on a thing or character.
- Use videotapes of a book that replicates the original, and used with the print copy.
- Show video clips that demonstrate positive behaviors in very concrete detail.
- Use software/web tutorials to teach skills; Reader Rabbit is a good example.
- Scaffold learning using technology.

Universal instructional and design principles help not only students with autism but *all* students.

## Teaching/Instruction

Librarians should find out which children have special needs, and gain basic knowledge about ways to create a suitable learning environment for them. Instruction needs to be highly structured. Likewise, transitions between activities need to be transitioned explicitly. Age- and developmentally-appropriate issues also need to be considered. Of great benefit in reaching students with ASD, Pivotal Response Treatment uses both a developmental approach and applied behavior analysis procedures, and aims to provide opportunities for learning with the context of the child's natural environment. Another effective method is ABA (Applied Behavioral Analysis). Appropriate course of action should include curriculum adapted by either resource teachers or Special Day Class teachers.

## Learning Activities

Librarian should encourage youth with ASD to be involved in library experiences alongside their peers, building on their strengths and interests. Scaffolding can help youth

learn appropriate language relationships. For example, asking binary questions (e.g., "Did he eat a cake or a cookie?") and literal discrete questions enable children to develop communication skills. Technology can help learning by providing highly structured learning activities that can be repeated and paced according to individual need, requiring little social interaction. To help ASD youth socialize, librarians should find out which peer or aide is paired the child with autism, and instruct them to sit near the librarian to reduce distractions and anxiety. Age- and developmentally-appropriate issues also need to be considered. Librarians also need to involve NPA (non public agency) aides.

*Sample Library Activities*

The following library activities have been tested successfully with students with ASD.

- Use dolls/puppets. Examples: Little Red Riding Hood doll with red jacket, stuffed wolf animal, and Grandma doll. While telling story, have autistic students arrange tactile items in order. Activity keeps students both on track and focused while fulfilling need to line up items both mentally and physically to increase comprehension.
- Encourage communication and student interaction by asking students which items are bigger, rougher vs. smoother, and color. This gives children choice of answers instead of having to communicate spontaneously, which is much harder especially in groups. It gives children success in large group and amongst peers boosting self esteem, increasing likelihood of further spontaneous academic attempts.
- "Into" activity. Show movie clip of story such as Sponge Bob DVD before reading Sponge Bob book. Students engage in conversation and contact by hearing beginning theme music and seeing characters come to life.
- Have an activity bag with props from the story for autistic student. Have the autistic child sit on the side of the class so as not to distract peers.
- *How Are You Peeling* is a great literal book with pictures and gives conversation opportunities to discuss feelings, which is difficult as it is spontaneous speech. Have a bag of small vegetable with faces. A learning center afterward can have vegetables with Mr. Potato Head mouths and ears that can be stuck into vegetables in order to repeat learned emotions and replicate pictures from text.
- *Autism Acceptance Book* (Ellen Sabin). Educate peers to appropriate levels of defining autism so they can comprehend and be the student's special friend who can be a helper if they need it. Sample activities: Intro for class peers: take sensory empathetic survey (p. 19). Photocopy walk in their shoes (p. 27). Make poster (p. 15). Make class work sheet (p. 14). Define social stories (p. 6).
- Word Walk. Find repeated phrases from book to be used in library. Write each word of that phrase on 8" x 11" paper. Make a paper path from library door to circle time area. Students walk and read the word path giving autistic students opportunity to have tactile decoding comprehensive experience while meeting sensory needs and increasing comprehension.
- Library treasure hunt. Place props from stories in library. Give students a very basic map. They must go to each area in the library find object, and mark off "X" in box by area found. An example is a Halloween Hunt: "Look for the witch and her broom. She flies in corners near the edge of the room." Students then look for a flying witch doll hanging from the ceiling in the corner of the room. Map can include photographs of items being sought after.
- Autistic students excel at decoding words and being lexographic. If an autistic student can read in front of peers, their comprehension will not equal their peers but their

decoding skills will likely excel their peers. Give autistic students opportunities to recast repetitive phrases in book, reading it in front of their peers. This boosts their self-esteem, integrates them socially, and involves them in lesson equally with other students instead of being on the sidelines told to be quiet and sit still, both of which are hard for many autistic students.

- Pair books to tactile items that can relate to objects: Rice table: *Grandfather's Dream* and Indian counting tale; Tinker toys: *The House that Jack Built;* sand table: *Grandma and Me*.
- Learning Stations. Pair students up to explore learning centers together in LMC. A sample interactive activity would be write down name of train (from name on bottom of each train), and draw the same face train does on piece of paper (Thomas trains all have faces that show definite emotions of how the trains are feeling). Group can discuss emotions with classroom teacher later as part of LMC/classroom teacher collaboration.

## *Focus on Hyperlexia*

One focus of library service for this population should be reading, particularly since some students with ASD exhibit hyperlexia, which is a syndrome observed in children who have the precocious ability to read words. These students have significant difficulty understanding and using verbal language or a significant nonverbal learning disability, and they have difficulty in reciprocal interactions; in other words, they have the ability to decode words and text at very advanced levels without the ability to comprehend the meanings of those words that are being decoded.

Librarians need to select books that appeal to autistic children: repetitive/predictable elements, rhyme, familiar sequences, question/answer format, chain or circular story. There are several techniques to make books more accessible: laminating pages, enriching texture, purchasing books with real photos, locating books that are about autistic children, including the autistic student's opinion in library book acquisitions.

Noted how autistics respond to literacy and library skill instruction both in one to one and group instruction, librarian should make use of NPA-trained aides. Librarian need to figure out ways to engage autistic children with choice questions, including the use of technology. Librarians should also understand how to interpret Echolalic Responses to literature and reading stimulus. To optimize learning, teacher librarians should consider using a team approach: of classmates, other school personnel, and families.

## Social Strategies

Probably the most effective way to engage students with ASD is to get to know each child on a personal basis. Librarians also need to get to know other adults who work with this population and parents of youth with ASD. To optimize socialization in school settings, librarians should prepare the following groups to work with students with ASD: the ASD student him/herself, library staff and aides (including students), other students, other teachers/school community members, and the child's and other parents.

## *Sensory Overload Leads to Self-Stimulating Behaviors*

- If the autistic child begins rocking, flapping suddenly or has sudden amount of increased repetitive speech or any other sudden obsessive behaviors, he/she is

experiencing sensory overload. Is it the lights, the clothes, the noise, the proximity of other students, aide or teacher?

- Have the aide take the student away from group temporarily to adjust for the sensory issue. Need sunglasses, sit further away from children, pressure squeeze to body, less noise, etc.
- When giving an autistic child praise, be attuned to volume and proximity.
- If the class is applauding for each other; use a distant golf clap after the ASD student excels instead of class clapping.

*Behavior Modification*

- If the ASD student is in a loop of verbal obsession with an item or phrase, recast the phrase adding pronoun in an interrogative format. Example: Sponge Bob and Patrick have crabby patties in Bikini Bottom. Recast: "Do you eat crabby patties with Patrick and Sponge Bob? I like to eat crabby patties with Patrick and Sponge Bob." Or have the student write the sentence; if unable; the librarian writes the sentence and reads it several times with student. When the librarian shares in their students' obsessive thought, it tends to fulfill the sensory need and they are more able to move forward to their next thought.
- If the ASD child repeatedly asks disruptive questions, such as "Is it time for lunch" while at story time, draw 3 boxes on paper. Tell the student they get to ask the same question 3 times. Put a check in the box each time that they ask. After they have asked 3 times, they are not allowed to ask any more.
- Coping tools for sensory defensiveness. If classroom noise is too overwhelming for student initially, desensitize by taping class noise, and loaning tape to parents to play at home in small infrequent amount, then gradually increasing time periods.
- Visual Schedule. Have a large schedule that hangs on wall behind the librarian. This gives the autistic student clarity and makes transitions easier. Unexpected, unpredictable transitions guarantee poor behavior and tantrums.
  1. Have large photographs of students sitting in circle time listening to story.
  2. Have next picture of students at book/tactile learning centers.
  3. Next picture of students checking out books at circulation desk.
  4. Final picture of students lined up at Library door ready to leave for class.

*Group Dynamics*

- The librarian sets an example by retelling the story. Autistic student then repeats the librarian's story. The librarian asks the autistic student to retell initially just the beginning of story. By the end of school year the goal would be to have autistic student in a minimum of 1 sentence/response be able to recast story in their own words. For example, the librarian asks, "Where did Little Red Riding Hood go in the beginning of the story? Acceptable response is "She went to Grandma's house, or she walked in the woods." Limited unacceptable response: "Away." Encouraging comprehension through recasting or echolalic (echoing) natural tendency is fine. It will make the student feel comfortable enough to eventually expand out to 3-4 word phrase responses.
- When reading stories to students, leave out the last word or key phrase when it is predictable. Let all students fill it in together by repeating predictable phrase as class. This gives students cohesive social experience while allowing the autistic student increased comprehension and doesn't force them to sit without movement or speech.

Sample books with repetitive response: *This is the House that Jack Built*, *King Bidgood's in the Bathtub* (Don Wood), *It Looked Like Spilt Milk* (Charles Shaw), *A Dark, Dark Tale* (Ruth Brown), *The Doorbell Rang* (Pat Hutchins).

*Home Connections*

Family relationships with their ASD children affect library experiences. Librarians can help parents and grandparents provide an effective learning environment, and choose appropriate resource for their children. Families who visit the library together provide opportunities for librarians to observe their interaction and work with them effectively. Teacher librarians, in particular, can suggest effective strategies to help parents improve their children's cognitive and social skills.

## Training

Library staff and the school community at large need training in order to understand the nature of students with autism, and to suggest effective ways to serve this population. Each target group needs to explore different content, and be approached in different ways. Each also needs unique resources. In any case, by becoming more knowledgeable about these children, the entire library staff – as well as student aides and adult volunteers – can provide a safe and appropriately stimulating learning environment for these children and model inclusive social education. Elements of training should include:

● Assess staff's current knowledge and practice.
● Increase staffs' knowledge about Autism Spectrum Disorder and the typical behaviors of children in regards to expected behaviors in the academic environment.
● Provide sample library lessons for inclusion of special needs children from ERIC, such as Mitten Math and Locating Library Books (How to alphabetize).
● Brainstorm accommodations.
● Provide bibliography of library books and other resources that would be of specific interest to students with ASD.
● Have experts on Autism provide staff in-service in PRT Pivotal Response Training (very easy to learn and no cost to implement).

## Measuring the Impact

In order to determine what interventions impact learning, both for youth with ASD as well as their peers, librarians need to be reflective practitioners, using action research to demonstrate their effectiveness. Once librarians determine their objective, they can conduct their action research: determining what to measure and why, identifying appropriate assessment tools, gathering and analyzing data, and acting on their findings.

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## *Biographical Notes*

Dr. Lesley Farmer, Professor at California State University Long Beach, coordinates the Librarianship program. She earned her M.S. in Library Science at the University of North Carolina Chapel Hill, and received her doctorate in Adult Education from Temple University. Dr. Farmer has worked as a teacher-librarian in K-12 school settings as well as in public, special and academic libraries. Dr. Farmer serves as IASL VP for Association Relations, chairs the Education Division of Special Library Association, and participates actively in other professional organizations. A frequent presenter and writer for the profession, Dr. Farmer's most recent books are *Information Literacy Assessment in K12 Settings* (Scarecrow Press, 2007) and *Teen Girls and Technology* (American Library Association, 2008). In 2007 she received a Distinguished Scholarly and Academic Achievement Award from her campus, and was selected as California Library Association Member of the Year. Her research interests include information literacy, collaboration, equity in library services, and educational technology.

## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Using Technology to Prepare World Class School Librarians to Deliver Learning and Literacy

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*The preparation of school librarians for schools in the United States poses challenges significantly different from other library specializations. One difficulty, finding the best method to prepare school librarians, is confounded by the shortage of qualified school librarians. Can a school librarian preparation program using distance independent technologies, effectively prepare world-class school librarians to deliver learning and literacy? The results indicate the goals of the program were met. When compared with other cohorts, the retention rate was significantly lower. The results are discussed and future directions are considered.*

## Introduction

The preparation of school librarians for schools in the United States differs from other library specializations. Unlike librarians who work in colleges or universities, public libraries, or special libraries, school librarians must earn a professional license or credential from a state government agency to practice their profession in public schools. The challenge is finding the best method to prepare school librarians and is confounded by the shortage of qualified school librarians. The situation typically results in the state agency issuing stopgap measures in the form of emergency certificates to school librarian candidates who enroll or are enrolled in a teacher librarian services credential preparation program. The essential question is "can a school librarian preparation program using distance independent technologies, effectively prepare world-class school librarians to deliver learning and literacy?"

The opportunity to explore the answers to the question occurred in early 2007. The San Francisco Public School District (SFUSD) approached the School of Library and Information Science (SLIS) at San José State University (SJSU) after the voters of San Francisco, California passed a funding initiative (Proposition H) to create the Public Education Enrichment Fund (PEEF). The administrative staff of the SFUSD Textbooks and Library Media Services (TLMS) wanted to partner with SLIS to ensure that the staff they recruited for the PEEF initiative would have access to a teacher librarian credential program. SLIS faculty and administration had prior experience in organizing general cohorts and management cohorts, as well as a wealth of proven expertise in delivering instruction using distance education technologies. The credential course of study lent itself easily to the formation of a cohort of school librarians. The cohort was selected by SFUSD for current or future school librarian positions within SFUSD. The students applied to the Masters of Library and Information Science (MLIS) at SLIS. SLIS set a minimum number of students needed to guarantee a cohort and created special sections of classes for the cohort. Instructors were hired and SLIS held a web conference orientation and introduction to the classes for the cohort in San Francisco.

The experiences of the participants are reported in the paper. The benefits realized by both cohort participants and by library and information science educators are examined. The perspectives vary from the administration of SFUSD to the coordination of a school librarian cohort at SLIS to the perspectives of instructors and students in the cohort. The group found the cohort to be successful in achieving the goal. The use of distance technologies removed far more barriers for the students than were created by the technologies. The cohort approach is a good match for the structured required course of study for the school librarian. The retention rates for the school librarian cohort are compared to those of other cohorts. The projected rate of completion is compared to those of other cohorts and the completion rate of non-cohort school librarians. Longer term plans and directions are discussed. The cohort experiences reported indicate the model is easily replicated and is sustainable over time.

## The Challenges of 21st Century School Library Education

Educating school librarians in the new millennium imposes many challenges in a university setting. Transmitting the core knowledge, core values, and philosophy of library and information science, while balancing the need to train library science students in new technologies that will enable them to deliver resources to their school communities, can be difficult. Librarians must master and transfer information literacy and technology skills to students and faculty, as well as support independent learning through individual or cooperative/collaborative research and projects. In the school library setting, technology changes the context of the roles to include the management of information in both physical and digital spaces. Knowledge management is more than an abstract notion but an everyday practice. It truly becomes an information ecology. The ability to search in a digital environment is of equal importance to search skills in a traditional environment for the school librarian. The distance education environment is further impacted by the issues and the relative comfort the school librarian student has with technology.

Knowledge management is an essential part of the job responsibilities of a school librarian..  Knowledge management defined by Sallis and Jones (2002) as cited in Boelens (2007) is "the process of constructively using information and knowledge that is inherent in any organization…in order to enhance its performance, its management, and its operation."  (p.37) Boelens (2007) speaks to the dilemma in her discussion of knowledge management in secondary school libraries.  Schools and school systems today create, accumulate, and are bombarded by information in many forms, from library resources and statistics, to test scores, classroom management systems, digital curriculum information, and student information.  The librarian's role is two-fold in Boelens view. First, managing print, non print, and digital resources housed in different areas within and outside of the school building so that the information can be accessed when needed is one area of responsibility. The second area of responsibility in knowledge management is teaching students and teachers to access information and to use the information to transform the information into knowledge useful to them.  Knowledge management of this type will enhance student and faculty performance and provide a valuable service to the school community. According to Boelens, "the school information specialist is responsible for the acquisition, coordination, and management of the information and knowledge in many forms in the school." (p. 71) While the information comes in many formats, one of the roles of the school librarian will be to guide the faculty and students to relevant information regardless of format. Part of that guidance will come from constant retraining and lifelong learning. School librarians will have to be visible models of the kind of learning and information literacy skills they wish to teach.

Campello and Abreu (2005) suggest that school librarians are part of a new paradigm and "to contribute to the education of information-literate persons, the librarian himself or herself must be an information-literate person and master the skills needed to perform the search process properly." (p.38)  Many of the traditional responsibilities of school librarians cannot disappear, such as instructing students in a classroom setting or working with individuals, and professional development for teachers. However, the librarian's role as manager of a physical space has morphed into managing library spaces in the physical, virtual, and digital realms with the attending challenge of staying current in knowledge of resources available and in information and technology literacy skills. School librarians need to demonstrate the information skills needed for effective searching. Campello and Abreu conducted a study of library science undergraduates based on Kahlthau's (1996) Information Search Process.  The research results from Campello and Abreu suggest that "future librarians are not sufficiently prepared to perform the kind of research tasks for which they will be expected to act as mediators for others in the process of learning from information." (p. 49)

School librarians and teachers are a part of an information ecology in which online information search skills become increasingly important, at a time when sophisticated online search practices are not part of a typical teacher's repertoire of skills (Perrault, 2007).  Minimal information search skill results in underutilization of resources that can enhance classroom and individual instruction.  Ultimately, one of the goals of a school library graduate program is to produce "a library media specialist who has a distinct repertoire of skills, knowledge, and expertise about information-seeking and information literacy." (p.60)

Haythornthwaite, Kazmer, Robins, and Shoemaker (2000) studied distance learning and community development among graduate library science students involved in the Library Education Experimental Program (LEEP) at the University of Illinois at Urbana Champaign through the Graduate School of Library and Information Science (GSLIS). Their research results suggest several factors contribute to creating a successful distance learning community. These include taking time to communicate and create bonding experiences for students during the first few semesters, especially during the first semester of the program, and establishing regular class meeting times. Instructors need to give constant detailed feedback during the first semester and design multiple methods of class interaction within the course content. Ultimately, the researchers felt that the graduate program was a success on two levels. The students mastered the course content and attained a degree in library science, while gaining technological expertise in distance education.

The SJSU cohort began as classroom teachers interested in becoming librarians or as classroom teachers placed in school libraries that had not been formally staffed for years. The cohorts had two immediate needs: to gain enough expertise to manage their assigned library facility or space and to become familiar with library canon, practice, philosophy, and methodology to become full-fledged librarians instead of classroom teachers placed in a library setting. A third need was less immediate, but was also vital. Coming from a school background, these classroom teachers needed a broad knowledge of all types of libraries and librarianship to satisfy the goals of the graduate program, and to benefit from the information ecology that existed in their communities. Knowing about the resources available to them beyond the walls of the school building is a form of knowledge management and gives the students valuable networking and resource opportunities. Working full-time, taking two courses per semester and learning new technologies was daunting for the participants.

## Administration of a Cohort for SFUSD

The staff of SFUSD Textbooks, Libraries, and Media Services (TLMS) contacted SLIS in December 2006 about partnering with SLIS on a proposal to the Institute of Museum and Library Services (IMLS) for a cohort of school librarians. SLIS had written a similar grant in 2005 with a different partner school district, and SFUSD was hoping to replicate the grant. Based on the 2005 experience, the decision was made not to submit a grant because the time was not sufficient to prepare a credible proposal. However, in the discussions it was determined that the need of a proposal to start a cohort at SFUSD did not require a grant, although additional financial support would have been welcome. SFUSD and SLIS began to plan a cohort in January 2007.

The position in which SFUSD found them was unusual. The PEEF monies resulted in 15 new positions. Support for school libraries is uneven through the entire state of California. The number of individuals seeking credentials declined 28.6% from 2002 to 2006. (Clark, Parker, & Suckow, 2008) Given the unlikely prospect of recruiting fully credentialed librarians, the district turned to recruiting from within the district. They advertised for teachers interested in moving into the library. The credential laws allow for a district to issue an emergency credential in impacted areas provided the teacher is enrolled in an approved course of study for the credential. Since the new librarians would be working full-time, an online program was the best option.

SLIS had experience in the past with cohorts, successfully implementing two different models. The first, called QuickStart SLIS, was designed to help a general population of students complete their required course work in their first term and then begin their specialization more quickly. The second, the Executive MLIS, was a better model for the school librarian cohort. The Executive MLIS is designed for individuals already in the library field in management positions, but lacking the MLIS degree. The course work is prescribed by SLIS and the cohort takes all of their course work in the same sequence as a group. The work on the IMLS grant also provided a framework for sequencing courses for the school librarian cohort.

A number of obstacles were overcome in the planning and implementation stage from January to August 2007. An early obstacle was the University schedule. It is typically planned a year in advance. The offerings for fall 2007 were not finalized and the courses for fall, LIBR 200 Information and Society and LIBR 233 School Library Media Centers, were added. Using the Executive MLIS model, a separate web page for scheduling was created for the cohort. Again, using the Executive MLIS model, the students did not have to schedule themselves; SLIS office staff enrolled them in classes. If the cohort did not make the minimum number for enrollment, the courses would have been removed from the fall schedule. Based on experience with a wide variety of online classes, 14 students had been determined as the minimum number for the cohort. SLIS also had to adjust the University application to include the cohort to allow office staff to track applications.

At the same time, SFUSD was screening candidates and helping principals make their hiring decisions for fall. The hiring decisions were complicated by state and district budget approvals for fall plus determining the number of replacements needed for retiring librarians and for resignations. The deadline for fall registration was March 31, 2007 and potential students were not sure if they would be hired. They were reluctant to begin the application process without the guarantee of a school library position. To relieve the application issues, SLIS found a way to extend the deadline for an additional ten days in April. Prospective students had to apply and then present the documents to support their application. In the end, 25 students were able to apply for the cohort. All of them were accepted but the acceptance process for some of them was not complete until late July.

SFUSD meets regularly with all of their librarians, and through these meetings, brochures were distributed and information about the cohort was communicated. In March 2007, one general information meeting was conducted jointly by SFUSD and SLIS. Over 50 people attended the meeting and the number of interested school librarian candidates virtually assured that the cohort would attain the minimum number of students. At the same meeting SFUSD human resources personnel, answered questions about the emergency certificate and a member of the SLIS faculty provided an overview of the program and what the journey would be like for the students. Following the meeting, SFUSD monitored the students' application submissions and a list of applicants and acceptance, was managed by SLIS to insure an accurate student roster for the cohort.

Following the March meeting, SLIS hired instructors for the first two terms of the cohort. Three were part-time faculty and the fourth was a full-time tenured faculty member. The three part-time faculty had not taught for SLIS before. The process of developing the courses for fall

continued through the summer, using the syllabi of existing courses as models.  In the fall one instructor for spring was able to shadow a class through the entire semester to prepare for the class.  The instructors also had to become familiar with the distance education tools, taking the faculty course on technology to be ready for the first day of the term.  None of the faculty teaching the first four classes lived in California and three of them were in the Eastern time zone.

After a summer of preparation and work, the cohort was ready to begin their course work.  On August 20, 2007, SFUSD arranged a meeting for all of the members of the cohort and a representative from SLIS in one of the meeting rooms at the main branch of the San Francisco Public Library.  In the morning they were given an abbreviated version of the new student orientation and were able to ask questions about the cohort and SLIS.  After lunch, the instructors for LIBR 200 and LIBR 233 linked to the meeting using Elluminate, the SLIS web conferencing tool, and introduced themselves and the course work to the class.  Twenty-five students began LIBR 200 and 28 began LIBR 233.   SFUSD had asked for exceptions for students needing the class to complete their credential.

## Online Coursework for the SFUSD Cohort

The MLIS and the Teacher Librarian (TL) Services credential for the SFUSD cohort is a total of 42 credit hours.  The first 36 hours meet the required course work of the specified course of study approved by the Commission on Teacher Credentialing (CTC).   The TL services credential is a second credential.  It is issued by the CTC upon the completion of the course of study to holders of a first credential, either a single subject or multiple subject teaching credential.  Credential candidates also have to pass the CBEST and they must be recommended by an institution of higher education in California offering the TL preparation program.  The members of the cohort all met these requirements.  The cohort will complete their credential coursework first and then complete the MLIS. Students also completed the mandatory New Student Technology Workshop, a self-paced online tutorial.

*Technology Tools*

Online coursework for the SFUSD cohort began in the fall 2007 semester as students enrolled in two introductory classes at SJSU: LIBR 200 (Information and Society) and LIBR 233 (School Library Media Centers). Instructors for these courses included Linda Swarlis and Margaret Lincoln who had both recently been a part of a distant-independent interdisciplinary information science doctoral program at the University of North Texas. In addition to their personal experience with the cohort model, Swarlis and Lincoln were veteran practicing school library media specialists. Both courses are required for the Master's in Library and Information Science (MLIS) degree and the teacher Librarian Services credential.  The LIBR 200 course explores the complex social, economic, historical, and technological developments that influence the impact of information on society and analyzes the mission, values and ethics of information professionals. The LIBR 233 course explores the role of the school library media teacher and the school library media program in the educational community and emphasizes the creation of effective learning environments, involvement in the curriculum and teaching process, as well as philosophies of service and management. The design of the online sections of LIBR 200 and 233 took place throughout the summer months prior to the start of the fall 2007 semester. As new faculty members, Lincoln and Swarlis were able to take a two-week overview course for

teaching online via the Blackboard Content Management System and Elluminate, a collaborative and real-time virtual environment. Not only did this course for new faculty cover the basic technical components of Blackboard and Elluminate, but also the pedagogical issues of online learning were addressed from the perspective of teacher and student. With support from such extremely knowledgeable individuals as Debra Faires, Dale David, Stanley Laufer, and Gina Lee in the SLIS IT Department, an online course site was created. SLIS faculty colleagues Dr. Blanche Woolls and Dr. Celeste Nalwasky, highly respected for their own successful teaching of LIBR 200 and 233, shared valuable suggestions for content integration.

## *Course Design of LIBR 200*

Information and Society is the overview course for the MLIS and the TL Services credential. It was the first of three required foundation courses studied by the cohort. The course is designed to address core competencies of SLIS graduates. The specific competencies include a wide variety of concepts, including the promotion of intellectual freedom, ethics, values and foundational principles of library and information professionals. The course also introduces environments and organizational settings in which library and information professionals practice the social, cultural and economic dimensions of information use. Finally, all students are expected to demonstrate oral and written communication skills necessary for group work, collaborations and professional level presentations. The course is a keystone of the MLIS program and the TL Services credential and is used as a transition point for the evaluation of student fitness in the field of Library and Information Science. It sets the theoretical foundation for the rest of the student's program.

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### *LIBR 200 Course Outcomes and Assessments*

| Outcome | Assessment |
|---|---|
| Know the foundations and structure of the information profession; | All students will participate in a group project that surveys the information professions and report the findings to the class. |
| Locate, evaluate, and utilize scholarly and professional literature; | All students will be required to write critical notes for publications pertinent to library and information science. They will use APA in completing these assignments. |
| Demonstrate in-depth understanding of major issues in library and information science | Students are required to research and write a major paper (worth 30% of their total grade) on a topic relating to information and society. They will use APA in writing all papers in this class. |

*Implementation of LIBR 200*

The course management system, Blackboard, allowed the instructor and the students to participate in the class at times most convenient to them. Students posted answers to the threaded discussion questions using information gleaned from their readings. Students also posted two critical notes in which they critiqued a professional or scholarly article. Class members were expected to respond to the posted critique. Assignments were posted on Blackboard along with relevant course information and additional resources. Students also posted a group assignment to the discussion board on library and information science periodicals and professional associations. A digital drop box was used to submit individual and group assignments including a special populations paper, the major paper, a resume, and a valuing the professional paper.

Elluminate allowed for communication in parallel time (twice a month scheduled Elluminate meeting times) for class presentations, lectures, and question and answer sessions, as well as non-parallel communication for viewing and reviewing missed presentations and lectures. As part of the 200 course requirements, students needed to be evaluated on both written work and oral presentations. Using Elluminate as one form of class communication gave each member of the class two opportunities to present to a large audience through a webcam. For almost all of the students, the webcam was a new technology to master. The SJSU technology staff members were phenomenal in providing support for any class member wishing to practice and scheduled additional sessions to ensure that every student felt comfortable with the technology before their presentations. Each student prepared and presented an individual introduction of a library luminary. Each class member also participated in a group presentation on information professionals and the type of library in which they were employed.

At times, the broad focus of the Information and Society course appeared to be at odds with the pragmatic needs of the cohort and caused some frustration. Examining the world of library and information science through a larger lens proved beneficial in the long run as the cohort members developed a greater understanding and appreciation of different types of libraries and the current issues in library and information science. Through their research, several of the cohort members became aware of resources available to them through area libraries and were able to use those resources in their own library settings

The design, implementation, and evaluation of the LIBR 233 course within the context of the SFUSD Cohort are discussed in the following sections of this paper.

## Course Design of LIBR 233

The preparation for LIBR 233 for the SFUSD cohort required meeting specific instructional objectives and to support SLIS core competencies. The assignments were designed to provide students with practical, job-related learning experiences that would have a positive impact as they began their careers as library media teachers. As summarized in Table 1, the LIBR 233 syllabus explained how course outcomes would be realized and assessed through the completion of specific assignments.

Table 1

*LIBR 233 Course Outcomes and Assessments*

| Outcome | Assessment |
| --- | --- |
| Students will know the principles and practices of managing a school library media center. | a. Students will prepare a promotional brochure, outlining and explaining the library media center program. At a later date during the course, students will present this item to a state legislator or community leader. (Unit 1 and follow-up) |
| | b. Students will identify, locate and collect a sampling of policies and procedures used in the management of a school library media center (such as a materials selection policy) and will customize one policy or procedure to reflect practice in their own school library media center. (Unit 2) |

| Outcome | Assessment |
| --- | --- |
| Students will be able to locate, evaluate, and utilize scholarly and professional literature. | a. Students will search for, locate, read and critically review articles in publications pertinent to library and information science. (Units 2-7) |
| | b. Students will report on and share more informal posts found in blogs and other Web 2.0 applications as pertinent to library and information science. (Units 2-7) |
| | c. Students will evaluate and submit a recommendation for a new technology tool. (Units 3) |
| Students will exhibit effective oral and written communication skills in collaborative projects. | a. Students will plan a project promoting recreational reading and will present this project idea to colleagues in a staff meeting. (Unit 4) |
| | b. Students will work jointly to prepare and submit a grant proposal for funding a library project  (Unit 5) |
| Students will demonstrate an understanding of how to integrate technology applications into information management. | a. Students will work with a teacher colleague to modify a lesson plan so as to incorporate library media center resources and reinforce information literacy skills. (Unit 6) |
| | b. Students will design a Library Web portal giving access to the media center's real and virtual presence. (Unit 7) |

*Implementation of LIBR 233*

Following the August 20, 2007 web conference orientation session for students and instructors, the LIBR 233 Blackboard site was officially launched and coursework began. The students quickly became comfortable navigating the components of Blackboard. Emphasis was placed on communicating the details of project-based work, as recommended by Pribesh, Dickinson, and Bucher (2006) in a study comparing online and face-to-face cohorts in a school library media specialist graduate program.

Students regularly checked the Announcement section of Blackboard (Figure 1). Students then proceeded to the Course Documents section (Figure 2) where color-coded folders grouped PowerPoint presentations, links to recorded Elluminate sessions, assignments, and related handouts needed for each of LIBR 233's units. Figure 3 provides an example of the contents of the Unit 1 folder.



*Figure 1*. Blackboard Announcement directing students to Course Documents.

*Figure 2*. Course Documents folders (color-coded) for units.



*Figure 3*. Unit 1 Course Documents folder contents.

As a unit was completed and as assignments were uploaded to Blackboard, exemplary work by LIBR 233 students was shared through the Cohort Projects section of the course site. Figure 4 displays a sample school library media center brochure created for a Unit 1 assignment.
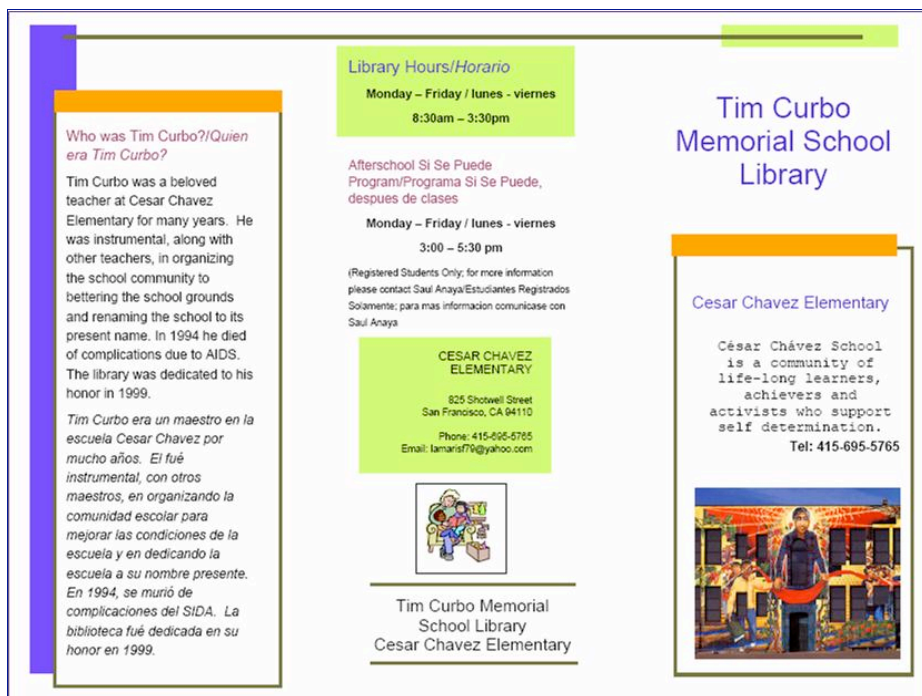


*Figure 4*. Sample SLMC brochure displayed in Cohort Projects section of Blackboard.

Throughout the semester, an ongoing assignment involved reading and reviewing journal articles related to each unit. Groups, with four to five students each, shared professional and peer-reviewed articles on the Discussion Board section of Blackboard. The groups were responsible for leading the conversation about these articles and relating the articles to the main topic of each unit. When a student was not assigned the role of moderator, he/she was still expected to participate in the discussion of articles for the unit by posting comments to Blackboard. Although the exchange of comments was asynchronous, the discussion exhibited such characteristics as frequency, intensity and topicality as reported on in a 2007 study by Burnett, Bonnici, Miksa, and Kim (2007).

The use of real-time virtual meetings on Elluminate provided another dimension to course activities. In addition to instructor-led sessions designed to clarify course content expectations and to respond to questions about assignments, guest lecturers participated using Elluminate. For example, expanding upon the topic of Unit 3: Enhancing Learning Through Technology, Dr. Michael Stephens (blog creator of Tame the Web and an assistant professor at Dominican University) gave a presentation on Web 2.0 tools. Rob Darrow, coordinator of Instructional Resources and Library Services in California's Clovis Unified School District and a Big6™ trainer, delivered an Elluminate session in conjunction with the Information Literacy unit. Dr. Joyce Valenza presented the topic of virtual libraries. Recordings were made of all Elluminate meetings so that students unable to participate in real-time could still access the

archived session. Figure 5 shows how this session utilized Elluminate's interactive polling feature.
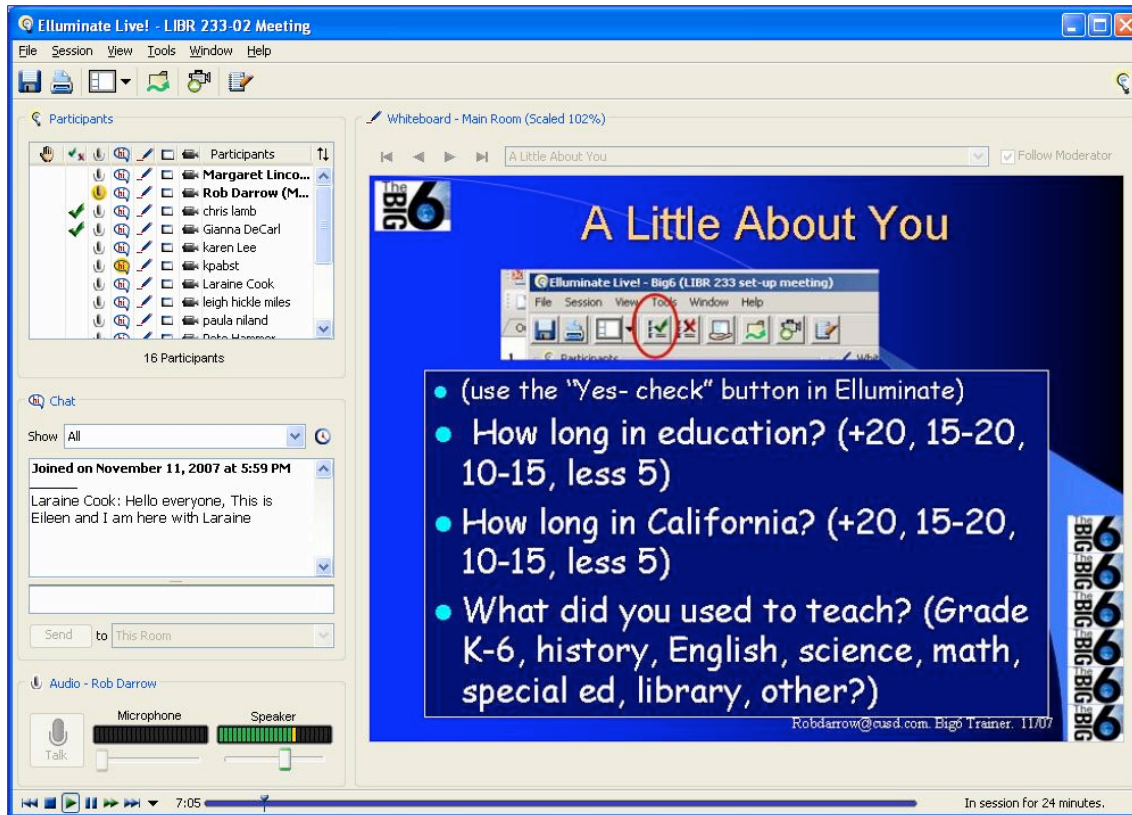


*Figure 5*. Elluminate session with guest presenter Rob Darrow.

### Discussion of the Cohort

As the authors prepared this paper, they found themselves reflecting on the cohort approach and the coursework. In the discussion, the assessment, costs, retention, and future directions for research are highlighted. Accrediting agencies are concerned about the fitness or disposition of the credential candidate for the profession. The discussion of evaluation reviews and the assessment tools apply only to the credential and not to the larger issues of a MLIS. Costs are discussed from the perspective of the internal impacts on the organizations and what the students faced in their personal lives. Retention is focused on the transition from the first term to the second and it is compared to other cohorts conducted by SLIS. The authors' thoughts on future areas of research expand upon these topics.

### *Course Evaluations*

Course evaluation of LIBR 233 was accomplished through several means. A Part-Time Faculty Peer Review was conducted, providing recommendations and feedback for instructor Margaret Lincoln. In so far as a Blackboard course site remains accessible to SJSU faculty at the conclusion of a semester, modifications and improvements can thus be made to a course based upon the Peer Review. Similarly, comments received from students through their completion of

the Student Opinion of Teaching Effectiveness Survey (SOTES) can be helpful as course content and methodology are updated. Overall, both LIBR 200 and LIBR 233 were positively evaluated. A representative comment from the SOTES instrument is given below:

> *Each assignment was applicable and useful to our everyday practice, with clearly defined expectations and was laid out with incredible organization in the online environment. Much time and effort was put into lifting us new librarians into an elevated realm of librarianship. All this was done with enthusiasm, understanding and respect for each of us as individuals.*

In addition to the above methods of formal evaluation, anecdotal evidence of favorable outcomes associated with SFUSD coursework can be mentioned. Several grant proposals written by students as part of an LIBR 233 assignment were actually submitted to potential funding sources and approved. For example, an attempt to secure funds for a book club for low literacy high school students was successful as was a proposal to automate an elementary library media center.

Another assignment with real-world applicability required students to meet with a legislator or community leader. This assignment supported the recommendation put forth by Moreillon and Misakian (2007) to integrate opportunities for advocacy learning into library school coursework. As a result of issues raised during one such meeting with a San Francisco Supervisor, a hearing on the status of SFUSD libraries was held in February 2008. Cohort members and SFUSD library administrative personnel provided testimony about the outstanding work being accomplished by school library media teachers in the newly resurrected positions funded by Proposition H.

*Retention*

A surprising finding about the school library cohort is the comparison of students who are retained in the cohort from the first term to the second. The experience of SLIS has been that the largest amounts of students make their decision to stay with the cohort at the point where they are registered for their second term of courses. The cohort of school librarians had a much lower retention rate than other cohorts from the SLIS experience (Figure 6). There are three possible factors impacting this variance in retention. One would be the structure of the emergency credential process. There is no incentive to the credential candidate to move quickly through the program. Only six credits are needed each year to keep the emergency credential in force plus it can be renewed annually up to five times. A second factor is the rigor of the MLIS. Students who left, indicated anecdotally they were having difficulty balancing their lives. A third factor is working a new position with no experience in the new environment.

| Cohort | # of Students Beginning of 1st Term | # of Students Beginning of 2nd Term | Drops | Retention % |
|--------|--------|--------|--------|--------|
| QS 1 | 45 | 43 | 2 | 95.5 % |
| QS 2 | 36 | 34 | 2 | 91.9 % |
| QS 3 | 29 | 26 | 3 | 89.6 % |
| EX 1 | 12 | 12 | 0 | 100% |
| TL 1 | 27 | 17 | 10 | 69.3 % |

*Figure 6* Comparison of cohort retention from first term to second term

## *Costs*

The financial costs of participating in the cohort divided the students into two groups. One group, those who stayed with the cohort, wants to maximize their investment and want to take the maximum number of courses possible. The second group, those who left, does not see a large problem with the cost of paying for one class when they could take two for the same fee. SLIS monitors the relative cost of the program both nationally and in California. The fees are consistently the least expensive in both comparisons.

The hidden costs are not clear but appear to be substantial. In reflecting and reviewing the process by which the cohort was put together, the number of people who had to be involved was surprising. At one point individuals from the University Information Technology staff had to make changes in the programming of the application process to accommodate the cohort. No effort was taken to quantify the time and efforts of staff related to the cohort outside of their normal routine. It needs to be quantified and examined. One reason the appearance of a substantial administrative cost associated with the cohort was the short time frame the cohort was planned and implemented. It created emergency situations instead of planned work for staff.

## *Future research*

One area not examined was the satisfaction of the students and the faculty. The students evaluated their instructors as part of the University's standard course evaluation practices. These are general in nature and do not look for the specific aspects and issues of concern to a cohort. The satisfaction of faculty and staff has to be considered also and the various cohorts should be compared to each other.

A second area of research would be finding the costs of the cohort and comparing it to the standard method of offering courses to students. Anecdotally, staff members indicated that it took more effort to create and maintain a cohort. The costs and benefits have to be quantified and examined.

A more thorough examination of retention is needed. The large variance and a possible explanation of the variance need to be tested and evaluated.

**Conclusion**

Despite the precarious state of money available for education, the SFUSD library positions should remain intact through 2012. In the meantime, members of the SFUSD Cohort continue with SLIS coursework, in pursuit of the MLIS degree and the Teacher Librarian Services Credential, while supporting meaningful teaching and learning in San Francisco Public Schools.

A credential program is easily adapted to a cohort model and  the cohort model does allow for proactive resource planning for University administrators.  University administrators can schedule instructors several terms in advance to teach the required course work.  This cohort model may not be the best match for the current manner in which the state of California issues credentials. Emergency credentials be granted to students working in schools.  The building principal is the de facto evaluator of the fitness of a candidate for the library profession, and does not require the approval through the library program. The low bar to get and maintain the emergency credential is a disincentive for candidates to move quickly through a preparation program.  If district administrators want to move more quickly to have a faculty that complies with credentialing law, they are at a disadvantage.

The cohort model has moved the SFUSD group forward on their credential work and the MLIS degree.  The citizens of San Francisco can feel their money is being spent wisely to open closed libraries in their public schools.  It is a welcome trend in a state where the school libraries rank near the bottom of the list when compared to other states. Technology played a significant role in the first steps   to prepare world-class school librarians to deliver learning and literacy to their students.

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## Statement of Originality

This is to certify that the paper above is based upon original research undertaken by the authors and that the paper was conceived and written by the authors alone and has not been published elsewhere. All information and ideas from others is referenced.

# Morning reading for the whole school

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*When the students enter the class room at 8 am. they begin their day with half an hour of silence. Silence in the good, intense way, which signals immersion, practice and contentment. 30 minutes of reading every morning at the start of the school day has meant a great improvement of the reading development amongst Danish students. The outcome is competent and fast readers. Further more the children and young adults maintain their joy of reading and the problem with book droppers is countered. Morning reading is a help to all students: the talented, the weak and the immigrants.*

## Morning reading creates better readers

All students must learn how to read. Reading is the road to experiences, knowledge and education. Reading is also an important element in most subjects in school, and when you need to strengthen the professional knowledge it is crucial to have good reading abilities.

The Danish government has set the goal that 85 percent of every year group must have educated them selves to college level in 2010. Before 2015 this number must have reached 95 percent. This is a very ambitious goal and if it is to be reached, it is necessary to heighten the reading ability of the students in a number of areas. Making more students able to break the reading code is the basis of securing all young adults a qualified education in a global world.

The PISA (Programme for International Student Assessment) investigation made by OECD in 2000 and 2003 showed that Denmark was below the average OECD score in reading (number 16 out of 30 countries). Especially children of immigrants scored low on the test. This was very unsatisfying for the Danish school as an institution and a number of projects were initiated. These projects included:

1. Mandatory language screening

2. Inclusion of stage and end goals in all subjects in the evaluation of the students benefit of the education

3. Mandatory test

4. Written notification to all parents

In the PISA investigation of 2006 Denmark had progressed, but there is still work to be done to reach a satisfying result.

One of the challenges we are struggling with is that 16 percent of the young adults in Denmark leave the educational system without a functional reading competence efficient enough for them to be able to finish a higher education.

This figure shows the Scandinavian countries. As always Finland scored very high, while Sweden, Denmark, Norway and Iceland scored medium.
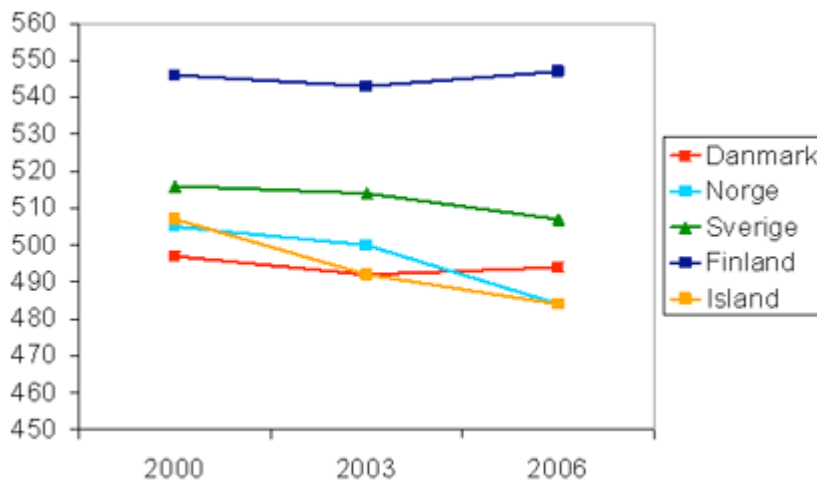


The figure below shows the results for reading in the 30 OECD countries.
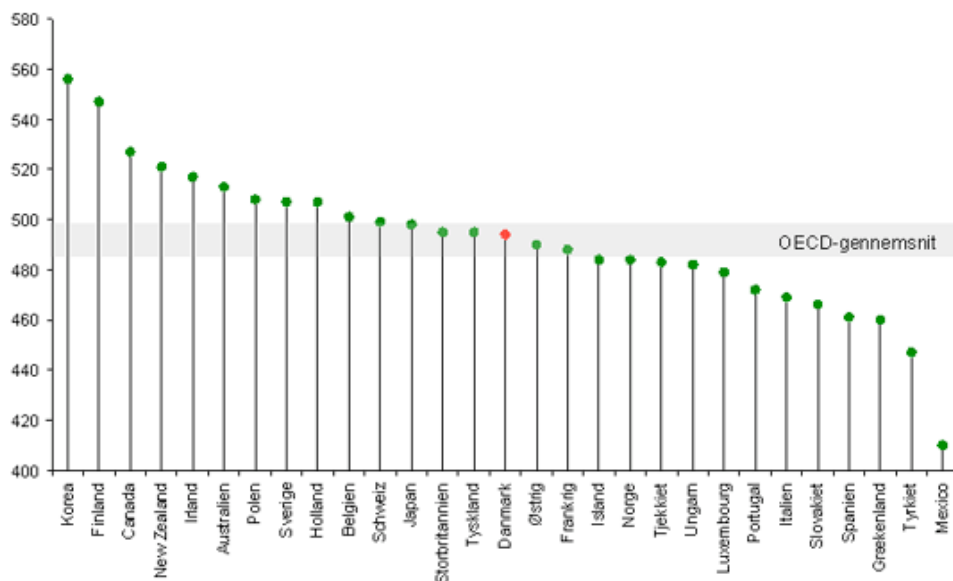


All Danish schools work intensively with reading abilities to counter this, because without good readers the goal will not be reached.

In the schools school leaders work with a number of professionals and the school board to solve the task of achieving good reading results in the individual school.

The important points are:

- talented teachers: they should have professional and pedagogical competencies

- a joint focus on reading in all schools in Denmark

- that school leaders help to provide the necessary teaching resources for teachers and students

- a close cooperation with parents about learning how to read

- that teachers and schools share their knowledge with each other and that they inspire and learn form one another

Teachers and school leaders throughout the country have great experiences and examples of best practice as to which methods works and new approaches to how different challenges in the schools can be overcome. The knowledge of how to engage and motivate the students can be found amongst the teachers and school leaders, along with ideas of how to target the work of heightening the educational level and social skills of the individual student.

Best practice and good examples are important resources as it is in the schools and municipalities development, improvement and learning takes place. With the communication of best practice the development in the school is strengthened. There is no final solution on how to improve the quality of the school. Even if high quality is defined as a high professional level it is hard to settle for one solution. A number of factors influence the quality of a single school. This is one of the reasons why it is so hard to document what gives good results in a school, and this makes it even more important to spread best practice and good examples, which are discovered or identified on the schools.

A number of initiatives have been carried out in all Danish schools to improve the process of learning to read. Many interesting ideas will have impact on whether Danish students leave the school as secure and fast readers over the next few years. One of the initiatives that have cause both much attention and good results is morning reading. The idea is that time for reading practice is necessary and that all students must read every day when they get to school and the school day begins.

There is no recipe on how morning reading should be carried out. The schools which choose to use this idea do it in each their separate way to make it compatible with the individual school and conditions.

To become a steady and fast reader you have to read many pages every year. The reading practice must be continuous and the books the students read must be suitable for their level and interests. It is important that the students feel that they become more secure and faster when reading.

All schools which have started a morning reading program report better readers, greater joy of reading and a quieter environment in the school. When the students get to school at 8.00 am, they begin every day with half an hour of silence. Silence in the good intense way, which signals immersion, practice and contentment. All students are in their classrooms with their teacher present. And then they read. In all classrooms, at the same time, after the same recipe every day just added a little spice, but recognizable so the students feel confident with it.

*Examples*

The schools which work with the morning reading programs wish to make an extra effort in the field of reading to promote the students' desire to read. The following examples will show some of the different ways to conduct a morning reading programme and the results of these efforts. In all cases the schools are regular Danish public schools.

Skelund Skole:

The day starts with what seems to be a game of "Dead Donkey" at Skelund Skole. If you visit the small school at five minutes after eight in the morning, you will experience nothing but silence. In all classrooms and common areas the 129 students are sitting quietly. But it is not a regular game of "Dead Donkey" these students are playing. They are all engaged in reading. Five years ago Skelund Skole chose to focus on the reading competencies of the students. Ever since then the first 30 minutes of every day has been devoted to the quiet world of the books. The youngest students who are not yet able to read will have a book read aloud to them.

School leader John Veggerby says that the students are very motivated for morning reading and that they understand why this is a good idea. 'There are 200 school days in a year, and if the students read 30 minutes every morning it becomes 100 hours of reading practice in a year. It is just like football: the more you practice, the better you get' John Veggerby says.

The extra effort in reading has paid of at Skelund Skole. 'In 1998 we had 17 percent steady and fast readers in the second grade. This school year we have 53 percent, which is more than half' states John Veggerby. The same records show that the school had 44 percent insecure readers in 1998 in the second grade. That number has now been reduced to 13 percent. The students who are experiencing a hard time getting the words to make sense are given help. The school has a computer which scans the text and reads it aloud. The student follows the text on the screen. 'Our efforts in improving the reading abilities of the students show that we are able to lift this task, and we plan to keep developing. We are very happy with our reading developments' says John Veggerby.

The students appreciate this quiet time every morning. President of the student council Simon Kristoffersen from sixth grade says: 'I think it is more exciting to sit alone with your book than having it read aloud. I read horror stories, they are really good. The books have to be exciting.' Three girls in the sixth grade state that the 30 minutes of reading is a nice and relaxing time. Time flies by when they read. School leader John Veggerby gets the last word: 'The reading time is a good start to the day. It creates tranquillity and turns the awareness of the students towards the rest of the school day'.

Østre Skole:

Students have to read a lot to become good readers. Østre Skole has introduced three hours of extra reading every week in fourth, fifth and sixth grade.

To become a skilled reader you have to read 2000 pages. Research has shown that most Danish students barely read 900 pages throughout their school time. To counter this disproportion students in the fourth to sixth grade in Østre Skole now have morning reading

on their schedule. Three mornings a week the students read for 45 minutes. Not till after this is done does their "normal" school day start.

'The students themselves have established the rules for the morning reading programme. Two pedagogues and a school librarian supervise and aid the students in the six classes, but the classrooms are completely silent. This form of group education frees up resources for the teachers', states school leader Carl-Aage Lykke Laustrup.

But it is not enough to invest time in the reading project. When 180 students read three hours every week there is a great need for books, which is why the school board has set aside 100.000 DKK (app. 50.000 USD) for the purchase of books for the project. It can be books about horses, cars or Harry Potter. It does not matter what the students read as long as it has their interest. But the reading must not only take place at school. The students should also get good reading habits at home. Twenty minutes of reading has become a routine in many homes.

'Choose a good book, take it home and read 20 minutes every day while the potatoes are boiling. When we can come to this kind of agreement with students and their parents, the reading abilities of the students are strengthened', says the school leader.

Broskolen:

Morning reading makes the students remarkably better readers. A great story from the public school: 20 minutes of reading every day has improved the proficiency of reading remarkably for students in Broskolen in Slagelse municipality. Morning reading is part of the regular school day for students from kindergarten till sixth grade. The project was initiated to improve the proficiency in reading for students of the school and there by comply with the continuous challenge the school experienced with students reading abilities.

In all simplicity the idea of the project is that the students read 20 minutes every morning, when they start their school day. For kindergarten students the morning reading consists of the teacher reading a story aloud to them, while the reading for the older students becomes more and more education orientated. After two years of morning reading the school management concludes that the project has caused a great improvement of the reading proficiency of the students.

'Besides from the fact that the project has improved the reading ability of our students, it has caused a more quiet start to the day for both teachers and students, as the kids are aware that this is how the day begins at our school. They know exactly what is going to happen. This gives peace and tranquillity', says school leader Marianne Stentebjerg, who was inspired to this project by a Swedish research project, which showed that reading at the same time every day gave the best results. 'The project has also shown that we use our resources better now because 20 minutes of reading in the morning is far more efficient than 45 minutes in the afternoon', the school leader continues. For students with reading difficulties the morning reading is used to give them special education, and for students who do not have Danish as their first language the time is used on language education. The project has been extra beneficial for these two groups, as it provides an additional opportunity to read.

Besides from the requirements of evaluation and teaching differentiation to the public schools, there is a raising demand to evaluate and document in the form of the imposition of national tests and student plans. The school uses class reading tests as a tool and a part of the pedagogical evaluation, which makes it possible for the teachers to plan the teaching from the qualifications and potentials of the students. The class reading tests contain a result estimation, which shows how the class and the individual student have achieved the results which have been set for them.

The teachers use this insight in the way of reading and reading developments of the students to provide qualified teaching, and the students on their part also need the insight in their own development and achievement. The class reading tests should not stand alone but be supplemented by evaluation of the students ability to read aloud.

The charts provided below show the results of class reading tests from Broskolen compared to the national results:

1st grade, May 2007

|  | Steady and fast | Steady and slow | Insecure |
| --- | --- | --- | --- |
| National average 2003 | 56 % | 19 % | 25 % |
| Broskolen 2007 | 60 % | 24 % | 16 % |

The result shows that the school is placed well over the national average in the first grade

2nd grade, May 2007

|  | Steady and fast t | Steady and slow | Insecure |
| --- | --- | --- | --- |
| National average 2003 | 62 % | 21 % | 17 % |
| Broskolen 2007 | 70 % | 16 % | 14 % |

The result shows that the school is placed well over the national average in the second grade

3rd grade, May 2007

|  | Steady and fast | Steady and slow | Insecure |
| --- | --- | --- | --- |
| National average 2003 | 72 % | 18 % | 10 % |
| Broskolen 2007 | 62 % | 16 % | 22 % |

The result shows that the school is placed under the national average in the third grade

4<sup>th</sup> grade, May2007

|  | Steady and fast | Steady and slow | Insecure |
|---|---|---|---|
| National average 2003 | 70 % | 16 % | 14 % |
| Broskolen 2007 | 48 % | 35 % | 17 % |

The result shows that the school is placed under the national average in the fourth grade


Two years ago Broskolen started doing morning reading and it looks like especially the students in the first and second grade are benefiting from the project, as their test scores are very good compared to the national average. Leading reading scientists stress the importance of focusing on early acquiring of reading skills. It is a great advantage if the students learn to read early in their lives. It is a positive contribution to not only their future reading skills, but also to their acquisition of other subjects and their personal development. Therefore all schools should make an effort to make as many students as possible steady readers very early in their school time.

All students, or almost all students, can learn to read before they finish the ten years of mandatory school, but this depends on a strong emphasis on prevention of reading problems through an early identification of and effort towards the risk group. Further more it is important with a continuous support for the, in the long run relatively few, students who will have problems reading throughout their school years.

Broskolen has developed a number of recommendations to support the teachers in their work with teaching the students to read:

- Hosting of parent meetings where parents of small children are invited to an orientation of children's reading development, and how the parents can make an early effort to support this.

- Hosting of "hand over" meetings between the school and preschools.

- Linguistic screening in preschool carried out by the schools own speech therapist.

- Development of goals and plans of action for reading.

- Continuous orientation at parent meetings at the school about reading and how the parents can support the reading development of their child.

- Hosting of class reading conferences from kindergarten to fourth grade with participation of the school leader, the Danish teacher, a test teacher, a reading coach and a psychologist.

- Increased collaboration between the normal education unit and the special education unit.

- Focus on reading and possible compensatory education possibilities.

- Increased collaboration between the school library and the special education centre for example in the work with compensatory IT.

- Focus on the fact that development of students reading abilities is the responsibility of all teachers.

- Systematic work with reading understanding strategies.

- Give time and room for daily reading.

Reading is not a skill that is learned once and for all, but an ability which must be maintained and used throughout a lifetime. It is not enough to be able to decode a text; the text must also be understood. Reading education is not solely a responsibility of the Danish teachers, but a common responsibility of all teachers. For this reason it is important to have focus on all grades in the school. The students must learn to read in many different ways depending on the goal of the reading.

It is also important to not only focus on the weak readers, but to create a challenging environment for the good readers too. Reading abilities are developed in the interaction between individual competencies, motivation, the use of reading in the everyday life and the teaching each child is met with. It is a joint challenge to strengthen the reading abilities of children and young adults through a continuous effort on all levels. Of course the most important players in life of the students are their parents, and it is very important to engage them in cooperation about the reading development of their child. It is a shared matter and a joint responsibility to give the students good reading experiences and through these to stimulate their desire to read and their joy in reading.

Nørre Felding Skole

In Nørre Felding Skole they are also excited about students reading for 30 minutes every day. The students themselves decide where they want to be while they read: on their chair, in the windowsill, lying in the relaxing corner of the class room or with their best friend in the other class. They clearly enjoy this time to lose themselves in the great books and there is no reluctance.

It is not just leisure time reading being read in this time, it might as well be a novel the whole class is reading for a subject. The students can read aloud to each other in pairs, short fairytales can be written into lines known as reading theatre and they practice reading speed with stop watch and counting of words.

Special for this school is that the students find the LIX number appropriate for their current reading level, combined with reading speed and understanding at a very high level. LIX is short for readability index. It is a scale for determining the readability of a specific text. It is calculated by the average number of words pr. sentence plus the percentage of long words - words of more than six letters. The higher the LIX number, the harder the text. There is a formula to calculate the LIX and a scale with categories for LIX numbers. In theory LIX starts at 1. Most books for children, who are just starting to read themselves have a LIX of 3,5 to 4. The categorized scale of LIX ends at 55 and above, which is categorized as very hard scientific literature on an academic level.

All fiction in the school library is arranged by LIX number and the students quickly learn to find the LIX number in their own private books, which they are allowed to bring to morning reading. The teacher conducts tests during the morning reading sessions, where the students can be tested individually because the rest of the class is reading on their own.

In the school library all literature for younger children is marked with LIX numbers, and this has completely turn the arrangement of the books upside down. All fiction is listed by LIX number from 1 to 29. The students do not search for books by title or subject but by LIX number. This is clearly a library technical challenge, but the students are very self-reliant; they know their own proficiency and read books that are appropriate for their level and which pushes them in the right direction. The only down side experienced by the school librarian is that the students are a little hard to introduce to the rest of the library, including the non-fiction. This makes it very important to also LIX mark the non-fiction.

By working with morning reading the teachers hope to be able to stimulate the desire to read in the students and avoid book droppers. A very interesting point is that especially the weaker students profit from this project. It is not testing witch makes a good reader. You learn to read by reading, and this is a great help to the students who are not given much help in reading at home. They are becoming noticeable better readers.

Strandgårdskolen

A targeted effort in Ishøj Municipality's day nurseries, pre-schools and schools through the last couple of years is now paying of: The most recent test scores show that the municipality's students in the first and second grade are better readers than the national average. This is a remarkable development compared with the last test three years ago, where the youngest students in Ishøj were not as skilled readers as the national average of their age group. The reason for the good results is that Ishøj Municipality through a number of years has worked specifically with the language in day nurseries, pre-schools and public schools.

The new test result from 2006 shows that 69 percent of all first grade students in the municipality are steady and fast readers. To comparison only 56 percent of all first grade students achieved this in the national average. In second grade 67 percent of the students are steady and fast readers for their age group, while only 62 percent of the national average achieves this result. This means that the municipality has approximately 20 percent more steady and fast readers in the youngest grades then just three years previous. The good results are created by an extensive language testing of all children when they are two and a half years old and when they are five and a half years old to assess their linguistic development.

For three years all students from kindergarten to ninth grade in Strandgårdskolen have had reading time for 20 minutes every day. The teachers of the school work by a detailed reading plan, which secures coherence and development in the students reading process. The school is situated in an area with a great number of immigrants, which has increased the schools attention towards a successful reading process for the students. Each grade has the freedom to place the reading time as they want in the schedule of the day. This can work to ensure that all subjects are used for reading time and not only the Danish lessons.

Even though the children in kindergarten can not read they all sit with their own book. It is very often a picture book, maybe a book they already know, and which they can retell to

them selves by memory – a kind of pretend reading. Typically the small children start out with five minutes of reading time, then 7 minutes, 10 minutes and within a couple of months they also sit for 20 minutes concentrating about "reading". Weaker students in the first and second grade can be aided with audio books.

The teacher is role model in this project and he or she also sits and reads for 20 minutes. Everyone reads and the whole school is silent.

In the oldest grades it can be necessary to offer the students a little more untraditional reading materials such as magazines, papers and journals. This is fully acceptable, because the most important thing is to keep the students' desire to read intact.

For the school there is no doubt that it pays off to use the teaching time in this way. 'We have introduced reading time in all grades because the reading skills of the students were not high enough. Many students tell us that the reading time has caused them to read much more, at school as well as at home. And the results of the investigation speak for them selves: The number of younger students who have become steady and fast readers have increased by almost 40 percent within three years', says school leader Birgit Andersen.

Morning reading is a great success in Denmark and the prevalence of the idea grows for every year. Some schools have started combining the 20 minutes of reading with 20 minutes of exercise every morning. But that is a whole different matter…

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## Author notes

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

**Title: Student Perception of Self as a Learner**
**Subtitle: Did the Learning Quest Make a Difference?**

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*This paper and presentation is vitally relevant to teacher librarians' professional practice. It assumes the teacher librarian is the learning and resource specialist with the ability to get the Library curriculum, and the best practices for teaching information literacy skills, integrated into a whole year level program. This paper investigates if that practice has an impact on student perception of themselves as learners. The Learning Induction Program was introduced in 2007 to ease transition from primary to secondary school and establish year seven students as effective members and learners in the secondary school context. The library curriculum was embedded in The Learning Quest. In 2007 evaluation focussed on the success of the whole program. Now we need to find out if The Learning Quest, and the collaboration between teachers and Library, has made a difference to student learning outcomes, in particular student perception of self as a learner.*

*Transition, collaboration, student self-perception*

## Context and Development of the Learning Quest

*Context*

The transition from primary to secondary school is a vital time. We need to establish our Year 7 students as effective learners and members of our school community. Too often students are plunged into a new structure with library, ICT and information skills taught in isolation.

Victoria's recently reformed curriculum, The Victorian Essential Learning Standards (VELS), promotes an integrated curriculum. VELS identified the "essential learning" as:

- Core Knowledge – the Disciplines
- Interdisciplinary Skills – including: communication, information and ICT and thinking skills
- Personal and Social Skills – including: civics and citizenship, organization, personal and team skills.

The school library has taken the initiative to work collaboratively with teachers and specialist staff to develop, implement and evaluate the Year 7 Learning Induction Program,

LIP. Integral to the program was getting the Library curriculum, in the form of the Learning Quest, integrated and taught by teaching staff, not in isolation as an add on.

The 2007 evaluation for the whole program (student and teacher) was positive in relation to transition to secondary school, Geoghegan (2007).

*The Learning Quest*

Incorporating Kuhlthau and Todd's (2007) Guided Enquiry principles, the quest is designed to establish students as a successful learner in the secondary school context. In pairs, students complete: library resources and services orientation, information collection activities and tasks, resource evaluation tasks and information literacy skills building tasks. They experience interactive online sites to discover their learning style, Emotional Intelligence exercises and homework, study and revision activities. The quest is set as tasks for: Library, Learning and Research. (See Appendix 1)

The 2007 Learning Quest was modified, in response to the LIP Team, and teacher evaluation. Late 2007, our school participated in a joint school curriculum day at which a member of the Victorian Police spoke about cyber safety. We included online cyber safety activities. The resource set of tasks was scrapped as the 2007 classes ran out of time and did not complete them. The evaluating internet sites for authority aspect of that section was integrated into the Research set of activities. We included a create a 'Fabulous Facts Postcard', a research activity, which aimed to put into practice the skills we aimed to improve in the Research set of activities. Students were to decide a topic, generate questions using Blooom's Taxonomy, use two internet sites, record notes on a data chart, blend the information and use ICT to create a postcard.

The 2007 evaluation was of the entire Learning Induction Program and had only one question directly related to the Learning Quest.

Now we need to find out if The Learning Quest had made a difference to student learning outcomes, in particular, their perception of themselves as learners. Combes' (2007) paper, The search for information and the Net Generation, presented at The 2007 IASL conference, explored student confidence at using the Internet for learning. Todd and Kuhlthau's (2007) Student Learning Through Ohio School Libraries study asked students to rank how helpful the school library was in relation to their learning. A similar study, conducted for the Australian Council for Educational Research, was reported by Lonsdale (2003). She concluded the following relevant points:

- A strong library program that is adequately staffed, resourced and funded can lead to higher student achievement regardless of the socioeconomic or educational levels of the adults in the community;
- Collaborative relationships between classroom teachers and school librarians have a significant impact on learning, particularly in relation to the planning of instructional units, resource collection development, and the provision of professional development for teachers;
- Integrating information literacy into the curriculum can improve students' mastery of both content and information seeking skills;
- Libraries can make a positive difference to students' self-esteem, confidence, independence and sense of responsibility in regard to their own learning.

The latter studies both showed Libraries made a difference. This study aimed to discover if the activities in The Learning Quest improved student perception of their level of confidence in relation to the knowledge and skills we had aimed to embed in the activities.

## Method

To find out if student perception of their confidence had improved students were surveyed before and after the program. Victorian grade six students spend a mandated Orientation Day at their chosen secondary school in the last weeks of school. The before survey was conducted on this day, 2007. The survey asked students to rank their level of confidence on fourteen abilities under the headings Library, Learning and Research. Printed on the survey page, and explained verbally, were definitions for: Not Confident, Gaining Confidence and Confident. (See Appendix 1)

The survey was then repeated in week six of term one 2008, three weeks after the Learning Induction Program. On both occasions the survey took approximately fifteen minutes to complete. In introducing the post survey students were verbally reminded of doing the survey in 2007 and of the activities they completed in the Library doing the Learning Quest. They were also verbally reminded of the definitions for: Not Confident, Gaining Confidence and Confident.

### The Learning Quest: Student perception of Self as a Learner Survey

Students were first asked to say yes or no on whether they had: a computer at home, access to the internet at home and if they had a study space. Verbally students were told a study space could be their bedroom, a table in the lounge room or kitchen, a place where they could do, and leave, their school work. The computer and Internet questions were asked for interest. The question about a study space was asked because we had included activities related to assessing their study space in the quest. The survey itself asked questions about:

- Using the catalogue, Boolean searching and locating resources;
- How they learnt;
- How they worked in pairs;
- Study and revision skills;
- Research skills;
- ICT skills;
- Note making skills, and
- Knowing how to blend information.

The numerical data was converted to percentages and confidence levels are used to report and analyse the findings.

## Findings and Analysis

### The survey group

Sunbury is satellite city, 40 kilometres from Melbourne and close to our major airport. The socioeconomic levels of Sunbury College students are working to middle class so the

school receives no extra funding. In 2007, 201 students from the seven feeder primary schools in our region were surveyed, 92 girls and 109 boys. In 2008, 194 students, 92 girls and 102 boys were surveyed. Not all questions were answered.

*Computer, Internet and study space access.*

*Cohort*

Out of interest, students were asked if they had access at home, to a computer, the Internet and a study space. Table 1 shows computer and Internet access is almost 100%, which reflects the reasonable affluence of our community and the expectation that computers and the Internet are the norm.

The Learning Quest included activities that had students assess their study space and then go to an Internet site, (See References),that gave advice and description of what is required to make an effective study space. Table 1 showed reasonably high access to a study space, and that the activities had made a significant difference to access. Tables 2 and 3 show that girls had higher access in the first place and that it was boys the program impacted on more.

|  | 2007 | 2008 | Difference |
|---|---|---|---|
| Do you have a computer at home? | 99 | 98 | -1 |
| Do you have the Internet at home? | 91 | 95 | 4 |
| Do you have a study space at home? | 78 | 86 | 14 |

Table 1: Cohort:
Percentage of students having a computer, the Internet and a Study Space

|  | Yes | | |
|---|---|---|---|
|  | 2007 | 2008 | Difference |
| Do you have a study space at home? | 87 | 89 | 2 |

Table 2: Girls:
Percentage of students having a computer, the Internet and a Study Space

|  | Yes | | |
|---|---|---|---|
|  | 2007 | 2008 | Difference |
| Do you have a study space at home? | 70 | 83 | 13 |

Table 3: Boys:
Percentage of students having a computer, the Internet and a Study Space

*Perception of self as a learner*

*Cohort*

Shown in Table 4 below is how students perceived their confidence as grade six students. The pre survey showed students perceived themselves very confident on searching the Internet, working in pairs and taking notes. This information was known before the 2008 Learning Quest was finalised. We were sceptical about student high perception of their ability to search the Internet because they had rated their confidence in doing Boolean searching and knowing what a URL means quite low, 20% and 21% and we figured they were mostly using Google. We left in the online search the Internet tutorial activity. (See References)

| LIBRARY | Cohort |
|---|---|
| 1. Using the Catalogue to search for a Library resource. | 24.5 |
| 2. Doing Boolean searching & Key Words to narrow or broaden my search. | 20.5 |
| 3. Locating books and resources in the Library. | 54 |

| LEARNING | Cohort |
|---|---|
| 4. Knowing how you learn best. [activities, reading, watching videos, doing] | 63.4 |
| 5. Working in pairs & groups [without fighting, pulling your weight, taking turns] | 76.5 |
| 6. Study & Revision Skills [making summaries, reading text books, have strategies for taking tests. | 34.4 |

| RESEARCH | Cohort |
|---|---|
| 7. Knowing the stages in the Research Process. | 32.8 |
| 8. Knowing how to brainstorm the topic. | 50.2 |
| 9. Knowing how to make up questions for a topic. | 49 |
| 10. Knowing how to search the Internet [using search engines]. | 83 |
| 11. Knowing what a URL means. | 21 |
| 12. Knowing how to evaluate an Internet site for authority. | 26.6 |
| 13. Knowing how to take notes. | 63.1 |
| 14. Knowing how to blend information from different sources. | 41.6 |

Table 4: Cohort:
Perception of confidence of self as a learner, before the program, expressed as a percentage

Table 5 shows doing the tutorial had a significant, 17.7%, increase in their confidence at Boolean searching but interestingly, very little difference at their perception of searching the Internet. The Learning Quest asked students to evaluate for authority the Webwise site, (See References), the interactive and engaging site that they used for the cyber safety activity. The instructions were explicit, making students click on the 'about us' or equivalent. The URL activity was also taught explicitly, as a discussion. There were many ah ahs as students clicked with the logic, particularly with the country extension. A 14.25% increase for both seems to suggest explicitly teaching a skill or knowledge works.

The activities made significant improvement in student confidence for study and revision, and as noted earlier, some students, boys mostly, must have made a study space. The activity took students to two web sites, an informative one and a very engaging fun one, (See References). The using the catalogue activity had been revised to make it quicker as we knew this is a fairly boring aspect of Library orientation, so we were pleased to see the level of confidence increase. The 'Fabulous Facts Postcard' activity, (Appendix 2), had a reasonably significant impact on brainstorming, making notes and blending information. Creating the postcard was a fun activity that could be completed with success quickly.

Less significant increases were made for locating books and resources, though over 50% had said they were confident before the program. We may need to make this activity more fun and engaging when we revise the quest for 2009. The low difference, only 2.3%, for knowing how to make up questions was odd, as this was part of the postcard activity. But as for locating, 49% of the students had rated themselves confident at making up questions in the first place.

We obviously need to do something in response to the very low, .2% increase for knowing the stages in the research process. The activity was very brief; students simply went to the Making a Difference CD, (See References), and copied the stages into their workbook. It is a concern as only 39% had rated themselves as confident before the program.

Students had initially rated their confidence high for working in pairs. It is interesting to note a negative 1 difference after the program. What happened? Perhaps students prefer one on one with computers rather than two working together. Also, some students worked at desk top computers in pairs, whilst students who got laptops mostly worked solo because of space.

| LIBRARY | 2007 | 2008 | Difference |
|---|---|---|---|
| 1. Using the Catalogue to search for a Library resource. | 24.8 | 32 | 7.2 |
| 2. Doing Boolean searching & Key Words to narrow or broaden my search. | 20.3 | 38 | 17.7 |
| 3. Locating books | 50.7 | 55 | 4.3 |

| | | | |
|---|---|---|---|
| and resources in the Library. | | | |

| LEARNING | 2007 | 2008 | Difference |
|---|---|---|---|
| 4. Knowing how you learn best. [activities, reading, watching videos, doing] | 61.7 | 66 | 4.3 |
| 5. Working in pairs & groups [without fighting, pulling your weight, taking turns] | 76 | 75 | -1 |
| 6. Study & Revision Skills [making summaries, reading text books, have strategies for taking tests. | 34 | 43.8 | 9.8 |

| RESEARCH | 2007 | 2008 | Difference |
|---|---|---|---|
| 7. Knowing the stages in the Research Process. | 32.8 | 33 | .2 |
| 8. Knowing how to brainstorm the topic. | 49.7 | 58.2 | 8.5 |
| 9. Knowing how to make up questions for a topic. | 48.7 | 51 | 2.3 |
| 10. Knowing how to search the Internet [using search engines]. | 81 | 83.5 | 2.5 |
| 11. Knowing what a URL means. | 20.8 | 31 | 10.2 |
| 12. Knowing how to evaluate an Internet site for authority. | 27.3 | 41.7 | 14.4 |
| 13. Knowing how to take notes. | 62.7 | 69 | 6.3 |
| 14. Knowing how to blend information from different sources. | 41.7 | 48.4 | 6.7 |

Table 5: Cohort:
Percentage difference in perception of confidence of self as a learner

*Girls vs Boys*

Table 6 below shows where girls and boys differed in their levels of confidence before the program. The most significant difference was in their level of confidence for study and revision skills. As Table 2 shows, girls had more access to a study space than boys before the program, so perhaps they used them. Also significant, was girls perceiving themselves to be more confident than boys for; note taking, 13%, brainstorming, 12% and making up questions, 7%. Why would this be so? These skills are used when doing research assignments, and at primary school, research assignments are often done in groups or pairs and girls rated themselves higher than boys for working in pairs by 10%.

Boys perceive their level of confidence on knowing how to evaluate an Internet site for authority significantly higher than girls. Are boys more wary, do we need to teach girls to be more critical? As mentioned above, when we taught what a URL meant students did not know that the com extension meant a commercial site and that commercial sites ultimately aimed to sell something.

Because we had surveyed before we finalised the 2008 quest we had not included questions relating to the cyber safety activity that we included in the revised quest. With alarming reports suggesting the numbers of teenagers, particularly girls, being bullied or distressed by their online experiences, this area will need to be developed for the 2009 quest.

| LIBRARY | Girls | Boys |
|---|---|---|
| 1. Using the Catalogue to search for a Library resource. | 20.6 | 28.4 |
| 2. Doing Boolean searching & Key Words to narrow or broaden my search. | 22.8 | 18.3 |
| 3. Locating books and resources in the Library. | 56.5 | 51.3 |

| LEARNING | Girls | Boys |
|---|---|---|
| 4. Knowing how you learn best. [activities, reading, watching videos, doing] | 66.3 | 60.5 |
| 5. Working in pairs & groups [without fighting, pulling your weight, taking turns] | 81.5 | 71.5 |
| 6. Study & Revision Skills [making summaries, reading text books, have strategies for taking tests. | 42.3 | 26.6 |

| RESEARCH | Girls | Boys |
|---|---|---|
| 7. Knowing the stages in the Research Process. | 33.6 | 32 |
| 8. Knowing how to brainstorm the topic. | 56.5 | 44 |
| 9. Knowing how to make up | 52 | 45.8 |

| | | |
|---|---|---|
| questions for a topic. | | |
| 10. Knowing how to search the Internet [using search engines]. | 86.2 | 79.8 |
| 11. Knowing what a URL means. | 21.7 | 20.1 |
| 12. Knowing how to evaluate an Internet site for authority. | 18.4 | 34.8 |
| 13. Knowing how to take notes. | 69.5 | 56.8 |
| 14. Knowing how to blend information from different sources. | 40.2 | 43 |

Table 6: Girls and Boys:
Perception of confidence of self as a learner, before the program, expressed as a percentage

Table 7 below shows who the program had the greatest impact on. As mentioned above , for boys, the study and revision activities had a significant impact, not only on their level of confidence but they also went home and made a space. For girls it was using the catalogue. Girls had been less confident than boys before the program so they may have been receptive to this learning.

| LIBRARY | Cohort | Girls | Boys |
|---|---|---|---|
| 1. Using the Catalogue to search for a Library resource. | 7.2 | 14.1 | 2.9 |
| 2. Doing Boolean searching & Key Words to narrow or broaden my search. | 17.7 | 16.2 | 18.9 |
| 3. Locating books and resources in the Library. | 4.3 | 1.1 | -.3 |

| LEARNING | Cohort | Girls | Boys |
|---|---|---|---|
| 4. Knowing how you learn best. [activities, reading, watching videos, doing] | 4.3 | 3.2 | 2.2 |
| 5. Working in pairs & groups [without fighting, pulling your weight, taking turns] | -1 | -2.2 | 0 |

| 6. Study & Revision Skills [making summaries, reading text books, have strategies for taking tests. | 9.8 | 2 | 16.4 |
|---|---|---|---|

| R E S E A R C H | Cohort | Girls | Boys |
|---|---|---|---|
| 7. Knowing the stages in the Research Process. | .2 | 2.2 | -1.7 |
| 8. Knowing how to brainstorm the topic. | 8.5 | 3.2 | 12.8 |
| 9. Knowing how to make up questions for a topic. | 2.3 | -4.2 | 8.2 |
| 10. Knowing how to search the Internet [using search engines]. | 2.5 | -2.6 | 3.5 |
| 11. Knowing what a URL means. | 10.2 | 6.5 | 14.2 |
| 12. Knowing how to evaluate an Internet site for authority. | 14.4 | 15.2 | 14.2 |
| 13. Knowing how to take notes. | 6.3 | 6.5 | 5.9 |
| 14. Knowing how to blend information from different sources. | 6.7 | 11.8 | 2 |

Table 7: Cohort, Girls and Boys:
Percentage difference in perception of confidence of self as a learner.

Conclusion

Analysis of the survey results showed that students completing the activities in the 2008 Learning Quest did make a difference to their perception of themselves as learners and their level of confidence. Students' level of confidence increased when they were taught explicitly and when the activities were engaging, fun and completed with success quickly. It is also obvious that we need to revise the quest if we want to increase levels of confidence more significantly, especially in skills and knowledge for the 21st Century learner and for girls in relation to cyber safety.

We have limited time, only four fifty minute periods for students to complete the quest in the library. We have extra help on hand; the classroom teacher, the teacher librarians

and library support staff so students should not have to wait for help and staff can circulate ensuring students get help promptly. When we revise the quest, after consultation with teachers, some activities will have to go or be modified.

Teacher collaboration, consultation and support is vital to the success of the Learning Quest as being a way of getting library curriculum integrated into the teaching and learning in all subjects. Teacher meetings with all year 7 teachers, throughout the year as well as at the end, for training, and the beginning for refresher and new staff, are scheduled to ensure all teachers are being consistent and reinforcing the information literacy skills and knowledge that will make our students confident learners.

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*Learning Quest Resources*

*Internet Sites*

Interactive Search Engine Tutorial
http://www.learnthenet.com/english/index.html

Multiple Intelligences Wheel
http://www2.bgfl.org/bgfl2/custom/resources_ftp/client_ftp/ks3/ict/multiple_int/index.htm

Preparing for Study
http://www.how-to-study.com/


State of Debate Game 7 RU Revising Science Game
http://www.bbc.co.uk/schools/

Surfwise Test
http://www.webwise.ie/

*CD Program*

School Library Association of Victoria (2003) Making a Difference: research guide.
Available from www.slav.schools.net.au



*Biographical Notes*

I have been an English teacher and Teacher Librarian in Victorian State Schools for over 20 years. I firmly believe teacher librarians in secondary schools must teach their own class and at different year levels. I am able to practice what I preach and influence teachers in their pedagogy to ensure the library curriculum is integrated in their teaching. In recent years I've led the development and implementation of major curriculum changes involving whole year levels: Year 9 City Curriculum and Year 7 Learning Induction Program. In 2007 I took on the role of Curriculum Coordinator.
I am Vice President of the School Library Association of Victoria, chair my local branch and in 2007 took on Curriculum coordination at my school. I am currently enjoying studying for the Masters of School Leadership at The University of Melbourne.


**Statement of Originality**


This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.



Appendix 1: The Learning Quest: Student perception of Self as a Learner Survey

The Learning Quest
Student Perception of Self as a Learner Survey

*Please circle*:   Boy          Girl

Do you have a computer at home?          Yes          No

Do you have the Internet at home?          Yes          No

Do you have a study space at home?          Yes          No

*Please rate yourself: Tick*

Not Confident: I'm not sure how to do that.
Gaining Confidence: I know a bit about that but I'm still not good at it.
Confident: I'm very good at doing that.

| LIBRARY | Not Confident | Gaining Confidence | Confident |
|---|---|---|---|
| Using the Catalogue to search for a Library resource. | | | |
| Doing Boolean searching & Key Words to narrow or broaden my search. | | | |
| Locating books and resources in the Library. | | | |
| LEARNING | Not Confident | Gaining Confidence | Confident |
| Knowing how you learn best. [activities, reading, watching videos, doing] | | | |
| Working in pairs & groups [without fighting, pulling your weight, taking turns] | | | |
| Study & Revision Skills[making summaries, reading text books, have strategies for taking tests | | | |

| RESEARCH | Not Confident | Gaining Confidence | Confident |
|---|---|---|---|
| Knowing the stages in the Research Process | | | |
| Knowing how to brainstorm the topic. | | | |
| Knowing how to make up questions for a topic. | | | |
| Knowing how to search the Internet [using search engines] | | | |
| Knowing what a URL means. | | | |
| Knowing how to evaluate an Internet site for authority. | | | |
| Knowing how to take notes | | | |

| Knowing how to blend information from different sources. | | | |
|---|---|---|---|

Appendix 2: Fabulous Facts Postcard

# Fabulous Facts Postcard

> Your Task: To create a Fabulous Facts Postcard

1. Decide your topic.
2. Go to Making a Difference [Start – General Applications – Making a Difference]  Making a Difference – Defining – Designing Questions: Use the question stems for Remembering, Understanding & Analysing to design 3 questions about you topic.
3. Go to the Education Channel [School home page, right side bar] – Search using the KEY WORDS for your topic.
4. Record the answers in notes on the data chart.
5. Use 2 sites for each question.
6. Blend your notes to write a 3 – 4 sentence paragraph about your topic.
7. Design & Create your postcard to be eye catching. [Use Word, Publisher or a Power Point slide, remember: font, colour, pictures]

| Fabulous Facts Data Chart | | | |
|---|---|---|---|
| Topic: | | | |
| Key Words: | | | |
| | Remembering Question | Understanding Question | Analysing Question |
| | | | |
| Internet Site 1 URL: | | | |
| Internet Site 2 URL: | | | |
| Write your paragraph in your own words, using your notes. Check for spelling, punctuation and sense. 3 – 4 sentences | | | |

# Helping Students to Become Lifelong Learners
## One teacher's journey to implementing collaborative planning and teaching

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Australia

*Helping students become lifelong learners can be a difficult task, especially when classroom teachers have so many other areas to cover in their curriculum. Many see "library skills" as an added extra rather than a valuable adjunct so, it is up to us, as teacher-librarians, to show them that we can take this valuable topic off their shoulders and put it onto ours. The key to success is demonstrating to the school's leadership group that collaborative planning with teachers will improve both learning and teaching outcomes. This session will give you ammunition to inform your principal and staff that you are a critical partner when it comes to guiding students along the path of "becoming lifelong learners".*

*Teacher and Teacher-Librarian Collaboration, Information Literacy Skills, Big Questions*

## Introduction

There are many definitions of information literacy but the common core is "Information Literacy is the ability to access, evaluate, and use information from a variety of sources." (Doyle, 1992) And the common elements of the definitions conclude that an information literate person is one who:

- Recognises that accurate and complete information is the basis for intelligent decision making

- Recognises the need for information

- Formulates questions based on information needs

- Identifies potential sources of information

- Develops successful search strategies

- Accesses sources of information including computer-based and other technologies

- Evaluates information

- Organises information for practical application

- Integrates new information into an existing body of knowledge

- Uses information in critical thinking and problem solving (Doyle, 1992)

As well, the Victorian Department of Education requires students in Years 7 and 8 to cover the domain of Thinking Processes.

This domain encompasses a range of cognitive, affective and metacognitive knowledge, skills and behaviours which are essential for effective functioning in society both within and beyond school. The study of thinking enables students to acquire strategies for thinking related to enquiry, processing information, reasoning, problem solving, evaluation and reflection.
(State Government of Victoria, Australia 2008)

I started this journey of wanting to present the topic, *Helping Students to Become Lifelong Learners*, to the IASL 2008 Conference with the idea of showing how, when the teacher-librarian teaches information literacy skills in a careful, step-by-step process, in collaboration with the classroom teacher, students improve their research skills, equipping them to become lifelong learners. My journey has taken me down several different paths which I had not anticipated, but hopefully I will still reach my destination point. This paper is the story of that journey so far.

**Attempting to Collaborate with Teachers to Teach Information Literacy Skills**

At the 2007 ASLA (Australian School Library Association) Conference in Adelaide, South Australia, I attended two sessions which really resonated with my beliefs. The first *How to collect evidence of student learning: Seven years of experience*, (Ryan, 2007) explained how one school proceeded to pre and post test its students and found that by having such skills taught by a teacher-librarian, in collaboration with the classroom teacher, students did improve their skills. From the findings, the principal came onboard and decided that all subject area teachers would work with the teacher-librarian to plan research assignments with the teacher-librarian teaching the steps of correct research. (Below is the graph, showing the results of the pre and post tests)



Year 7 2000 Progress
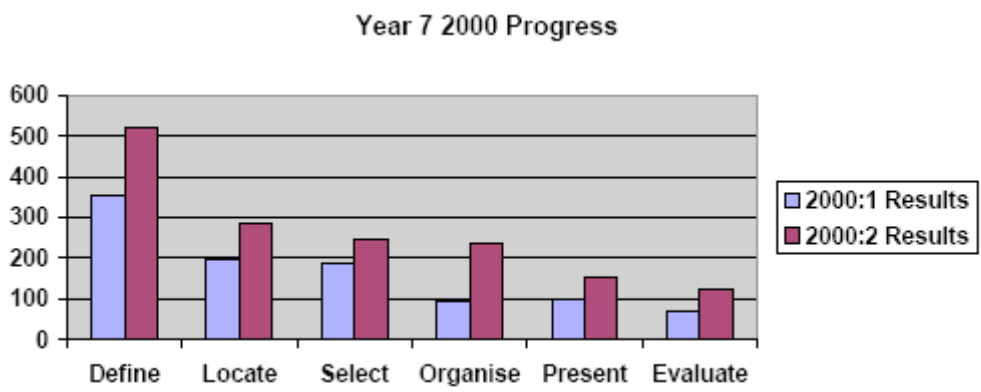
The second, *Practice makes perfect* (Lynch, 2007) also demonstrated how teacher-librarians can help their students improve their research skills. Lynch and her colleagues, (Heard and Haren), having pre- tested their students could see improvement in information literacy skills when the classroom teacher and teacher-librarian collaborated together in planning and teaching. Examples of assignments they and classroom teachers developed together were shared with participants. These examples were later emailed to me. Since this session, the staff has updated their work and has published this in Access, ASLA's journal. (Heard, Lynch & Haren, 2008)

I was impressed with each study and findings and decided to present them to my school, Horsham College, a Victorian government 7-12 secondary school, and to attempt to implement the same strategies and achieve similar improvements. I wrote a report and a request to implement my plan to the principal and curriculum co-ordinator. I was told that my ideas were good, but mandating that all teachers work with me when giving research assignments could not be done. The reason for this stance is because the teaching culture in Victorian government schools is for teachers to be very private and personal with their teaching methods and lesson planning. They do not like to be told that they must teach in a certain way. However this feeling is gradually changing with teachers graduating from universities having been taught to collaborate with their fellow teachers.

My next step was to speak to department heads. The English department head did not really want to listen, as she felt research skills were the domain of the Humanities department. I then approached the Humanities head, and explained how I wanted to collaborate with her in designing a research project for the Year 7 (ages 12-14) classes. I gave her sections of Victorian Educational Standards (VELS) which covered research skills that teacher-librarians have recognized as part of their teaching domain. I explained that these areas, although in the Humanities domain could be taught in collaboration with me and so she and her teachers could focus on content areas. I also gave her a basic outline of what could be done in the library. Being the final term for the year, we agreed we would do a trial with the Year 7's geography project in 2008.

Since nothing formal had eventuated by the start of this school year, (Australian schools begin their year at the end of January/start of February) I decided to approach individual teachers explaining how we would work together and how both learning and teaching outcomes could be improved through collaboration. Again I came across hurdles with the first term shortened to coincide with the Easter break, and extra-curricular activities impacting on classes. Teachers were overloaded with trying to complete their own curriculum without having to plan for lessons in the library.

We are now into an extended second term and I have pre-tested four of eight Year 7 English classes, but am only working in partnership teachers who teach classes 7A and 7H as they were the only ones who showed interest. The two other classes will serve as a control group.

## Pre-Test Results 2008

A bar chart titled "Pre-Test Results 2008" showing two data series: "Year 7 Students" (light purple) and "Students in 7A & 7H" (dark red). The vertical axis ranges from 0 to 120 in increments of 20. Categories along the horizontal axis: Students, Questions, Information, Keywords, Book Biblio, Web Biblio, Evaluating Websites, Notetaking, Reporting, Organizing, Reporting 2.

From the test the following information could be gathered:

- Most students can develop questions to help with their research
- Most students were able to recall either index OR contents as places where one can find out if a book has information that is needed. Most students thought that a glossary was a place where one can find out if a book has information that is needed.
- Most students did not understand what keywords were when looking for information and either wrote sentences or the information they knew about the topic.
- Many of the students knew some of the necessary bibliographic information for a book, but not all. Many thought that the illustrator was needed. Some students responded that they did not know what bibliographic meant.
- Very few students knew what bibliographic information was needed when using a website. Most thought that all they needed was the name of the site or its address.
- Many students thought that if a webpage looked good it must be good.
- Many students did not read the instructions correctly and instead of taking notes from the article, wrote a report. Some of those who did take notes, gathered information which was not needed.
- Most students were able to read and understand the two sets of notes (dot points) that were given to them and then write a short report from that information. Some of the students did not read both sets, but only used the first set. A few others included information not in the notes.
- Many students did not know what a Venn diagram was and if they did, did not use the information they placed in the diagram to write a short report.

From the information that has been gathered from the pre-test, the teachers of 7A and 7B and I will know which areas need to be targeted when teaching Information Literacy Skills.

We are taking baby steps to initiate the program with the two classes. Lessons are not as intense as they should be, because the mandated government curriculum requires a great deal of direct instruction so time constraints have made booking classes into the library on a regular basis difficult. But I believe there will be an improvement with the two classes, for when they are able to come into the library, information literacy skills are being presented by me, they are using library resources in the library and not in a resource box, and their teachers

are team teaching with me, allowing two teachers to be available to help students. Their teachers are also given more time to plan, teach, correct and grade other areas of the curriculum because they do not have to worry about the research skills domain.

As mentioned before, I am only working with two Year 7 classes. This is not by choice, but because the other teachers feel my help in teaching Information Literacy Skills is not necessary. One teacher told me she was teaching these skills in her class and things were going well. The next day I had four students from her class come to the library without paper or pen and without knowing what they needed to learn. When asked what they needed to research about their topic, their answers were, "stuff". Clearly from the time they had been taught their questioning skills to the time they arrived in the library, that information was forgotten.

At a learning area meeting, I brought this problem to the attention of the teachers. In his defence one teacher explained that he was having difficulty working with every student in his class on an individual basis, so not all students were understanding or using the questioning skills I thought were necessary. I again explained that I was available for team teaching in the library.

Just as the previous teacher was having difficulty in his classroom, often I have seen teachers struggling in the library, trying to do the same thing. The teachers cannot work with all of the students, and struggling students lose interest and get off task. If I was invited to team teach with those teachers, more students could be catered for and continue to stay on task.

I also have noticed that when students from subjects such as Maths, Art or PE come to the library for research they often tell me they do not have to take notes, cite their references or worry about spelling and grammar because their project is not in English or Humanities. They view these subjects in a different manner, not considering those standards as relevant in these subjects. If all research projects were explained and taught in the library, with the teacher librarian, these skills would be seen as important across the board and not just in the realm of English and Humanities. Thus students would realize that they are learning life skills, not just "school skills".

One of the English classes has completed a research task on dangerous plants and animals in Australia, a follow-on from a novel they had read during their silent reading time in the Library. Their teacher and I collaborated with planning the assignment and deciding which roles each of us would undertake. I taught the class the Information Literacy Skills and graded them on their ability to use those skills. The teacher graded them on the content and presentation of their project.

7A and 7H Humanities classes are starting an assignment where each student is researching an Asian country and comparing it with Australia with the big question of which country they would like to live in and why. Classes have not been regularly booked into the Library, but we have been able to complete the task of forming appropriate questions to answer their big question. This has been a challenge to them as they are used to just finding facts, pictures, maps, flags and charts for poster presentations. They also have had lessons on finding and citing appropriate resource material in print form. Their next lesson will be learning to take notes, while referring back to their questions.

The teachers I am working with have said that they are quite pleased with not having to teach these lessons, but instead concentrate on teaching geography skills. They can also see the value of having proper lessons with the whole class instead of superficially covering the material in class. They are also looking forward to lessons on web site evaluation, gathering bibliographic information for web sites, and taking notes from the Internet, because they realize that students are cutting and pasting from the first site they find, thinking that Google is a web site, not knowing how to cite a web site, or saying that they cannot find any information on an appropriate site.

One teacher wrote the following about our work together. "Working with the teacher-librarian on basic research skills has been great for my Year 7 English students. It means they have a common understanding and a consistent approach to their research that can be supported by all their teachers in all their subject areas." (Deayton, 2008)

At the time of writing this paper, it was not yet time to re-test the classes. However, by August, this testing will have been done and the results included in the workshop. (Should you want to obtain the results, contact me at hartwich.dona.j@edumail.vic.gov.au .) It is my prediction that the test results of the classes with whom I worked will be better with their researching skills than the other classes because they have had systematic teaching of those skills, rather than the traditional incidental teaching by the classroom teacher.

## Conclusion

This is my fifth year at Horsham College. There are times when I hold up my hands in frustration because I think I am not accomplishing what I had set out to do. It is at those times I need to step back and see what I have done. I have started to change teachers' view of the librarian as being that of an administrator to that of a teacher-librarian; a fellow teacher who can collaborate with them to improve their students' outcomes and ease their workload.

I have come to the conclusion that the best way to encourage teachers to collaborate with me, is not to stand over them with a big stick and demand that they cooperate, but to start working with a few willing teachers, who will in turn tell others how much easier it was to work and plan with me than by doing it all on their own. And with pre and post tests to show that their students faired better than those students whose teachers did not collaborate, they will have the evidence to encourage others to come on board. Positive feedback, both anecdotal and testing will also show the principal that my job is of value which will, in turn, keep his support for library improvements.

Through my contact with other teacher-librarians, both in Australia and overseas, I have been able to see that the difficulties of properly teaching Information Literacy Skills and collaborating with classroom teachers are universal. It is my hope that by reading the account of my journey to resolve the difficulties in my school, I have been able to help or encourage those in similar situations.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Designing Multiple Book Clubs to Meet the Interest of Diverse Populations

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*Reading for recreation has been an on-going problem for our high school so we decided to create an after-school book club. However, in large urban high schools with diverse populations, it is difficult to meet the interest of all students with one book club.*

*In our school there are fifty-two languages represented and students from various backgrounds, ethnicities and academic abilities.*

*Data was collected, analyzed and a question emerged. If we developed book clubs around the interest of students, would recreational reading activities increase at our high school? The following paper is what we found to be the answer.*

Book Clubs, High Schools, Diversity

## Background

It does no good to have a beautiful media center, up-to date collections, and computers capable of handling gigabytes of information, if no one ever uses it. Books that lay in wait while onlookers pass by hurriedly on their way to somewhere else do nothing for the academic achievement of students at any school. Creating exciting programs such as book clubs, not only promotes the media center, but it is a great way to encourage students to read for recreation.

One way to improve reading comprehension is to give students the opportunity (practice) to read for leisure. Book clubs give students the opportunity to read, and they also match students with other students who enjoy reading similar genres. But what if a school has students from various backgrounds, ethnicities, and academic abilities? Our urban district, MSD of Wayne Township, has students who speak fifty-two different languages representing different ethnicities. We have students from China, Vietnam, Malawi, Ghana, Ethiopia, Japan, Peru , El Salvador, the Philippines, India, Somalia, Liberia, Honduras, Mexico, Sudan and many other countries.

Ben Davis High School has approximately 3,050 students in grades 10-12. There is a separate ninth grade center. According to the Indiana Department of Education's website, Ben Davis High School's student make up is 52% Caucasian, 33% Black, 9% Hispanic, 2% Asian, and 4% multi-racial. Fifty-three percent of the students are on free or reduced school lunch. Of these students, 54% passed the reading portion of the Indiana Accountability System for Academic Progress Test (ISTEP) in the 2006-2007 school year. There was a slight increase this past year to 55%. The goal would be to have 100% rate of students

passing the ISTEP, however, a more realistic goal would be to have an annual increase of two to three percent.

What do all of these students have in common?  Most of these students do not read for recreation.  They only read what is assigned by their teachers. How do we encourage recreational reading and meet the needs of this diverse group?  The high school already offers a variety of courses and diplomas.  We offer both the Core 40 and honors diploma, and the International Baccalaureate (IB) diploma will be offered starting next school year.  Students may take courses in radio and television, hair design, auto body or auto mechanics, culinary arts, desktop publishing, photography, ceramics, Spanish, French, or Latin, as well as core courses like English, geometry, and physics, just to name a few.  Twenty-six AP classes are also offered.

Students can take classes in a regular classroom setting, at night school, or at our new university high school, in which they can receive an associate degree along with their high school diploma.  Another option is our enrichment center, which offers classes in a more relaxed environment with students only attending half days.  We wanted our media center offerings to be just as diverse as the other departments.

This was my dilemma at the beginning of this school year.  Ben Davis was a new school for me and it represented a change in the age of the students I would work with, as I had previously worked at the elementary level. We have one media specialist and three full time assistants.  Our media center's budget is generous, and our administration is very helpful and supportive.  Teachers are also willing to collaborate, especially the English and social studies departments.

The following paper is an account of an action research project we did to find out ways to get students reading for recreation. According to The North Central Regional Educational Laboratory (NCREL):

> Action research is inquiry or research in the context of focused efforts to improve the quality of an organization and its performance. It typically is designed and conducted by practitioners who analyze the data to improve their own practice. Action research can be done by individuals or by teams of colleagues. The team approach is called *collaborative inquiry*.

> Action research has the potential to generate genuine and sustained improvements in schools. It gives educators new opportunities to reflect on and assess their teaching; to explore and test new ideas, methods, and materials; to assess how effective the new approaches were; to share feedback with fellow team members; and to make decisions about which new approaches to include in the team's curriculum, instruction, and assessment plans.

## *Need*

The majority of our students are not reading for recreation and yet research shows a correlation between time spent reading and academic benefits.  "The more a student reads, the more his or her vocabulary and comprehension increases." (Mckee, 2005)  This is why it is necessary for us to design extra-curricula activities such as book clubs.  Book clubs give students a chance to meet other students who like to read.  Using reading, writing, discussion,

and instruction, the book club can become a tool that helps students in other academic pursuits.

According to our media center statistics, in the 2006-2007 school year alone, we circulated 18,323 books and materials. We hope to circulate 25,000 books and materials in the upcoming 2008-2009 school year. A circulation of 25,000 books in one school year would be a great improvement and would indicate that students are reading for recreation, as well as for research. Heavy promotion by the media center and word of mouth from students will play a vital role. We will also look at the data at the end of the next two school years to determine if the number of students reading for recreation has continued to increase.

*Materials and Methods*

Methods included interviews, surveys (pre/post), questionnaires, student-completed activity sheets, circulation statistics (media center), and Reading Counts reports. Our surveys and interviews were conducted with one hundred students in grades 10-12 randomly. We used qualitative methods to organize the data. The data was collected over a six month period. The data was analyzed by the media specialist in an effort to drive instruction and/or activities and to make sure the clubs were meeting the interests and needs of our diverse group of students.

## Literature Review

It is interesting that there are not a lot of articles about high school book clubs. In searching several educational databases, there were a little over twelve hundred hits for "book clubs." When the search was narrowed for "book clubs and students" the hits went down to hundreds. Entering "book clubs and high school" only produced twenty-one hits. Many of these twenty-one hits focused on specific programs with book clubs and not student-led book clubs, and much of the information was not as useful as I had hoped.

As a result, we had to look at studies done at all levels--elementary, middle, and high school. Taffy Raphael did several studies in the nineties on a program called "Book Club." Although Raphael was speaking about a specific program, there were certain goals that were similar to the goals we wanted for our after-school book club. She stated:

> The participants in the Book Club project shared a common vision of the goals of literacy instruction: (a) promoting students' understanding, enjoyment, and choosing to engage in literacy activities; (b) helping students learn to acquire, synthesize, and evaluate information from text; (c) helping students develop a language to talk about literacy. (Raphael, 1991)

Although the students in Raphael's study were of elementary age, these same goals hold true for high school students. In an article in *Teacher Librarian* entitled, "How I learned to Run a Really Popular Book Club," Hall (2007) suggests that we should not reinvent the wheel. She describes many activities to promote reading that encourages students to come in the media center in droves. She encourages media specialist to "make it fun." This is a great motto. She also mentions incentives which are also a great idea for library media programs. Prizes of Xbox systems and/or pizza parties are sure to bring students in. There should also be refreshments at every meeting. Many students are hungry after school, and it is difficult to concentrate if you are hungry.

In "Adventures with a High School Book Club" (McKee, 2005), the author says that on the very first meeting of the book club, it is very important to be prepared. "For each meeting, I prepare an agenda and discussion questions, just in case the students forget. At our first meeting, I had the group share their thoughts about reading such as, "What types of books do you read? and "Where do you do most of your reading?"

Studies also pointed out that an up-to-date, relevant media center collection was essential in meeting the needs of students' recreational reading or research activities? According to Curry (1994) "Students at schools with better-funded library media centers tend to achieve higher average reading scores, whether their schools and communities are rich or poor and whether adults in their community are well or poorly educated." Therefore an early question that needs to be answered before deciding on a plan of action to reform media programs is does the media center have the necessary funds to allow for weeding of outdated materials and the purchase of new materials on a regular basis?

Studies also seemed to favor the student-led approach. In classrooms, literature circles which are mini-book clubs often take on the student-led approach. When students direct their own activities, there is a buy-in that can not be duplicated. Daniels (2002) discusses the positive student outcomes for literature circles and the benefits to the school, as well as student achievement:

> Many educational researchers today are studying the use of peer-led discussion of literature in promoting positive student outcomes (Almasi, 1995). One type of peer-led literacy intervention is called Literature Circles or sometimes Book Clubs. Harvey Daniels coined the term "literature circles" in the 1990s and continues to be a leading researcher in the area along with many others (Blum et. al., 2002; Daniels, 2002; Goatley, 1995; Pitman, 1997). Much of the research on peer-led interventions examines whether such interventions can meet the needs of diverse learners, and most of the research so far has affirmed this hypothesis (Mathes et. al., 1998; Saenz et. al., 2005; Alvermann et. al., 2006). Alvermann discuss two studies on peer-assisted literacy strategies (Mathes & Babyak, 2001; Mathes et. al., 2001 as cited in Alvermann). These strategies were found to enhance all students' reading performance, but especially that of lower-achieving students (Alvermann et. al., 2006).

Worthy, Moorman, and Turner (1999) discuss access to materials of interest and the relationship to student achievement. According to these authors:

> Research about the importance of interest in learning suggests that students who have access to materials of interest are more likely to read and thus to improve their reading achievement and attitudes. This study examined the reading preferences and access to reading materials of sixth-grade students from three middle schools in a large, ethnically and economically diverse southwestern U.S. school district. Preference surveys and open-ended questions about favorite materials and authors showed that the most preferred materials among students were scary books and stories, comics and cartoons, magazines about popular culture, and books and magazines about sports. Other popular materials were drawing books, books and magazines about cars and trucks, series books, funny books, and books about animals. Comparisons by gender, income, reading attitude, and achievement found more similarities

than differences. Students' school access to reading materials was examined through a student questionnaire and through interviews with their teachers and librarians. The majority of students obtained reading materials from purchased sources (stores or their homes), rather than schools and libraries. Classrooms ranked a distant last for book sources among even low-income students. Interviews with teachers and librarians, along with classroom visits, showed that the availability of the most popular materials was limited across schools and classrooms.

*Implementation*

Moyer (2006) had goals for her Accelerated Reader program that were similar to goals that we wanted in our book clubs. "Three initial goals were to have special education, reluctant readers become more aware of their personal reading habits, increase circulation statistics among special education students, and improve reading grade levels using the Star Reading program." Our goals were to have all reluctant readers become more aware of their personal reading habits, increase circulation statistics in all groups of students, and improve reading grade levels using the Reading Counts program.

Our surveys were answered by about 100 students. Survey questions included:
- What genre of books do you like to read?
- Who is your favorite author?
- How many books have you read for recreation this year?

The complete survey is found in Appendix A

Due to our data collection and analysis and a review of relevant literature and articles, we started five student book clubs and one staff book club. All clubs met after school for one hour and twenty-five minutes, once a week. Students were released in time to catch late activity bus. The book clubs created were The BD (Ben Davis) Reading Club, The Reading Counts Book Club, The Reading Counts Gaming Club, The Battle of the Books Team, and The Graphic Novels Club. These clubs were chosen due to the number of students that wanted to read a certain genre, read independently or wanted the media center to continue incentives similar to the previous media specialist.

The previous media specialist had one book club. It was called the No Club Book Club. This club was designed for students who did not want to be part of a formal club. Students could come in independently and write down what they read in a binder that the media center staff prepared. There were incentives for every ten books read. There were no checks and balances and students were taken at their word. Students could then look through a catalogue with gifts up to thirty dollars and choose one. It was a money drain on the media center because students began to say that they had read ten books every week and then they would select the most expensive gift possible.

This is why I decided on the Reading Counts Incentive Book Club. I also canceled the incentives associated with the No Club Book Club. The students who loved to read but did not want to be part of a formal club continued to participate in The No Club Book Club. The students who were not serious about reading joined other school clubs.

There is much debate in educational circles and educational research on extrinsic motivation (students study for the sake of outside influences such as getting teacher, peer

praise or for a prize) vs. intrinsic motivation (learning for the sake of learning). Studies have shown that only intrinsic motivation is sustainable. It has been my experience that the students that participate in the book clubs are hooked by the type of books we offer rather than the snacks and prizes. However, due to the prizes, snacks and games they view the media center as "cool" which allow them to come in and "save face" with their peers about joining a book club. The most important factor is getting them to come in the media center and having activities to keep them coming back for more.

Major strategies of the book clubs were: modeling, explaining, discussing, reflecting, questioning, inferring, activating prior knowledge, drawing conclusions, relating, clarifying, and predicting.

The main goal of the was for students to develop a life-long love of reading and to be able to take the information in books and analyze, synthesize, evaluate, and discuss it. Activating prior knowledge was also very important, in order to relate some of the topics back to their own lives. Other activities included choral reading, silent reading, creating puzzles based on plot, and Reading Counts tests for comprehension check. We even played a variation of the American television program, *Win, Lose, or Draw*, in which contestants draw clues and observers guess what is being drawn, based on the books we read.

We used read-alouds as a method to model reading and to add another dimension to the book clubs. At each meeting students were expected to have read fifty pages of the selected book. In some instances this was not possible due to the other activities students were involved in. I always asked for a show of hands to determine who had completed the readings. If the majority had not read we read about ten pages aloud in unison. This way we did not spoil the book for those who had not had a chance to read. This was especially helpful to students around classroom mid-term and final exams.

> Read-alouds for secondary students can be the most rewarding part of a teacher's day, yet many teachers, particularly those at the secondary level, incorrectly believe this strategy is too juvenile for their classes. Read-alouds can be an ideal way to put literacy strategies into content area instruction at all levels (Richardson, 2000).

Another strategy we used was graphic organizers, which help students construct meaning by making connections explicit. The K-W-L chart, an instructional technique, created by D. S. Ogle (1986) was a favorite of the book club members. This technique is used to activate students' prior knowledge. Using the K-W-L chart before we read a new novel, students were able to write what they knew about the book in the first column and what they would like to know in the second column. After we read and finished the activities of the book, they completed the last column with what they learned. They had used this approach in their classrooms and were familiar with it.

According to Fisher (2001), "When students can see evidence of their inquiry and how it has influenced instruction and assessment, they are able to make meaning of knowledge." Using Bloom's taxonomy (1956) I explained to the book club members that all questions on worksheets or questionnaires that they create should cause the members to analyze, synthesize, and apply their knowledge of the books. After modeling what that would look like, students were ready to begin.

Since the main goal of a book club is to encourage a love of books and regular use of libraries, it is necessary for students to hear about a variety of books. A book talk is one way to accomplish this purpose. A book talk exposes students to books they may have never considered that are outside of their comfort zone. We decided to book talk at least one book at each meeting. Sometimes I would book talk a book, a classroom teacher or one of the students in the book club would conduct the book talk.

In The BD Reading Club, students voted on the books they wanted to read, two at a time. They planned the activities to go with each book. They were expected to have fifty pages read before each meeting. They were all encouraged to create activities for each book, but when someone was absent or forgot to bring an activity, the media specialist always had an back-up activity. This only occurred twice due to absentees from school by the students whose turn it was to conduct the activity.

Snacks were provided at each meeting, with a few pizza parties thrown in once in a while. The media centers' extra curricular account had about $2000 left over from the previous year allowing us to buy snack and incentives early on. The BD Reading Club started with about twenty-five students but maintained about seventeen regulars.

The books read in The BD Reading Club this year were: *Freedom Writers* Diary by Erin Gruwell; *She Said Yes* by Misty Bernall; Flowers *in the Attic* by V.C. Andrews; *Dollmage* by Martine Leavitt; and *Anansi Boys* by Neil Gaiman. We also discussed their favorite book, *Twilight*, by Stephanie Meyer.

The Reading Counts Incentive Club was a club in which students could read books that had Reading Counts stickers and take a test on them. Most of the books in the media center's collection were Reading Counts books. Students had to have 80% passing rate to be considered successful. Upon completion of every two books, they would receive local movie tickets and various other incentives. There have been approximately fifty students in The Reading Counts club. This club does not meet formally, students work independently to earn incentives.

The Reading Counts Gaming Club was an additional reward for those students who had been successful with Reading Counts and had received multiple incentives. We had gaming tournaments where students could play video games after school and on their lunch periods. The winners won gift cards at local stores, and pizza and soda was served. Members also received a free book. We had a contest each semester. At the end of the year, the student with the most Reading Counts points won an Xbox 360 gaming system and a series of Xbox 360 games. There were about twenty students in Reading Counts Gaming Club.

In addition, we created a city-wide Battle of the Books competition for high school students. Students read seven books from the Elliott Rosewater list.

The Eliot Rosewater Indiana High School Book Award (Rosie Award) is chosen annually by students across Indiana in grades nine through twelve. Students at participating high schools and public libraries who read any of approximately twenty nominated books are eligible to rate each book they've read. Ballots are available on the Rosie website. The votes are tabulated each May, and the winner is announced (ILFonline.org).

The seven books were pre-selected by Indianapolis high school media specialists at our annual grant writing meeting. They were: *Twilight* by Stephanie Meyer; *Chanda's Secret* by Allan Stratton; *I Am the Messenger* by Markus Zusak; *Crunch Time* by Mariah Fredericks; *Daniel Half Human and the Good Nazi* by David Chotjewitz; *A Wreath for Emmett Till* by Marilyn Nelson.

Students from area high schools read the seven books all year and then came to Ben Davis for a written test in the morning, which narrowed the teams down to three. In the afternoon the three finalist teams competed in a Jeopardy style test in the auditorium. Each team consisted of five contestants. Each student had a buzzer and could ring the buzzer if they felt they knew the answer to the question posed by the game host. All answers were the title of one of the seven books. Correct answers added twenty points whereas wrong answers took away ten points. Breakfast and lunch was provided for all participants.

The winning team took home a trophy for each contestant and a traveling plaque for their school. The competition aspect brought in some fresh new faces to the media center. The Battle of the Books Team started with twelve students and was narrowed down to a team of five students with two alternates.

With all of the media coverage we received, including one local newspaper article before the event, another local newspaper article after the event as well as our school TV coverage of the event and a thirty minute interview on the school radio station, I am hoping that next year we will have many more students trying to competing in this event.

The Graphic Novels Club, which started later in the school year, was designed to be a place where students could exchange graphic novels. After the media center's initial investment of $1,500 to begin a collection, we realized that it would be very difficult to buy all of the books for every series. Therefore, a committee of students helped to select a core collection and through The Graphic Novels Club, students could trade or borrow from each other. The most popular titles were *Bleach*, *Black Cat* and *Maus*. This club maintained about fifteen students; however, each Monday when they meet, there are always several new faces.

Students in all of the clubs were very diverse. We had males and females, sophomores, juniors, and two seniors, Caucasians, African Americans, Asians, Hispanics, one student from the Philippines, and one student from Malawi. Two of the Asian students were new English learners and could not read English very well. Books available on audio or Mp3 were purchased so that all students could benefit from the books. We have over five hundred titles of the most requested books on audio CD and we have about eighty titles in MP3 format. We are continuously adding to both audio formats.

Students were surveyed again at the end of the year to make sure we had met their needs and to make changes if needed for the next year. All of the surveys came back positive. A few had suggestions of different snacks and different incentives. Some will be doable and some will not.

*Findings*

After surveying and interviewing students informally, reviewing current studies and articles on book clubs for recreation, a plan of action emerged. At the top of the list was giving students the opportunity to read, make it fun, add incentives, have lots of snacks, have

fundraisers to pay for all of the activities, and promote, promote, promote.  Who knew that if you purchase graphic novels, the books would fly off of the shelves six at a time?  We plan to conduct surveys more often to keep the media center abreast on the interest of our students. A suggestion box is located at the circulation desk for wish lists from students and staff.

We kept lots of incentives on hand such as local movie tickets, which we buy cheap at a local credit union.  We also have candy for correct answers occasionally.  Where does the money come from for all of this?  This year the kids sold candy.  We also had a book fair at a local bookstore.  We have an in-house supply of fund-raising candy at our bookstore, and although only one organization can sell per week, we were able to pick up weeks that other groups did not want.  With over 3,000 students in our school, we did really well.  Our district is very generous with our library budgets, so we are lucky in that we are able to get the resources that we need.  If a student or teacher needs something right away, we occasionally run to our in-house book store or to a local store and buy it.

Also it is important to provide an array of reading materials in various formats so that all students can be successful.  Audio books, PDA's, MP3's, and e-books give students who need these formats an equal opportunity to be successful, especially our large population of ENL students.

Students, mostly boys, that I had never seen before, started utilizing the media center.  We began arranging other books we thought would be interesting to boys in the area of the graphic novels, and they started reading these novels, also.  Next, kids asked us to start a graphic novels club, and we did.  This club was populated by word of mouth.  It became a swap meet, and students started bringing in their own graphic novels and sharing and exchanging with others.  And yes, students were having fun!

Allowing students to lead their own book clubs gave them power and a sense of ownership.  Our students decided what book to read and chose their own activities to go with each book.  They even chose how long we spent on each book and what snacks we would have at each meeting.  Studies back up this method.  Creating activities in case students forget their activity is also key if the book club is to run smoothly.

The use of graphic organizers makes connections explicit and helps struggling readers to see a visual representation of the characters and/or plot.  Our use of book talks exposed students to a variety of books that were outside of what they would normally read.  During The BD Reading Club, many of the Elliot Rosewater List books were book-talked.

The biggest surprise in this project was how the graphic novels took off.  The books barely made it to the shelves before there were a line of students, many of whom had never visited the media center before. They were all ready to take six at a time.

The second surprise was how focused the students were in structuring the activities for their book club.  Not only did they discuss the books, but they also came up with great activities to go along with each selected book.  I also started receiving book reviews on my desk from students who wanted me to know about a "cool book" they were reading.

The benefit for the media center is that now we know many students by first name.  Students feel we are more approachable and will talk to us about books they recently read.  Our media center is abuzz with activities that help with the overall goal of the school, to

increase student achievement.  And lastly, we are creating life-long readers who will develop vocabularies that will allow them to be successful in all of their academic endeavors.

I have been asked by students to have a poetry club next year.  I am looking forward to reading poetry, as I read all of the books from all of the clubs, with one exception.  Although I love to read most books, I draw the line at graphic novels.  It is definitely a student-led activity.  All of the clubs create an environment where the library media center is considered a "cool place" to be and where reading is equally "cool."

But what about our hypothesis of increasing recreational reading at our school, did we make it?  The answer is yes.  Due to this action research project, we have seen an increase recreation reading and an increase in use of the library by 30% in six months.

Students still gravitate to the open computers, but now they are actually asking us about authors or titles of books.  Our circulation numbers are up, especially in our non-fiction area. Our library staff is even modeling reading by spending at least fifteen minutes each day reading a book or magazine.

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*Biographical Notes*

Kathy Hicks-Brooks is currently the head media specialist at Ben Davis High School in Indianapolis, Indiana. She has two teenage sons. She holds national board certification in library media.

## Statement of Originality

**Appendix A**

Pre-Program Survey Administered to Randomly Selected Students in Grades 10-12
September 2008

In order for us to purchase books you will read, we would like you input.
Please fill out the following form and leave it in the box at the circulation desk.

1. Name _____
   Not required
2. Grade _____

3. Male _____    Female _____ check one

4. What genre of books do you like to read? _____

5. Who is your favorite author? _____

6. How many books have you read this year? _____

7. Do you read for recreation? _____

8.  Do you think reading is a "cool" activity?

9. Would you be interested in joining a book club? _____

10.  What books would you suggest we buy?  Name/Author

**Appendix B**

# Media Survey Results
## 112 Completed Surveys
### Note: There were about 45 incomplete surveys that we did not count

| Grade | Sophomore | Junior | Senior |
|---|---|---|---|
| | 49 | 44 | 19 |

| Sex | Male | Female |
|---|---|---|
| | 62 | 50 |

| Read for Recreation | Male (yes) | Male (no) | Female (yes) | Female (no) |
|---|---|---|---|---|
| | 2 | 60 | 35 | 15 |

Top 5 (Many selected more than one)

| Genre | Sci-Fi | Romance | Biography | Fiction | Graphic Novels |
|---|---|---|---|---|---|
| | 23 | 56 | 48 | 51 | 72 |

| Reading Is Cool | Male (yes) | Male (no) | Female (yes) | Female (no) |
|---|---|---|---|---|
| | 8 | 54 | 35 | 15 |

| Novels Read This Year | None | 10 or less | 11-20 | 25 or more |
|---|---|---|---|---|
| | 11 | 64 | 27 | 10 |

Most did not have a favorite author

Suggested Books/Magazines

Top 5
1. *Twilight*/ Stephanie Meyer
2. *Bleach*/ Graphic Novel
3. *Game Informer*
4. *Black Cat*/Graphic Novel
5. *Fruits Basket*/ Graphic Novel

Would you like to join a book club?

| | Male (yes) | Male (no) | Female (yes) | Female (no) |
|---|---|---|---|---|
| | 7 | 55 | 23 | 27 |

## Appendix C

Sample Ben Davis Reading Club Agenda
February 2008

Ben Davis Reading Club Agenda
February 20, 2008

<u>Book Selection</u>
Dollmage by Martine Leavitt

3:05 – 3:15 Turn in candy money

3:15 -3:30 (Whole group) Review of the last 50 pages of Dollmage

3:30 – 3:45 (Whole group) Take Reading Counts Quiz on Dollmage

3:45 - 4:00   (Small groups) Activity – shared by S. Moyer

4:00 – 4:15 Snack and discussion of upcoming  field trip

4:15 – Late bus pass

4:25 Dismissal

Agenda for next meeting due by 2-25-08

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*Biographical Note*

Dr. Cynthia Houston is an assistant professor in the Library Media Education program at Western Kentucky University. She has been involved in international school library collaboration since 2004. For more information on the ELALC-SEK project visit the project web site at http://edtech.wku.edu/~chouston/spain/elalc.html


# Statement of Originality


This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Lithuanian school libraries today: Problems and perspectives

Irena Kryzanauskiene
School library manager
Vilnius Antakalnis secondary school
Chairman of School department
Lithuania Librarian Association
Lithuania

*The situation of Lithuanian school libraries and the status of librarians are ambiguous, because libraries are financed by Ministry of Education and Science, but legal acts, except the laws, are organized by Ministry of Culture. School libraries are very important among other libraries in Lithuania according to the latest statistic data of Lithuania. In 2000 the school libraries computerization started and in 2004 they were instilled with a simplified version of the Lithuanian Integrated Library Information System (LILIS) – so called Information System of School Libraries (ISSL).The questioning of school librarians was done in 2006-2007 years. Analysis of questionnaires showed that there are some problems in activity of school libraries. The Standard of Digital Literacy of School Librarians (SDLSL) has contradictory estimations. It contains extremely high requirements for school librarians in the sphere of ICT use. Lithuania school librarians do not have a professional association. Members of IASL in Lithuania are only separate school librarians. The methodical help to school libraries should be given by the Municipality public libraries but the help is given not very often. In some towns more active and experienced librarians organize methodical groups, give seminars for those, who are less experienced.School librarians take part in different state actions. Year 2008 is announced to be Reading year in Lithuania. Reading year is stage of Reading Promotion Program confirmed by the Government.*

*Lithuanian libraries, Reading promotion, Reading Year*

## The legal situation of Lithuania school libraries and the documents, which regulate the activities of school librarians

Lithuania is one of the three independent Baltic States and belongs to the region, which is referred to as Central and Eastern Europe.

The legal status of school librarians in Lithuania is ambiguous, because libraries that are established by the state or of the Municipalities are financed by the Ministry of Education and Science, but legal acts, except the laws, that school libraries have to use, are organized by the Ministry of Culture. The Ministry of Culture, which along with the Library Council determines the library development strategy: management and financing of library programs and research subjects; co-ordination of the activity of Lithuanian libraries are supervising adherence to the Law on Libraries and other documents regulating library activity.

The Ministry of Education defines their specific requirements for school libraries but I am going to talk about them later in greater detail analyzing the following documents and the role of library at school. Only three documents are prepared by the Ministry of Education and Science: „**School Library Conception**"**(2001)** and „**Standard of Digital Literacy of School Librarians** "(further - Standard**) (2002)** and **„Recommendation for the description of librarians' duties" (2005)**.

Two first documents have not been fully realized. The realization plan for the first document (Conception) has remained only an intention. And the contradictions of the realization

of the second document (Standard) will be presented further. The activity of school libraries, oriented to help the education process is organized by the order of the school headmaster documents: description of librarian's duties, the rules of using school libraries and the completing of the funds of textbooks, the rules of inside work.

The work of libraries is regulated by the highest levels of all common types of legal acts: the international and national acts, rules and regulations. The highest level of legal acts in Lithuanian is the Law of Libraries, by article 12 part 2 says, that school library has to work in the state higher, vocational and comprehensive school, 11 article says that school (except high schools) library is the structural subdivision of this school, the school community is served. Also Labor Code, which is used for all workers and Constitution, which is in force for all citizens.

School librariansare not considered pedagogical workers; therefore the order of improvement of pedagogical skills and certification is not applied to them. The salary is paid without consideration of the librarian's qualification and work experience. Unlike in other Baltic states such as Poland, Latvia or Estonia, where school librarians are considered to be teachers, in Lithuania school librarians do not have the status of teacher. Formally they cannot participate in educational activities though they are considered as a teachers in such documents as **„School Library Conception"(2001)** or „**Standard of Digital Literacy of School Librarians** "(**SDLSL) (2002).** The "Strategy of Instillation of Information Communication Technology (ICT) in Education of Lithuania" defines a school librarian as a specialist of education too. In spite of everything many of school librarians, according to their education as teachers (about 70%), they organize different lessons, for formatting information skills already today, but they cannot-participate in the educational process at all.

SDLSL can also have contradictory estimations. It contains extremely high requirements for school librarians in the sphere of ICT use. Now we are going to discuss the main regulations of this document and its evaluation.

## 1.1. The Standard of Digital Literacy of School Librarians of Lithuania (SDLSL)

1.1.1. General description:
The Standard of Digital Literacy of School Librarians decides upon the competences that school librarian should have in order to use digital recourses for developing students' information skills and serving readers.
1.1.2. The school librarian must:
- Know the national conception of the development of information society
- Know the role of the school library in the formation of information society in Lithuania.
- Understand social and ethic specifics of using ICT for education.
- Know (and be able to apply) strategies and techniques of integrating ICT into education process and library work.
- Have the qualification, described in the teachers' digital literacy standard.
1.1.3. The Standard is based on:
- The Strategy of Instillation of information-communication technology in education in Lithuania, where the school librarian is defined as an educational specialist. The conception of using information and communication technology in education; the conception of libraries
- The Standard of Digital Literacy of Teachers' is supplemented with the requirements for librarians.

- Curriculum of European Computer Driving License – ECDL

The term "digital literacy" is used in the wide sense of meaning. It means not only being able to use the computer but also the ability of using ICT in searching for information, storing and processing (handling) it.

According to the Standard every librarian should have 80 hours (2 credits) of education in computer science and IT; 40 % of the time should be spent on individual work, 1/3 of the topics – on the technological part.

1.1.4. Calls for the competence
The object of the Standard is the competence of the librarian in the field of information and communication technology.
1. The school librarian must be able:
   - To use software necessary for library work;
   - To use digital recourses and data base;
   - To use qualified Internet service;
   - To use electronic publications (books, magazines, dictionaries, encyclopedia, etc.);
   - To use ICT in every day work: create Internet websites and other computer documents;
   - To develop information culture in the local (school) community.
2. Improving professional skills and sharing experience, a librarian must know:
   - The possibilities of professional development using ICT;
   - The strategy of modernizing libraries, understand electronic and virtual library;
   - The importance of Internet, information resources of the state, information systems of the state. Understand the forms and standards of bibliographic information creation and spread on the Internet.
   - The using peculiarities of electronic and Internet issues.
   - UNIMARC format and how to use it describing documents.
   - Legal aspects on information and data protection.

In my opinion the Standard of Digital Literacy of School Librarians was approved by the Ministry of Education and Science in 2002, but still the competence of many school librarians does not satisfy the requirements of the Standard. The reasons are:
1. They are not taught how to use databases, or they don't have them at all.
2. The Educational part of the Standard is impossible to implement because librarians are not teachers and many of them cannot participate in teaching.
3. The requirement of 80 hours of compulsory work is not in action, though 6 years have passed since the Standard was confirmed.
4. The requirement for librarians to have the qualification, described in teachers' digital Literacy Standard is baseless as librariansare not regarded as teachers.

## 1.2. Description of Duties of Librarians

Description of Duties of Librarians (further – Duty Description) is the main document directly regulating school librarians' activities. A librarian must do all work defined in the description of duty and he/she can refuse to do what is not mentioned in the Description. This document is very important for the working person (after the Job agreement). The Ministry of Education and Science has certified the Recommendations for the preparation of Duty Description, which help school leaders certify duty descriptions for their school librarians, taking

into consideration the needs of their school. Further on I am going to analyze this document in greater detail, because I participated in the working group, preparing these Recommendations.

## Methodical Recommendations for the description of librarian's duties

The activity of school library is guided by the following documents:
- Law on Libraries
- Law on Education
- Labor Code of the Republic of Lithuania
- Legal acts of the Government
- Regulations of the Ministry of Education
- The Description of duties of librarians

The school library organizes its work following:
- The Statute of school library
- The rules of library
- The Statute of protections of funds
- The different Standards of librarianship

The main aspects of the school library activities are:
- Collection development
- Provision materials as sources of information
- Planning and analyzing the work of libraries
- The account of funds, processing and making catalogues

The description of duties of librarians should consist of the following parts:
- General Principles
- Requirements for the librarian
- The functions and responsibility of the librarian
- The rights and obligations

## General Principles

It is necessary to state the goals of librarian's work:
1. To participate in the educational process and help to develop students skills in finding information
2. To look for new methods of cooperation with the teachers and students
3. To help students to study on their own using informational surrounding
4. To improve the service of readers and to cooperate with other institutions
5. To instill the Information System of School Libraries (ISSL)

## Requirements for the librarian or library manager

- To apply for the position of a librarian or a library manager can a person who has university or specialized education in librarianship and the qualification of a librarian
- A person should have good computer skills, be able to communicate and cooperate

## The functions and responsibility of the librarian

- To plan, analyze, sum up, evaluate the work of the school library and give accounts to the head of the school
- To make annual account, present it to the head of school and other institutions

- To compile all necessary recourses for education process
- To fill and take care of all the documentation
- To make the rules for library use
- To organize the funds according to the universal decimal classification(UDK)
- To subscribe, process and store the periodicals
- To participate in the development of students' information skills
- To provide recourses for the classroom teachers and staff
- To teach how to use open funds
- To decide upon the damage done to the library and make to pay for it
- To see that everyone keep order in the library and protect funds
- To make information files on actual topics
- To participate in implementation of the school program
- To participate in the activity of the school Board
- To fulfill duties according to the legal acts and laws
- To be responsible for the reliability of the data and information provided and for the quality and development of funds
- To fulfill duties stated in the contract

## The rights and obligations

The librarian or library manager has the **right:**
- To get all legal acts and information concerning library work
- To get support and consultations from higher institutions
- To have good working conditions and environment
- To develop qualifications for not less than 5 days a year
- To refuse to do activities which are not in the Job Agreement
- One day a month not to serve consumers but to clean, tidy, disinfect and do other things in the library
- One hour a day devote to preparation and revision of periodicals

The librarian or library manager is **obliged:**
- To keep to the contract and the description of the duties of the librarian
- To fulfill other duties and obligations according to the Labor Code and other legal acts

### 2. The place of school libraries among other Lithuanian libraries and their role in public organizations and at school.

## 2.1. School libraries among other Lithuanian libraries and their role in public organizations.

School libraries are very important among other libraries in Lithuania according to the latest statistic data of Lithuania. They form more than 43% of all libraries. 28,5% of all libraries consumers in our country are the consumers of school libraries. 2007, 67% of all country's libraries had computers, and the access to the Internet – 59,5%. The computerization of school libraries exceeds the average of the country: 81% of all schools had computers, and the access to the internet – 74,7%.We should emphasize the fact that only the computerization of universities and colleges is in a better condition than in school libraries.

School libraries have their representatives in the Library Council of Lithuania, which acting alongside the Ministry of Culture as an expert and consultant, deliberates on the most important issues of library activity, submits proposals to the Ministry of Culture and the Government of the Republic of Lithuania concerning the strategy of library development, library scientific programs and their funding, distributes budget funds allocated for library development, assesses the precision and quality of documents and directions in scientific research and other related activities. The Library Council of Lithuania is a non-governmental organization. Members of IASL in Lithuania are only separate school librarians. Now school library enthusiasts are united by the department of School in the Lithuanian Librarians' Association (LLA). Lithuania school librarians do not have a professional association, because nobody wants to volunteer services. Ten years ago the association was established, but its activity stopped because of the indifference of the most participants. The aims of this association are:

1. To raise the reputation of librarians in Lithuanian society;
2. To represent the social and professional rights of its members;
3. To initiate and provide in-service training of librarians;
4. To petition the Lithuanian government and authorities for better recourses and equipment for libraries;
5. To gain experience in the world practice of librarianship;
6. To ensure the utmost professionalism in its members.

There are about 80 members in School Department of LLA, who talk with state institutions if the librarians have any questions and in this way represent the society of school librarians.

## 2.2. The role of library at school.

School libraries create educational environment in their institutions and they have to take a portion of responsibility for developing information skills. The main aim of the libraries is to satisfy the needs of their users and to improve together with the society's development. We can pick out three phases (stages) of the library development:
- library as a storage of information resources
- library as a service supplier
- library as a participant of the educational process

The other aims are:
- ✓ to support and expand the aims and objectives of the school;
- ✓ to develop children's reading skills, encourage the joy of reading, stimulate learning and using libraries all their lives;
- ✓ to create good conditions to acquire skills in searching information, selecting and using it, to gain experience and develop their imagination

Evaluating and accrediting schools, libraries' activities play an important role. **The examination of school libraries seeking to see if they are ready to work as information centers, will be carried out in these aspects:**

1. **School library's changes:**
1.1. libraries should be ready for the realization of module and optional subject teaching;
1.2. libraries participation in educational process (realization of educational plans, improving the quality on independent learning, cooperation with teachers);
1.3. development of students and teachers' information skills (teaching how to use a library, computer programs, searching for information, estimating and analyzing it;
1.4. library's participation in projects (at school and outside);

1.5. available library services (answering the requests using all sources of information, making lists of literature, helping students to choose literature for self- studying, helping teachers searching for the methodic literature of their subjects.

1.6. additional services of the library (copying, searching in the data base, possibility to use personal computers, video and audio equipment, international librarian's subscription (ILS) services.)

**2. Modernization of the school library:**

2.1. Provision with audio, video, TV, copying techniques;

2.2. Computerization of the library (how many computerized working places are in the library and reading room);

2.3. Possibility to use the Internet (connection with the other educational institutions and libraries);

2.4. Possibility to use e-mail;

2.5. Automation of library work (program ISSL): computer catalogue, completing, reader's registration etc.);

2.6. Magnetic and electronic information medium (videotapes, audiotapes, CD);

2.7. Systematized funds of educational computer programs.

2.8. To ensure access to all virtual sources of information;

2.9. To create virtual surroundings, create and diffuse various documents.

**3. Filling in the documents of school library funds and work account:**

3.1. Library fund inventory book;

3.2. Library fund general registration book;

3.3. Library work's diary;

3.4. Reader's card if the service is not computerized.

**4. School library (workers) staff:**

4.1. Number of staff members;

4.2. Education of workers:

4.2.1. librarian's (higher /university, college) education;

4.2.2. teacher's (higher /university, college) education;

4.2.3. another education.

**5. Library surrounding:**

5.1. Reading room in the library or separate;

5.2. Separate reading rooms for students and teachers (how many of them);

5.3. The working places of librarians are computerized;

5.4. There are about 20 working places for students and teachers;

5.5. Computers are connected to the system, the library is supplied with printers, scanners and CD recording equipment etc.

**6. Regulation of the textbooks fund includes:**

6.1. The registration of textbooks;

6.2. Withdrawal of the textbooks;

6.3. Compensation for the lost textbooks;

6.4. Buying textbooks;

6.5. Delivery and collecting of textbooks.

**7. Library work analyzing and planning.** What educational effect does the library have on school community or on society in general? There are hardly any estimation criteria or any other means to measure it. Various questionnaires are organized, analyzed and conclusions are made

but not more. School library activities are usually planned for a year (such plan is compulsory). Plans may be general (for example, 5 years) or detailed (for a shorter period) but these are not compulsory.

## 3. Lithuanian school libraries 2006-2007 (questionnaire research)

**Questionnaires were edited by: Rita Tadarauskiene**
**Presentation was prepared by: Irena Kryzanauskiene**

Lithuanian Librarians' Association (School department) applied the Ministry of Education and Science asking to help solve the problems. First of all they decided to analyze the real situation of the libraries in our republic. It was the first research ever carried out. The questioning of school librarians was done in the years 2006-2007. Analysis of the questionnaires showed that there are some problems in activity of school libraries.1713 questionnaires were received and analyzed.

# Type of school



**Percents**

| | |
|---|---|
| primary | 6.8 |
| principal (1 – 10 forms) | 32.2 |
| secondary | 37.7 |
| gymnasium | 12.3 |
| others | 11 |

# Number of students at school



| | | |
|---|---|---|
| ■ | 0 - 200 | |
| ■ | 200 - 300 | |
| ■ | 300 - 500 | |
| ■ | 500 - 800 | |
| ■ | 800 - 1000 | |
| ■ | 1000 - 1500 | |
| ■ | 1500 and more | |

Percents

- 0 - 200: 16.4
- 200 - 300: 24
- 300 - 500: 14.7
- 500 - 800: 17.8
- 800 - 1000: 13.4
- 1000 - 1500: 11.7
- 1500 and more: 2
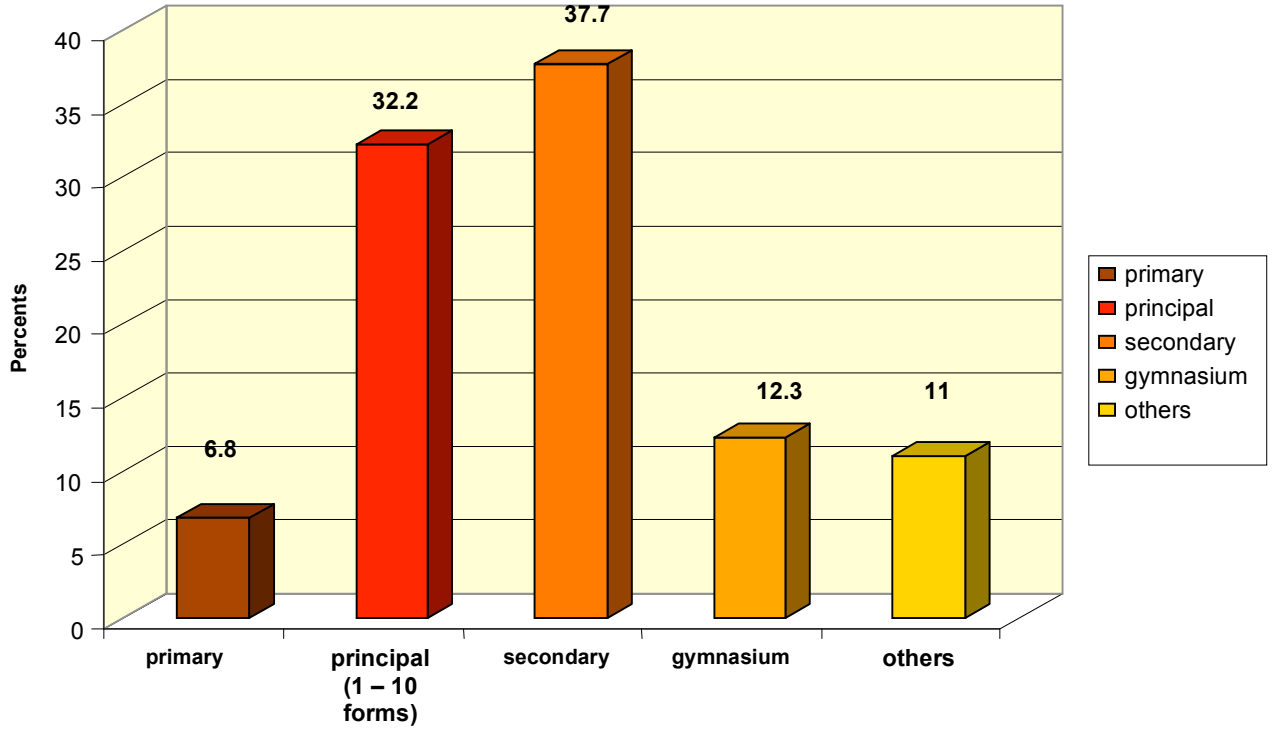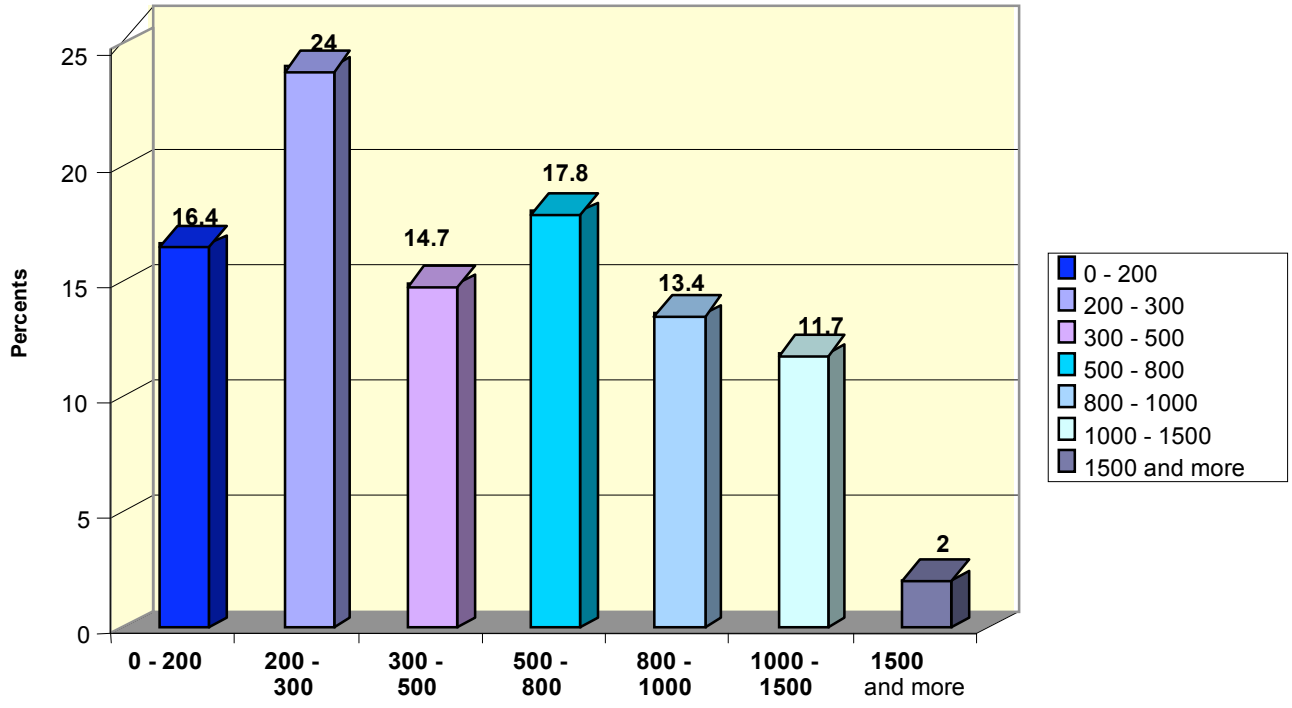
# Number of computerized working places in the library



Chart showing distribution by number of computerized working places:

- **0**: 14,2
- **1 - 5**: 57,5
- **5 - 10**: 21,8
- **10 - 15**: 4,0
- **15 - 20**: 1,1
- **20 and more**: 1,4

Y-axis: Percents (0, 10, 20, 30, 40, 50, 60)

Legend:
- 0
- 1 - 5.
- 5 - 10.
- 10 - 15.
- 15 - 20
- 20 and more
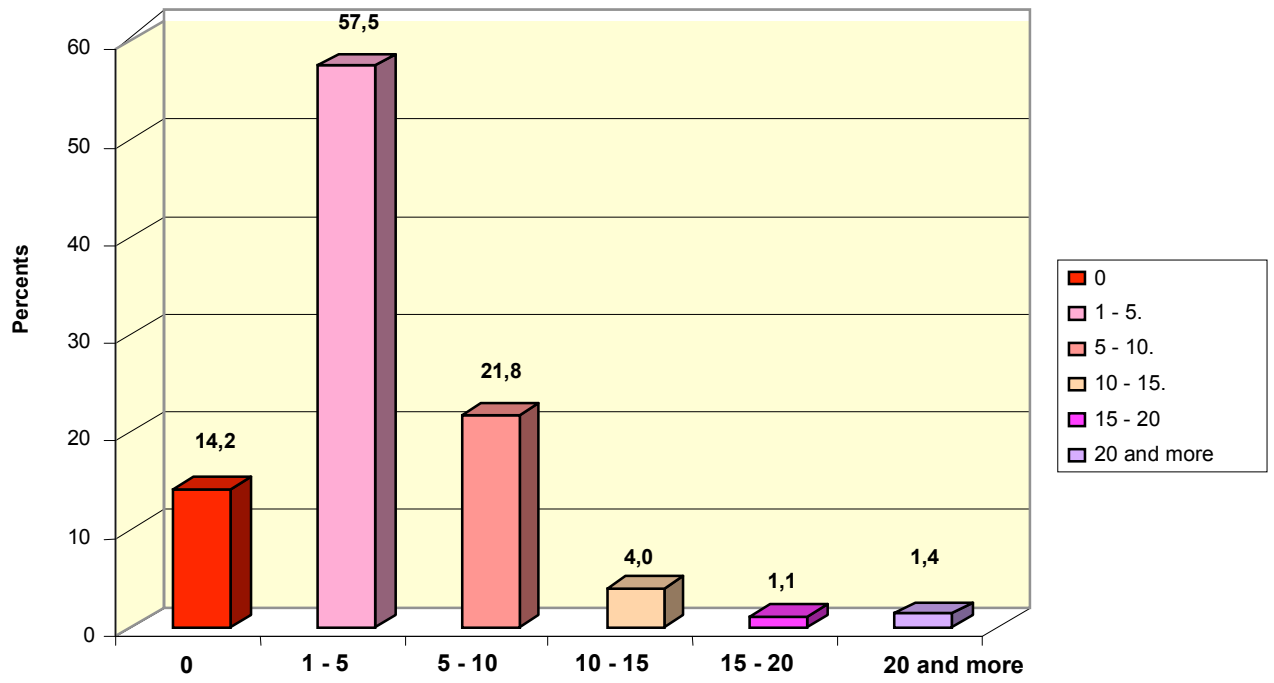
# Number of people working in the library



| | | | | | |
|---|---|---|---|---|---|
| | | | 41,2 | | |
| | | 30,2 | | | |
| | 21,9 | | | | |
| 2,9 | | | | 2,7 | 1,1 |

Percents

0   0,5   1   1,5 - 2   2,5 - 3   3 and more

Legend:
- 0
- 0,5
- 1
- 1.5 - 2
- 2.5 - 3
- 3 and more
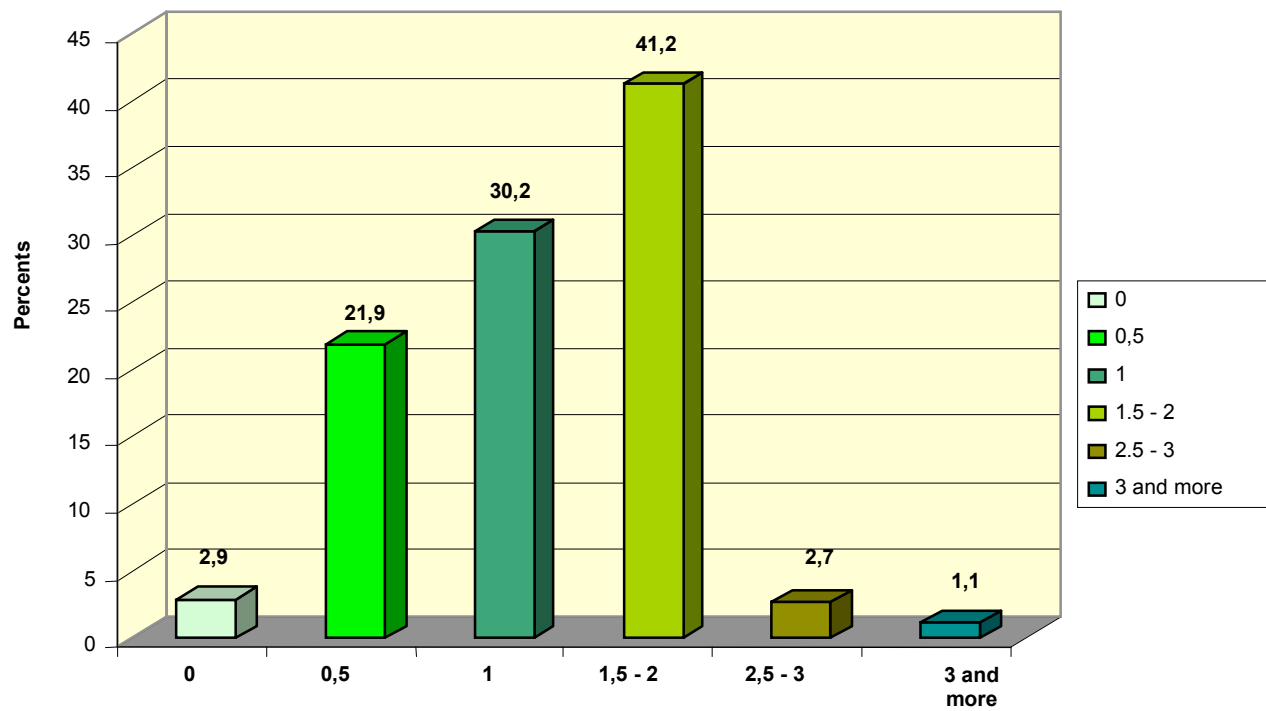
# Numbers of reading-rooms at school

**Percents**

Legend:
- no
- one
- two
- Three and more

| Category | Percents |
|----------|----------|
| no | 14,2 |
| one | 71,5 |
| two | 10,9 |
| Three and more | 3,4 |

# Age of the librarian



| Age group | Percents |
| --- | --- |
| 20-30 | 9 |
| 30-40 | 23,1 |
| 40-50 | 37,1 |
| 50-60 | 23,7 |
| 60 and more | 6,9 |
| not answered | 0,2 |

# Education of the librarians

Percents

| | |
|---|---|
| | 59,5 |
| 60 | |
| 50 | |
| 40 | 33,6 |
| 30 | |
| 20 | |
| 10 | 6,9 |
| 0 | |

Secondary / high     Further/ college     Higher / unuvercity

- secondary
- furthe
- higher

# Qualification of the librarian (speciality)



A bar chart titled "Qualification of the librarian (speciality)". The vertical axis is labeled "Percents" and ranges from 0 to 50.

| Category | Percents |
|---|---|
| librarian | 33,9 |
| teacher | 46,5 |
| another profession | 18,3 |
| not answered | 1,3 |

# Profile of the teachers working in the library

**Percents**

| | |
|---|---|
| ■ | humanitarian |
| ■ | social |
| ■ | exact sciences |
| ■ | technological |
| □ | not answered |

64

16,4

9

5,8

4,8

70

60

50

40

30

20

10

0

**humanitarian**　　　**exact sciences**　　　**not answered**
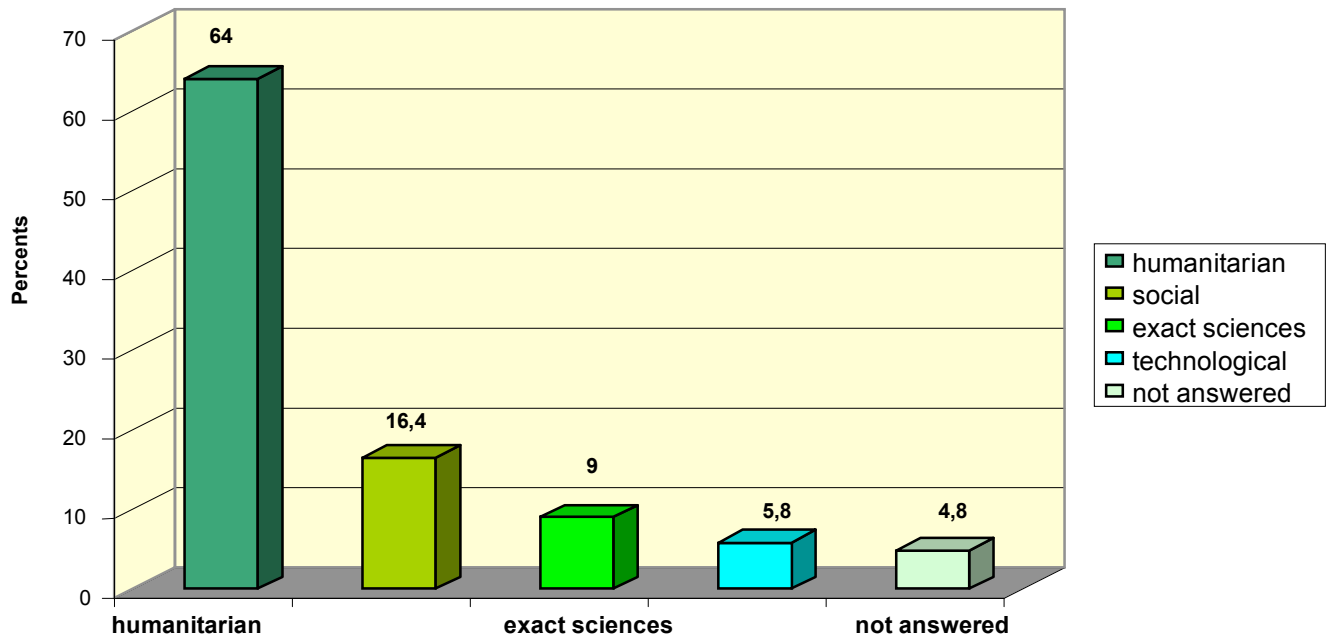
# Salary coefficient of the librarian



| | Percents |
|---|---|
| 4 - 6. | 14.9 |
| 6 - 7. | 24.5 |
| 7 - 8. | 31.2 |
| 8 - 9. | 18.8 |
| 9 - 10. | 7.5 |
| Not answered | 3.1 |
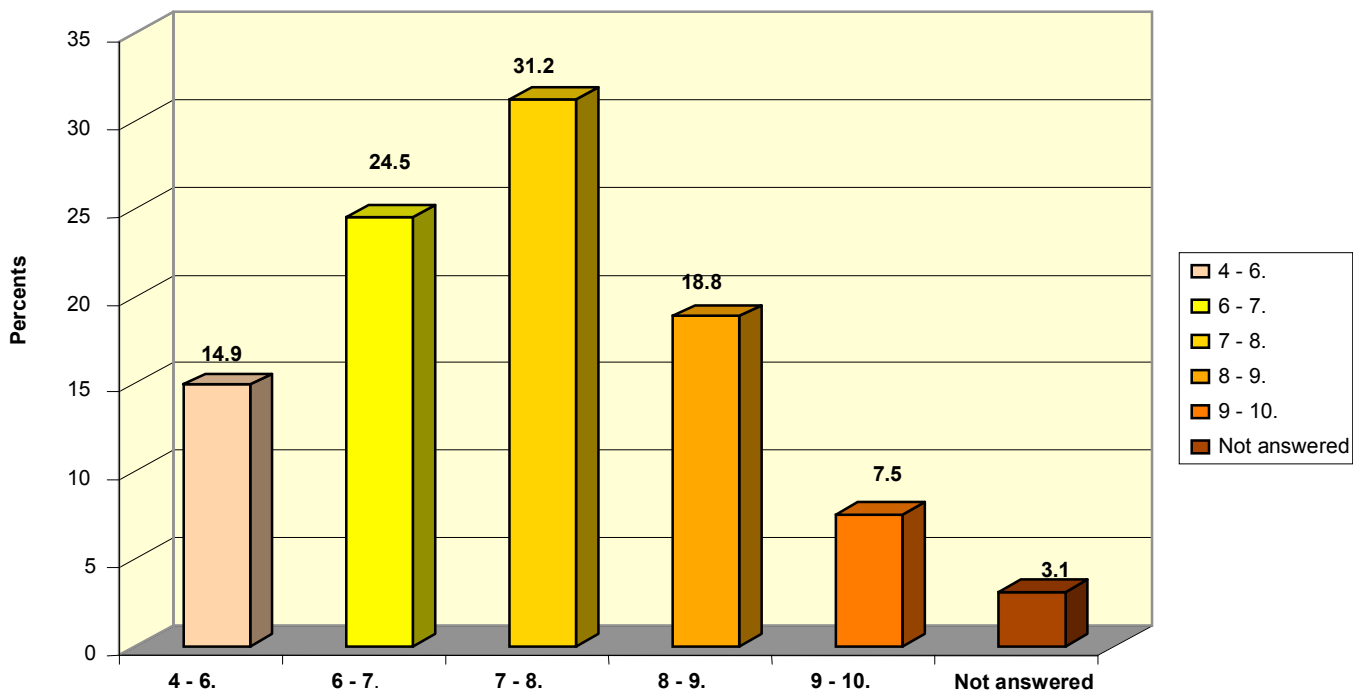
# Should librarians post be equal to teachers?
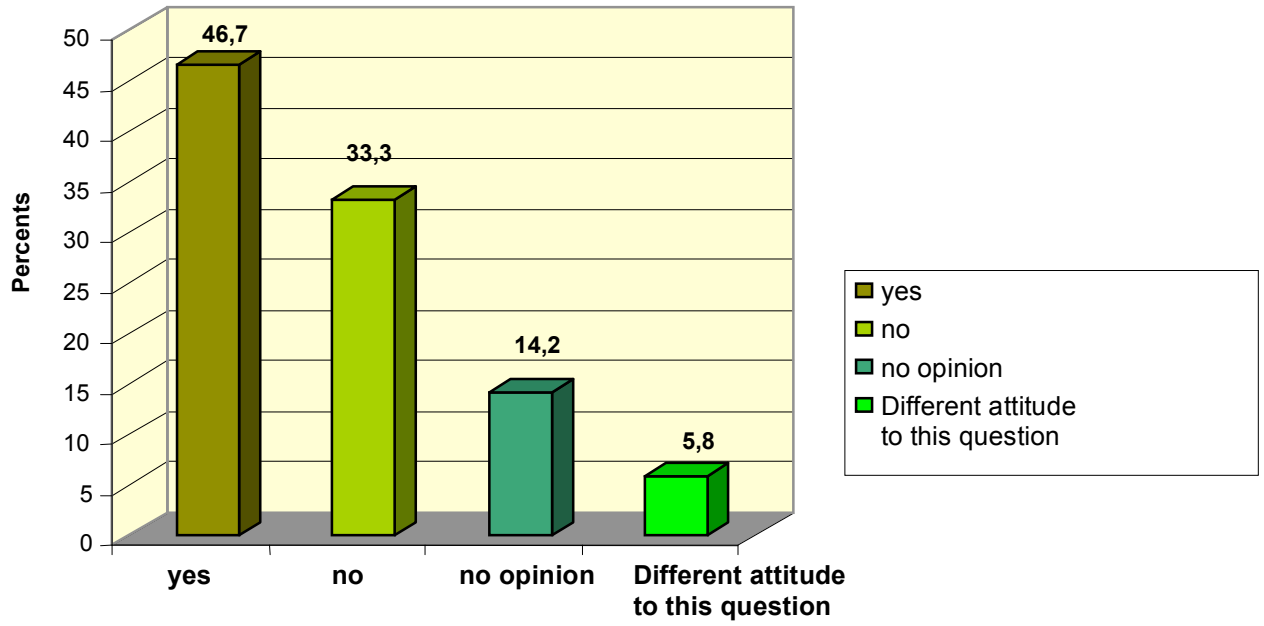
# Who regulates the fund of textbooks in your library?

**Percents**

| | librarian | another employee |
|---|---|---|
| | 96,1 | 3,9 |

- librarian
- another employee
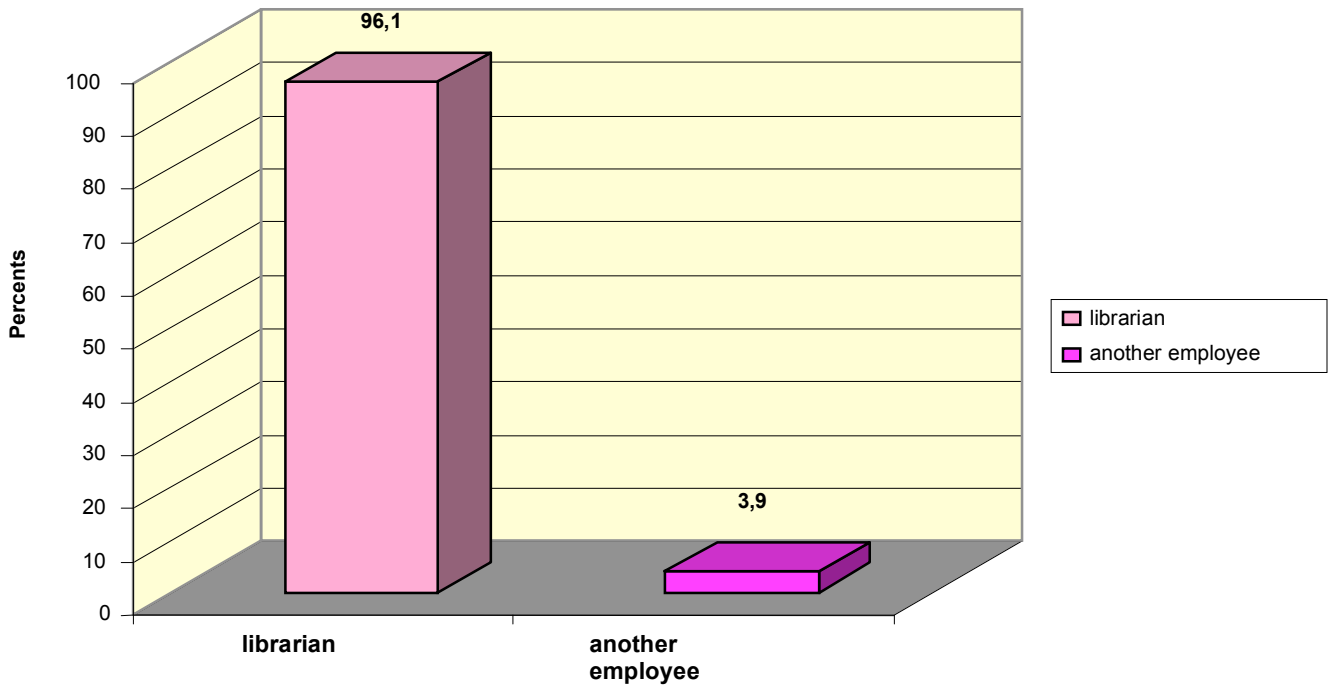
**Is a person paid for regulating the fund of textbooks?**
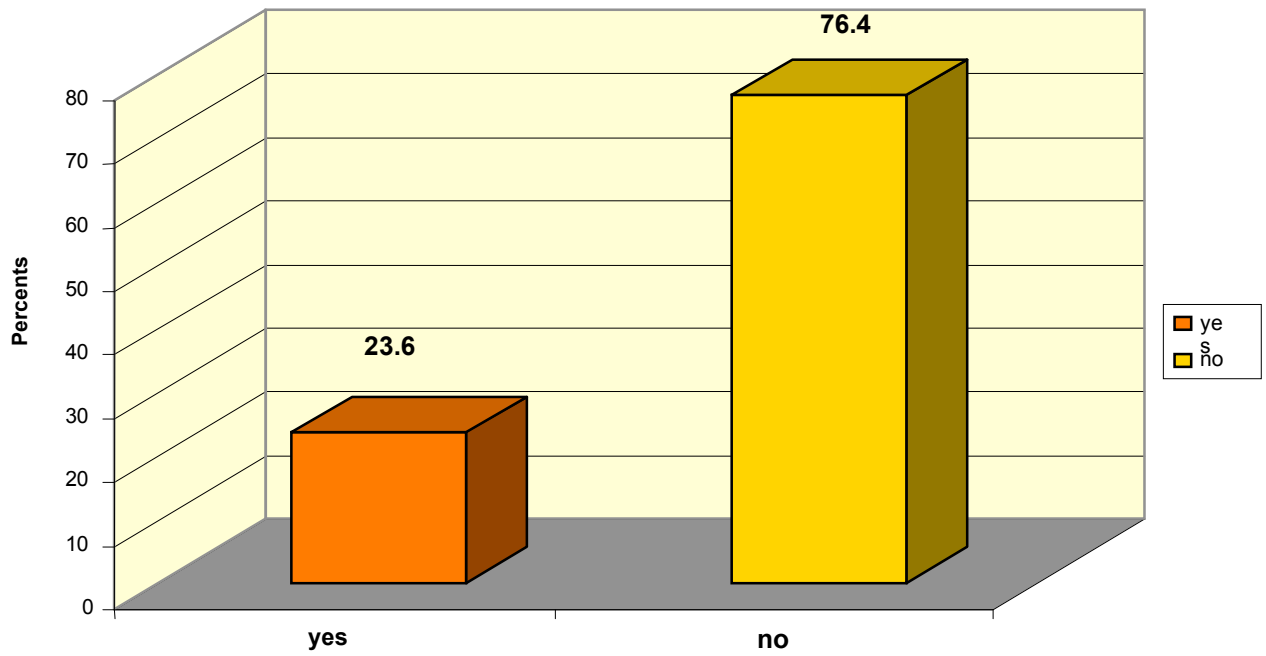
# Is School Libraries Information System available in your library?

**71,3**

**28,7**

Percents

80
70
60
50
40
30
20
10
0

yes                    no

- yes
- no

## What help (support) do you need in work?
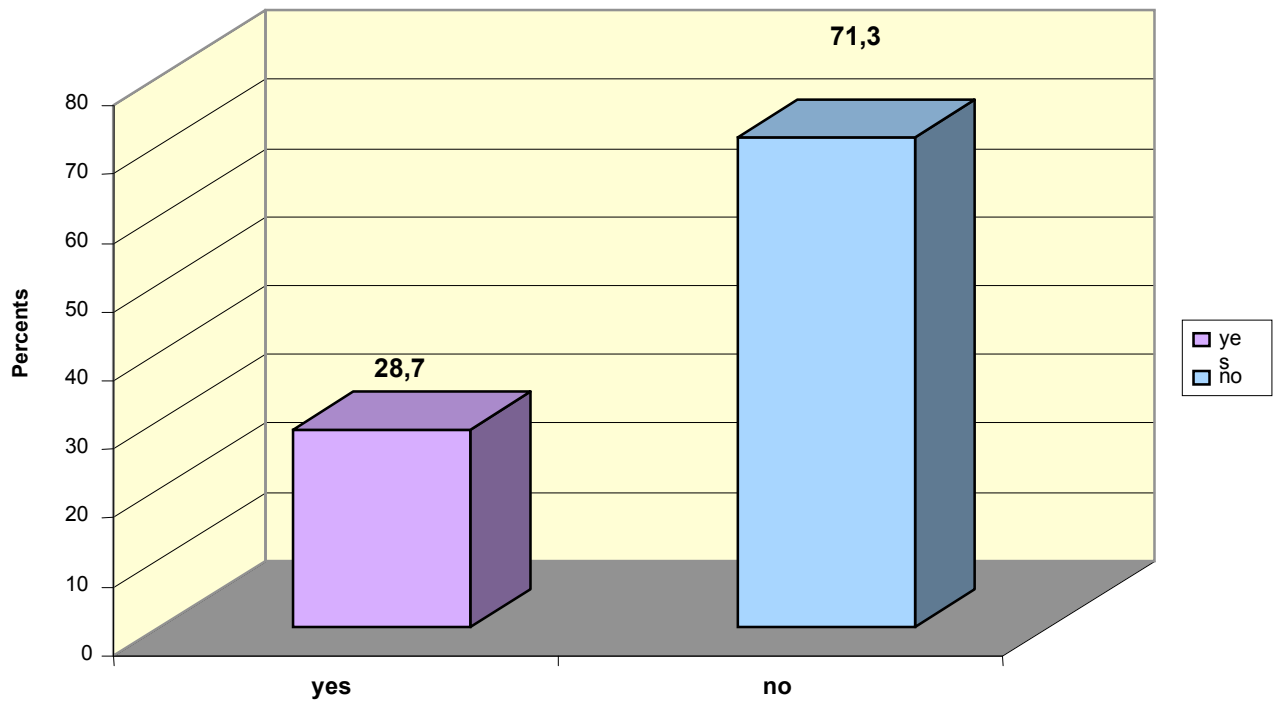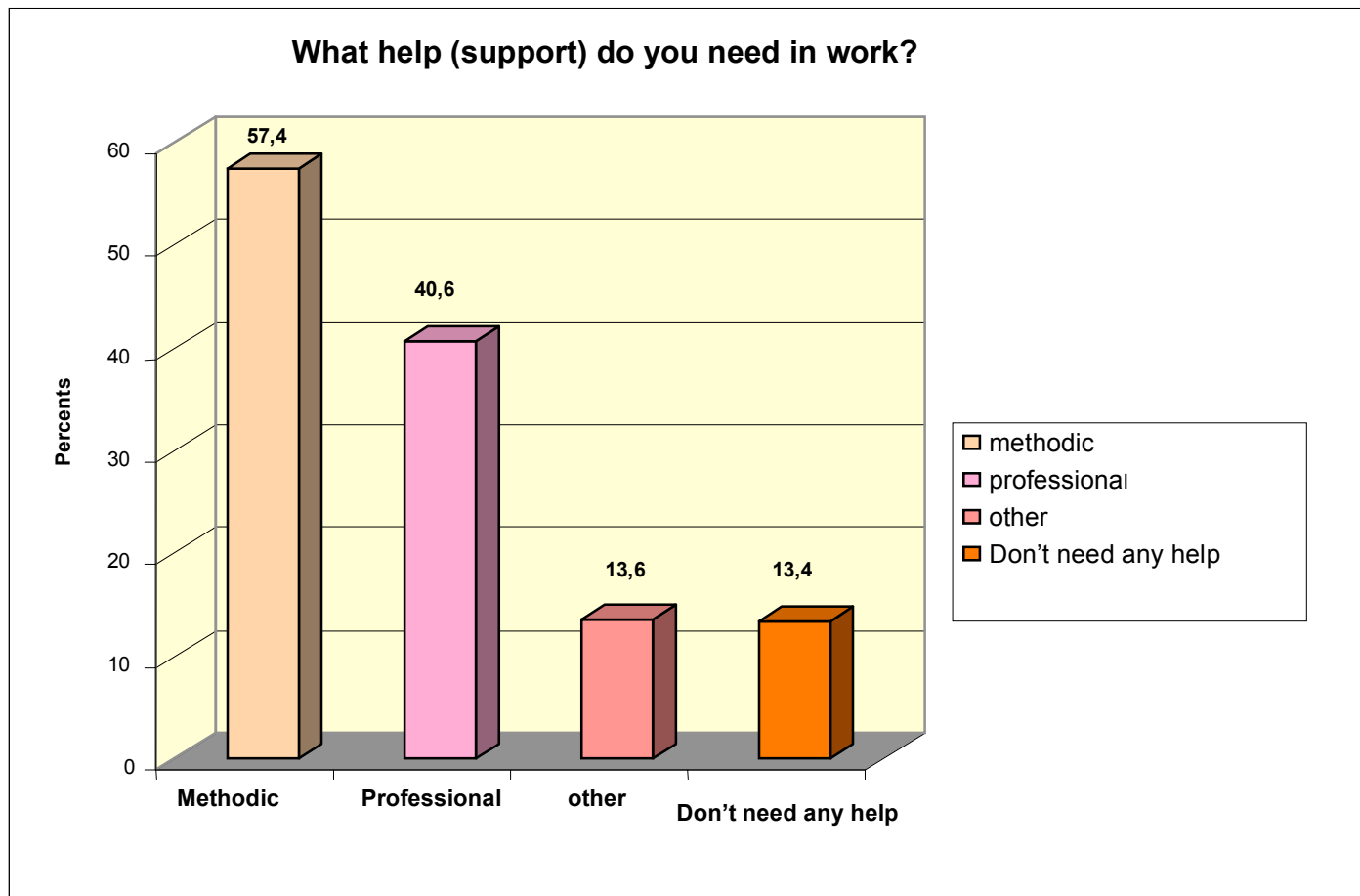


Analysis of the questionnaire shows that 243 schools do not have computers at all and only seventeen have twenty or more. ¼ (one forth) of those questioned do not have "real" librarians. Such schools use this method: I came, returned the textbook or book and left. It is characteristic of smaller schools, where teachers, having a certain number of lessons, work as librarians that are usually their second duty.

Over 40 percent of schools have only up to 300 students. Only 14 percent show, that the number of students at their schools is over 1000. The problem is that the number of the staff for school librarians was approved by the Municipality without taking into consideration the number of students and consequently the amount of work. For example, the Board of Vilnius Municipality approved only 2 staff members for a school library with a reading room. They did not take account the fact, that some libraries (especially those in big schools, where the number of students is 1000 or over 1500), have more than one reading room so two staff members are not enough. About 14% of all schools in our country have two or more reading rooms. They usually have separate reading rooms for teachers and students and one computerized reading room. There are only about 4 % of secondary school libraries that have more than 2 workers. That is why there are many cases when one librarian has to look after two or more reading rooms. 14% of school libraries do not have any reading rooms at all and the greatest number of school libraries has one reading room.

As for librarians' education, nearly 60% of the questioned have a higher education. Such numbers are caused by the fact that many teachers having higher education work as librarians. A great part of librarians (having librarians' certificate), have high (college, not university) education and that is not bad. But about 7% of the staff working in school libraries has only a secondary education, and their specialty has nothing in common with pedagogic or librarianship. According to questionnaires 33,9 % of real librarians (having this profession) work in school libraries, 46,5 % of school librarians are teachers (797), and the rest are people having different professions: engineers, technicians operators, cooks, builders, workers of culture, florists, agriculture specialists, social workers, managers, dancers and many others.

Such things would be impossible, if only librarians having higher (university or college) education or teachers having higher education could work in school libraries. This order was confirmed in the Secondary School Libraries Regulations, but now school headmasters are allowed not to pay attention to them. I think that abolition of school library regulations caused a lot of damage for schools. We cannot expect better quality in their work without raising qualification requirements for school librarians.

The representatives of Ministry of Education and Science maintained that librarians' qualifications are not regulated by the state (as are those for a doctor or teacher. That means there are no strict requirements for the education or the necessary competence. There are many librarians without special education working in public or university libraries as well. But the situation there is better, as people without special education work together with real specialists (professionals) and they successfully gain necessary competence in quite a short time. At schools there are very few possibilities to learn, to improve, because there is often only one librarian. It is impossible to expect high quality in such cases.

Answering the question "should a librarian's duty be equal to a teacher's duty?" 46,7% answered "yes" and 33,3 % answered "no." Theresa had a different opinion or no opinion at all. It should be mentioned that the negative answer "no" was given by the librarians (specialists). It is normal as the problem of changing qualification has not been solved yet.

The fund of textbooks is being looked after by librarian in most schools (96.1%). The biggest part of the questioned about the work with textbooks is not paid (76.4%) for that. The situation should be changed as working with textbooks requires a lot of effort and responsibility: besides processing textbooks funds librarians analyze teachers' opinion on buying new textbooks, prepare purchase documents, and communicate with publishing houses and Municipality. It should be noticed that according to"Recommendation for the description school librarian's duty" (approved by the Ministry of Education and Science) working with textbooks is considered to be additional work and it should not be included in the librarian's duty description. For additional work librarians should get extra pay, the amount of which depends on the agreement between the employer and employee. This fact demonstrates that the school librarian completely depends on the headmaster: he/she prepares the job description. If the headmaster chooses, he or she can include working with textbooks in the job duties; then they do not have to pay.

71 % of those questioned had not started using computer program ISLS for school libraries' automation (Information School Library System or ISLS). By the end of the year 2006 ISLS had to be activated in all schools, but only about 30 % of schools had it. The situation is really unsatisfactory. According to ISLS specification (a definition of the System introduction) school libraries had to be provided with computers and other equipment and offer consultations. Almost none of these have been done. The courses on ISLS in PPRC (Pedagogic Proficiency

Raising Centre) are not enough to start working with the automatic system. Nobody could give the advice. This problem has not been solved in time. In our opinion, in order to solve it, school librarians' methodic centre should be established where ISLS consultants could work constantly. Now ISLS 2 (a new version of the program) has been introduced and courses on this new version are going to be organized, but the methodic centre will not be established in the nearest future.

According to the survey (diagrams), librarians need methodic and professional help most of all. They also mentioned they needed legal and financial support. Strange, but it is true, that 13.4% of the questioned librarians didn't need any help. They may not understand what they should know.

To sum up the results of the questionnaire we can state that the main problems in the school librarians' work are: the lack of methodic help, lack of literature, shortage of funds, low salary of the librarian, difficulties with the introduction of the computer library automation system (ISLS), bad working conditions, hard work with textbooks, great amounts of work, additional work, shortage of staff (especially in big schools where the number of students is not taken into consideration), overcrowded reading rooms.

Scanning the data about the age of school librarians, optimism disappears. 68 % of them are over 40 years old. After older librarians' retirement we may experience the shortage of librarians, not only teachers'. Are young people going to choose a librarian's profession with such payment and such "perspectives"?

## 4. Methodical help for school librarians. A Methodic Group of Librarians and its activity sample.

The methodical help to school libraries should be given by the Municipality public libraries according to the Law of Libraries, but there are no necessary regulation acts and the help is given not very often.  The National Library of Lithuania (LNL) carries out the functions of the national methodological centre. It is the main centre of methodical help for school libraries too. LNL provides methodological assistance to Lithuanian libraries on library science, bibliographic and information issues and is the co-ordination centre for national bibliography, Lithuanian publications, state registration, information, library research work and methodological activity. LNL has the Centre of, but it would be better if we had a separate National Children Library as other countries of Eastern and Central Europe have. The problem is that the librarians working in distant towns and villages can hardly reach the Centre. Methodic help for school librarians should be provided by the Municipality public libraries, and this activity should be defined in their regulations. Greater difficulties may occur only in the capital (Vilnius) where there are many schools and many school librarians. Pedagogic Proficiency Raising Centre (PPRC) organizes qualification improvement seminars for school librarians, and they have already prepared an elementary librarianship teaching program which will be used for teaching school librarians (not specialists). It will start this year. In the nearest future the LNL is going to prepare a publication about the elements of library science. Sometimes librarians conferences are organized in the country, where the most important questions are discussed, guests are invited, librarians share their work experiences.

In some towns more active and experienced librarians organize methodical groups (MG), and give seminars for those who are less experienced. It is done without any salary though school librarians are among those who are the least paid.

For example, the MG in Kaunas (the second largest city in Lithuania) be presented with its activity organization principles, directions, structure, connections etc. Such MG is

independent, so they work only in some towns and regions. MG usually elects their leading body from several members – Methodic Board.

**Methodic Board's (MB) main activities:**

- MB prepares an activity program for a year;
- MB holds meetings once every two months;
- MB organizes methodic activities of Kaunas school librarians
- MB spreads the experience of the creative school librarians, regulates the preparation of programs for developing students information skills, and initiates the publishing of information issues;
- MB initiates programs for improving librarians' qualifications.
- MB helps the Department of Education (by Municipality) organize contests, exhibitions, festival and conferences.
- MB initiates stimulation of the librarians for their active methodic work
- MB presents their activity account at the librarians' general meeting every year
- MB meetings and recommendations are registered in the Office of the Department of Education by Municipality.

**Organization of activities in a methodic group (MG):**

- The activity is coordinated by the organizing specialist of the Department of Education.
- The methodologist of the Teachers Qualification Centre organizes the activity in the spheres of qualification improvement and experience spread.
- MG is supervised by the chairman who gives an account for the activities of the methodic group at the librarians' general meeting once a year.
- The activity program and the account are prepared for one school year.
- Members meet together once in three months.
- Decision are made and accepted by the majority of votes in open voting. If the number of votes for and against is the same, the chairman makes the final decision.
- Sittings are recorded, protocols are kept for 5 years and documents are kept by the secretary.

**The aim and the objectives of the Methodic Group:**

- The aim is to seek the growth of the librarians' professional competence and efficiency assurance in educational process.
- Objective:
- To encourage librarians' cooperation.
- To spread methodic innovations among librarians and share good experiences.
- To analyze positive changes in librarians' activities.
- To evaluate, review and probate librarians' methodic works, coordinate their spread.
- To send information to the teachers' qualification centre in Kaunas, the data base of methodic works.
- To initiate new programs for the improvement of the librarians' qualification.

- Make suggestions for librarians, methodic groups, non-governmental organizations, educational institutions about the improvements of librarians' activities.
- To help organize town events, contests, exhibitions.
- To cooperate with the methodic groups of other subjects and the school methodic board.
- Make suggestions for the librarians' encouragement, stimulation.

**Methodic group members have the following rights and duties:**

- **The right** to make suggestions for the correction of methodic, organizational or professional activities.
- Choose activity ways and forms.
- Stop their activity without giving reasons in written form.
- **Duties:** They must participate in the MG activities, organize librarians' methodic activities in town and solve the activity problems of the group.
- Analyze the results and changes of librarians' activities.
- Encourage methodic professional cooperation between librarians and teachers.
- Spread pedagogical and methodic innovations, share good experiences of librarians' activities.
- Participate in the activities of the librarians' methodic group.
- Follow the rules of the librarians' methodic group.

**Structure of methodic group**

- Methodic group consists of 11 numbers.
- Every librarian having higher education can become a member.
- The MG is elected and approved for three years (not longer).
- The members are elected at the general meeting of librarians.
- Candidates can be offered by school headmaster, teachers, specialists of Educational Department and by the methodologists of the Teachers' qualification centre.
- The chairman (chairwoman), the assistant and the secretary are elected by the members of MG using secret voting. The membership has to be supported by 2/3 of the members of MG.

**Methodic group communicates with:**

- The Teachers' qualification centre;
- The School methodic board.;
- The groups of others subjects and education spheres.
- Associations, societies, funds, publishing houses, libraries, pedagogical-psychological service.

The Methodic Group of Kaunas School Librarians (MGKSL) is especially active in developing student's information skills. As the development of information skills is not included into the curricula (either as a compulsory or optional subject), MGKSL prepared "The program for developing information skills in 1-4 and 5-12 forms". The Program was probated by the City

Schools' methodic group and the specialists of the Municipality Educational Department, primary school teachers and librarians of universities. Using these programs school librarians' conduct lessons on information skills. It has become a tradition to hold information literacy contests in our schools and city. The contests are organized by the Department of education. They form a working group consisting of the school librarians from secondary schools, gymnasiums, universities and teachers of the native language and information technology teachers. This working group prepares integrated theoretical and practical tasks for the contest. The theoretical part of tasks includes:

- Librarian knowledge;
- Surfing the Internet;
- The principles of applying information.

Practical tasks are done on the computer (by the students):

- Search for some information on the Internet;
- Edit the material with the text editions;
- Send documents by e-mail.

Such tasks give knowledge and experience, develop information culture, and stimulate creativity and independence. Sample tasks are customized for Lithuanian schools, so there is no value in demonstrating them to the international society.

During the contests students compete both individually and in teams. While working they discuss things cooperate and achieve better results. This contest method was chosen due to the fact that team work is becoming of great importance in consequence of rapid development of information and computer technologies and the increasing amount of information. Such contests are organized in two stages: first at school in April and further in the library of Kaunas Technology University (KTU) in October.

The students – winners of school contests come to the University contest. It usually takes place in KTU library where future students get familiar with the environment, funds, catalogues and service available in the library. The librarians let them use computers, reading room, funds and provide with qualified help organizing the contest. The winners of the contests are awarded prizes. Last year Methodic Group of Kaunas School Librarians (MGKSL) held a scientific-practical conference entitled "The School Library and the Society of Knowledge" for all librarians of the country. They prepared and distributed the material of the conference report. MGKSL has issued many methodic publications for school librarians.

## 5. Reading promotion in Lithuanian and school libraries' participation in it.

In 2005 in Lithuania we carried out a sociological survey, "Reading scale, trend and needs," which indicated that reading had become less popular among different age groups of people. 1/5 of the citizens do not read any newspapers or magazines at all. 2008 is scheduled to be a Year of Reading in Lithuania. The Year of Reading is one stage of the Reading Promotion Program (further RPP or Program) confirmed by the Government. This Program started in 2006 and it will be realized till 2011. The initiation of this program was caused by the fact that 34 % of adults do not consider themselves to be active readers and they do not like reading at all

(according to a November 2007 survey). So, reading promotion is really important in our modern society as reading is gradually being overshadowed by other means of getting information. Other leisure activities are becoming more and more popular among adults as well as children. Children spend more and more time watching television or playing computer games. Reading for them is a less attractive activity which requires certain skills. There is no system for the assessment of students reading skills, which could reveal the reasons of the lack of these skills.

Implementation of RPP will help to stimulate activity, encouraging people of different ages and social groups to read more, improving reading skills and raising reading prestige in the Lithuanian society. The aim of the Program is to increase the number of people reading constantly or frequently, in this way to train a creative, intellectual, critically thinking, public-spirited and responsible personality.

The main reading promotion objects of the Program and the methods to achieve them are as follows:

1. It is important to create financial conditions to realize the reading stimulation projects. It was necessary to prepare legal and funding regulations, rules of contests and other necessary acts. They were prepared and confirmed. The Program stimulates projects that popularize books, reading practice and emphasize the importance of books and reading for the knowledge of culture, personality development and self education.

2. The second important objective of the Program is to improve the skills of the people, working in sphere of culture and education to promote reading. For that purpose instructions and training are organized for people working in reading promotion projects, they are provided with good practical examples. Publishing houses, authors, educational and cultural institutions will be encouraged to prepare informative and methodic material on reading promotion for parents, teachers' and students. Moreover, reading promotion should be included into the qualification improvement programs for kindergarten teachers, social teachers and librarians.

3. The third objective is to strengthen communication and cooperation between institutions in the sphere of reading promotion, using RPP as the connection between institutions and disciplines will be strengthened, making the partnership of different sectors more active.

4. The fourth objective is a planned system for analyzing reading skills, directions and needs. Assessment tests for children's reading skills will be prepared and they will help reveal the reasons of the skills shortage and to strategies for eliminating them.

5. The fifth objective is as we have already mentioned: to propagate reading and to raise its prestige in the society. In order to fulfill that, different means will be used. One of them is the Internet website where reading promotion initiatives and projects are introduced. The website has special pages for children and the youth, where the information about books and reading is provided in an attractive way, young people are invited to discuss.

Similar reading promotion programs were carried out in different Western countries, especially in Scandinavia. Successful examples are provided by our neighboring countries, Poland and Latvia. Realizing Reading Promotion Program in Lithuania has been based on the experience of these other countries as well.

The organizers of this Program are the Ministry of Culture and the Ministry of Education. The coordinator of the program realization this year is Lithuanian National Library's Children's Literature Centre and its director Aldona Augustaitienė.

School librarians willingly take part in different state actions. Different reading projects, contests, questioning competitions, selecting of the most popular book among children and adults this year, conferences are offered. This year the state financing is given to such

projects as "Rainstorm of reviews "and "Public reading in non-traditional spaces". Our school joined this project as well: 50 senior class students with their teachers visited the Scientists' Palace established in the ensemble of old architecture outside the city. We participated in the musical-poetic composition "Man's mystery play". The event was held to honor the 150 th anniversary of Vincas Kudirka, a famous Lithuanian poet and the author of Lithuanian National Anthem. Actresses read extracts from the poet's letters and works, played his works for the piano, and the students heard new facts of his biography. I am sure that friendship with a book, which starts at school, causes in a personality further positive attitude to reading.

For that reason the efforts of school librarian's encouraging young people to read more are very important. Personality of the librarian, his erudition, ability to communicate with young people and help to choose the best books are also very important. Many people prefer authority of a person to the effect of some impersonal event.

The Internet website, created for the Year of Reading, contains information about Reader's contest, the winners of which are promised prizes for erudition, original presentation of the books, interesting ideas how to stimulate these who do not read, for argumentative opinions about some writers and their books, for book choosing criteria. Students (younger and senior) willing to participate in this contest, have to fill in a form online and sent it to the organizers of the contest. School librarians play the role of mediator: they additionally announce this contest in schools, invite the readers of the library to participate, explain criteria of the assessment. If necessary, they explain where and how to fill in a form. School librarians also encourage students to participate in the election of the most popular books for teenagers, children and adults in the election of the Book of the Year. Also they encourage students to visit the website of the Reading year and discuss about the books, express their opinion.

Three probations abroad are financed in connection with the announced Year of Reading. I am one of those who won the contest for getting a probation grant, and for this reason I am here at this conference. I am obliged to gain Reading Promotion experience from other countries and share it with the librarians in Lithuania. Lithuanian school librarians almost have no opportunity for improvement of their qualification abroad to get experience of other countries, because of the financial problems and the problem of lack of knowledge in foreign languages.

## 6. Lithuanian school libraries' perspectives and aspirations.

School Improvement Program Plus ("SIP+") was confirmed by the Ministry of Education and Science of Lithuania in 2007-12-03. The mission of this program is to plan and help assimilate the structural funds of the European Union, the funds of projects and use them for General education in Lithuania. The Program SIP+ (further Program) will start at the end of the 2008 and last till the end of 2013.

The competence improvement of school librarians using modern equipment is a part of the SIP+. Analysis of the current situation shows that there are some advantages and disadvantages in the of our school libraries. The advantages are:

➢ The School Libraries' Information System (SLIS) is being spread. Since 2005 year 485 school librarians were instructed how to use and spread this System.
➢ Lithuanian school libraries are provided with quite a lot of computer techniques. According to the account "Benchmarking Access and Use of ICT in European Schools 2006", prepared by European Council in 2006 61.7% of Lithuanian schools used

computers for education in school libraries, whereas the average of use in the European Union is only 33.4%.

The disadvantages of school libraries are:

➢ The number of trained school librarians is not sufficient.
➢ The spread of SLIS is too slow. More consultations are needed for those who beginning to work with the library automation program.
➢ Bigger part of the programming and technical equipment in Lithuania is out of date.
➢ There is no system of school librarians' qualification improvement and assessment.
➢ The motivation of school is insufficient.

The aims and objects of the Program part "The improvement of school librarians' competence, using modern technologies".

The aims are to improve the service quality and efficiency in school libraries and to raise the competence of school librarians. In order to achieve these aims it is necessary:

➢ To investigate and prepare the need and competence analysis.
➢ To prepare school librarians' training programs.
➢ To prepare technological computer literacy program.
➢ The program should be prepared using School Librarians' Digital Literacy Standards (SLDLS).
➢ To prepare methodic materials for working with SLIS.
➢ To prepare school librarians-supervisors.
➢ To instruct school librarians on technical literacy.
➢ To train librarians in digital literacy using SLDLS.
➢ To instruct school librarians and train them to work with SLIS.

This state project "The improvement of school librarians' competence, using modern technologies" was prepared by PPRC (Pedagogic Proficiency Raising Centre) with its partner ITC (Information Technologies Centre). After having carried out the project it is expected that all school librarians will have equal possibilities to participate in educational activities, to improve their skills, to gain new skills and to get direct indirect help to become or to remain active participants of economic and social life.

During the project it is planed to use the experience of foreign countries and to stimulate cooperation of educational institutions in seeking optimal use of all the resources. The improvement of school librarians' competence will also help the spread of the intellectual potential of the society seeking to make knowledge and science the most important factors which would ensure well-being of the people.

The process of the project and the achieved results will be publicized to the people and organizations interested in it. They will get information about the support, about the improved accessibility to educational services and their quality. The information will be offered in:

➢ Mass media – information reports to news agencies and mass media;
➢ Electronic space – information reports on the websites of Ministry of Education, PPRC and ITC.

➢ Information publications;
➢ During the conferences.

   The good experience will be spread through educational institutions, educational service users and self – government institutions organizing educational activities in the region.

   Having finished SIP+ by 2015 about 240 school libraries should be modernized. The aim of the project on modernization of libraries is to provide school libraries with necessary technical and program equipment and furniture. That would be to improve the quality of library services and to ensure better conditions both for teaching and learning.

   These were the perspectives according to the carrying out of the SIP+ .Finally, this paper will present school librarians' long-lasting wishes and some hopes which could be fulfilled with the help of state institutions and good will.

2. Compensation studies program will be created and approved, according to which any school librarian will be able to gain psychological – pedagogic knowledge necessary for a teacher. Teachers working as school librarians will be able to attend the compulsory librarianship primary course. Then every school librarian could feel self-confident at work and would be at the maximum useful for the school community.

3. The school librarian's duty is considered to be pedagogic, as they work directly with students.

4. Teaching program 80 – hours is being planned and realized in School Librarians Digital literacy Standard (SLDLS). School librarians having mastered this program would have the necessary qualification and gain competence.

5. Information skill development is included into the compulsory educational programs.

6. Municipality public libraries, according to Lithuanian Libraries Law, provide systematic methodic help and professional innovations to school librarians.

7. Having completed Reading Promotion program (after 2011) school librarians will be managed and serviced by the staff aware of different ways how to promote reading. Also a lot more students and teachers will come to the libraries and read.

8. By the end of the year 2008 the law on the payment for the office workers of budgetary institutions (including schools) will have been enacted which will give more freedom for employer. As a result, headmasters of big schools will be able to establish additional staff in the libraries for introducing library automation system, creating an electronic catalogue, consulting students and parents on the choice of profession and employment questions. They will also be organizing reading promotion events, carrying out various surveys, analyzing them and giving lessons on information skills development

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*Biographical Notes* I have worked at school library for 24 years. I am a teacher of Mathematics. I have been a leader of School department in Lithuania Librarian's Association for 6 years. I maintain school website and present professional development workshops and conference sessions in Lithuania elsewhere.

## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# School Libraries as Foundation for World Class Learning:
# Experiences of an Indian Librarian

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## Abstract

*The combination of study of Information and knowledge leading to wisdom; intellectual expression and scholarly appreciation leading to culture is the very process of learning. When this study is considered of high standard throughout the world, it becomes World Class Learning. Schools are the educational institutions wherein children are guided and trained to be disciplined and enlightened individuals. This responsibility is the onus of educators and greatly influenced by the facilities provided at school. The role of educators is highly regarded and recognized but equally important is the impact of the facilities provided in the schools. The most distinct facility is the library or the resource centre. We as information professionals agree that "Libraries Change Lives" which is a universal truth, for the kind of reference resources and the scholarly works they contain. What is the outcome if the resources are highly valued, are in great condition, well organized, etc. but there are no takers for these resources or the users lack the skills to use the resources? Some of the reasons for this short coming may be due to the absence of proper initiatives, promotion of resources and the services by the librarians. This paper attempts at combining the librarianship skills and literacy skills, resulting in the emergence of practical techniques and to how to apply this knowledge for promotion of the resources available and the services offered. Some tried and tested successful strategies namely Structured Library Periods (SLP), Adopt a Book Project (ABP), Five Best Friends in the Library (D.E.A.T.Y.), Focus Group Discussions (FGD), Application of Multiple Intelligence (MI) Theory for the effective use of library resources by K-2 Students, Use of Open Access(OA) Resources in ZSE RC experimented at the author's school are presented. These practices are simple, innovative and create a positive impact on the student. They also increase the library's contribution in achieving the school mission and very easily adaptable by the school libraries or librarians of the developing countries. But there is always scope for refining and improving the strategies tried and tested, in the course of time to suite the ever changing landscape of information and technology and more importantly, to satisfy the ever demanding user and his needs.*

*Program Administration, Multiple Literacies*

## Introduction

The combination of study of Information and knowledge leading to wisdom; intellectual expression and scholarly appreciation leading to culture is the very process of learning. When this study is considered of high standard throughout the world, it becomes World Class Learning. Today, 'Important goals of global education are to develop student's sense of place in the world and ideas of the roles and responsibilities of world citizenship'[1]. Schools are the educational institutions wherein children are guided and trained to be disciplined and enlightened individuals. This responsibility is the

onus of educators and greatly influenced by the facilities provided at school. The role of educators is highly regarded and recognized but equally important is the impact of the facilities provided in the schools. The most distinct facility is the library or the resource centre. We as information professionals agree that "Libraries Change Lives" which is a universal truth, for the kind of reference resources and the scholarly works they contain, apart from the services they offer. What is the outcome if the resources are highly valued, are in great condition, well organized, etc. but there are no takers for these resources or the users lack the skills to use the resources? Some of the reasons for this short coming may be due to the absence of proper initiatives, promotion of resources and the services by the librarians.

## Role of School Libraries

According to Dr. Kathleen D Smith, "School library media centers in the 21st century can, and should be, hub for increased student achievement and positive focused school reform". Further she said "One of the most effective and efficient ways to increase student achievement and love of learning is to leverage the power that library media centers can have in this process."[2]

In light of the above opinion a few important roles [3] of the school library can be

- Reading being considered as a virtue rather than a habit, begins and develops at the school library & this virtue helps every student to become a responsible human being
- Support and add on to the teaching process as required by the curriculum, as schools today rely on the resources in their libraries to develop creativity and reasoning skills in young students
- Install in students the advantages of self learning and sustain it lifelong and hence school library is considered as the stepping stones to intellectual and academic career of the students
- Introduce Information Literacy and related activities for better usage of the resources
- Act as a gateway to scholarly information and thereby help them create new knowledge

The National Knowledge Commission (NKC) was constituted in 2005 as a high-level advisory body to the Prime Minister of India, with a mandate to guide policy and generate reforms. It has drawn The Library Charter which is common for all types of libraries in India [4]. It recognizes the Library's objectives as

- To disseminate knowledge as widely as possible;
- To serve as a major vehicle to facilitate creation of new knowledge;
- To facilitate optimal use of knowledge by all sectors, such as government, industry, rural sector and civil society;
- To ensure that people from all sectors and all parts of the country have easy access to knowledge relevant to their needs, in their own language.

## School Libraries as Foundation for World Class Learning

School libraries work on some basic principles which have to be reaffirmed in order to consider school libraries as foundation for world class learning. Some of them are

- The mission should be committed to Life Long Learning and helping students develop essential library and information skills. It should align with the school's mission and play a pivotal role in the realization of its goals and aim.
- Collaboration is the key component of a successful library program. So the library staff and the teachers should join their hands to bring the students and the resources together for excellent academic output.
- Library has to be proactive to the students and teachers information needs and deliver the best possible services to them.
- Developing efficient tools and techniques to help the teachers and students to recognize their information needs, locate, access, evaluate and use the resources to create new knowledge
- The management and the school administration should realize the need for training the library staff to adopt new technological developments and soft skills in order to deliver world class services to develop a world class learning community

For school libraries to become the foundation of world class learning, we need to meet world class standards for developing excellent resource collection, providing essential facilities and offering innovative services. This can be achieved by meeting national standards primarily and then aiming at international standards. This further calls for efforts to focus on continuous learning and sharing with fellow professionals. The realization of the challenges that the profession brings in and the best practices followed to overcome these challenges, and sharing of these best practices will take us a step closer to our mission of world class learning. With available opportunities, the author has tried some innovative practices which are described in this paper for discussion and value addition by colleagues around the world.

## Indian Scenario

India is witnessing a significant progress in the overall education system, which is a joint responsibility of the states and the centre. While access to schools and colleges remains a major issue in many rural areas, efforts are being made to combine creative aspects and personal development of students along with academics in urban schools.

According to the National Knowledge Commission of India's 2007 report "School education has to be a crucial area of focus if the foundation of a knowledge based society is to be built. The National Knowledge Commission has been examining issues relating to school education across the country, with the aim of framing a set of national level recommendations in this area"[5].

An overview of the education system is given below for general understanding.

*Indian Education System*

There are mainly four phases of school education namely Kindergarten, Primary, Secondary and High School. Kindergarten comprises of three years – nursery, Junior KG and Senior KG, Primary comprises of classes I to IV, Secondary school comprises of classes V to VIII and High School comprises of classes IX to XII. This division varies from state to state and according to different accreditation Boards but the basic schooling lasts for twelve years following the 10+2 pattern. All schools are affiliated to any one of the following boards:

- The State Government Boards
- The Central Board of Secondary Education (CBSE)
- The Council for Indian School Certificate Examination (CISCE)
- International School Boards (Ex. IB Programme)

Higher education involves graduation in the fields of Arts & Humanities, Commerce, Pure sciences and Applied Sciences. Professional courses like engineering takes four years to complete while medical course takes five years and graduation in arts and commerce takes three years to complete. This is further followed by Master's Degree and Doctoral studies in the respective subjects from the Universities. Some of the country's institutes like IITs (Indian Institute of Technology), IIMs (Indian Institute of Management), IISC. (Indian Institute of Science), AIIMS (All India Institute of Medical Sciences) and ISB (Indian School of Business) are world class institutions with world class learning facilities and services. The Ministry of Human Resource Development made of Department of Higher Education and Department of School Education and Literacy are responsible for all levels of education in India.

The major challenges for the government are providing compulsory primary education to all and maintaining quality of education, besides striving to reach 100% literacy in all states of India. Currently the literacy level is around 65%. Though it is low compared to many developed countries, Indian academic system is much organized and of high quality compared to many developing countries. The whole process of academics involves lot of learning, researching or literature search which brings in the libraries or information centers into focus.

*School Libraries in India*

Libraries of CBSE schools, ICSE schools and some state board schools are doing well while many government run schools do not have libraries and if they have one, they do not have access to the books. Dr. S R Ranganathan, the Father of Library Science in India had said in the context of modern education and role of library as "The Library is the heart of the school, from which every activity in the school radiates and by which in all gets irradiated. The library should literally and figuratively be the hub of every

educational institution and the librarian should be a guide, philosopher and friend of all its inhabitants" [6].

According to the NKC "The role of libraries in providing widespread and inclusive access to knowledge is widely acknowledged. In today's context, libraries have to play two distinct roles - to serve as a local centre of information and knowledge, and be a local gateway to national and global knowledge. In order to achieve this goal, existing libraries must modernize their collection, services and facilities, become more pro-active and collaborate with other institutions, agencies and NGOs in order to develop a community-based information system" [7].

Some of the issues under consideration of National Knowledge Commission are:

- institutional framework of libraries;
- networking;
- education, training and research;
- modernization and computerization of libraries;
- maintenance of private and personal collections and
- staff requirements to meet changing needs

According to Dr. S R Ranganathan, the primary objective of school library "is to act as a lever by the aid of which, one of the primary functions of the school is discharged. All the class room work should have a slant towards students work in the library and the class room work and school library work influence each other reciprocally"[8].

*Challenges*

Just as school libraries all over the world face challenges, Indian school libraries too face hurdles in achieving their mission. Some of them are mentioned below.

- Budget allocated to the library is inadequate
- Non availability of space and furniture in many government school libraries
- Most of the school libraries are managed by a single professional while some may even lack a qualified librarian
- Role of library and librarian in increasing student achievement is neglected
- Lack of provision for application of technology for library operations
- Failure in motivating teachers and parents to participate actively in library activities

In order to overcome some of these challenges there is an urgent need for introducing innovative methods in various areas of the profession. Very few schools have stood up to the challenges and the librarians are trying hard to make the best use of the opportunities that come to them. Zydus School for Excellence is one such school which has given the liberty to try something new to cross the hurdles and reach out to the students. The next section gives an overview of the school and the library.

**Zydus School for Excellence: an overview**

Zydus School for Excellence has been set up under the aegis of Ramanbhai foundation and is supported by one of India's leading healthcare groups, Zydus Cadila. Zydus School for Excellence is a comprehensive school that aims to provide each student, regardless of ability, with the opportunity to develop his or her full potential. It seeks to create an environment for teaching and learning in which each person is esteemed as a unique individual and to build a community within which each is free to grow in relationship to others. The curriculum provides all students with a series of educational experiences that will form the basis for further development. The aim is to provide a supportive learning environment, which values the uniqueness of each student's experiences and abilities.

*Resource Centre (Library)*

The library is commonly called as the Resource Centre and it is regarded as the heart of Zydus School of Excellence. Its **role** is to support and promote educational goals as outlined in the school's mission and curriculum and the **Mission** is to enable students and teachers to effectively use information and facilitate them to become life long learners. It is the commitment of the management, teachers and the librarian, to make the Resource Centre as a role model for other schools in the city and all over India. In every respect, it should emerge as the best example in shaping a child's overall personality.

The Resource Centre is housed in two different wings – one meant for the students/teachers of junior classes is located near the Pre-Primary section and the other meant for the senior classes is located in the main building. The Resource Centre houses around twelve thousand books, and around seven hundred CD-ROMs. It is open from 7.30 a.m. in the morning to 3.00 p.m. in the afternoon. Books/Magazines/CD-ROMs are issued for students of classes VIII - X and only books and magazines for students of classes Jr. KG to class VII for a duration of one week. There is the option of renewing the resources for the duration of one more week. Since the library is open for access for parent members also, a lot of interaction takes place and guidance is given to the parents as to how to use the resources for maximum benefit. Taking regular feed back from the parents and teachers on the child's performance in academics, as well as conducting in the society, helps in promoting the usage of the resources and build a strong collection. It is noticed that a successful partnership has been established between the Library staff, parents and children to encourage reading, books and making use of this to perform well in their academics.

**Best Practices**

Steven Bell wrote "Observing the best practices of libraries that are creating passionate users who return again and again may help. It must begin by taking the slower, more thoughtful path of studying the work practices of users and understanding a great library user experience from their perspective" [9]. A Best Practice according to the author in the context of the school library can be "a unique, innovative strategy or a tip; a planned, detailed process or a project that helps to promote library collection, services or create a positive impact on the students' personality and increase the library's contribution to the achievement of the mission of the school" [10]. As library professionals, we are all aware how new and interesting ideas/services can motivate a sea change in usage of the resources and attitudes of the users.

This paper attempts at combining the librarianship skills and literacy skills, resulting in the emergence of practical techniques and to how to apply this knowledge for promotion of the resources available and the services offered. Some tried and tested successful strategies at the author's school are

- Structured Library Periods (SLP)
- Adopt a Book Project (ABP)
- Five Best Friends in the Library (D.E.A.T.Y.)
- Focus Group Discussions (FGD)
- Application of Multiple Intelligence (MI) Theory for the effective use of library resources by K-2 Students
- Use of Open Access(OA) Resources in ZSE RC

They have been presented individually below with reference to, the context of the practice, the objectives of the practice, the practice itself, the evidence of success and the resources required to carry out the practice.

*Structured Library Periods (SLP)*

Zydus School for Excellence has an excellent print collection of 12,000 books including reference, fiction and non fiction. Except for reference all other books (Age appropriate) are free for issuing. Children are usually conditioned in the Indian context to read story books or novels or magazines for pleasure or entertainment and the concept of reading non fiction like biographies, know-how books, hobbies, sports, etc. is not in vogue. To make best use of the library periods for all classes (twice a week), this concept was started so that the children know that apart from reading story books and novels there is much more to read, understand and use it for their academic purpose.

This practice was introduced with the following objectives. Namely,

- Creating awareness among students about different types of resources available in the Resource Centre.
- Providing compulsory access to these resources in planned and phase wise manner.

- Helping students to make use of these resources for fulfilling their research requirement for projects and assignments.

Consistent and constant efforts are made by the librarian to structure each library period and method of conducting library periods. Classes IX & X have one library period while classes' I-VIII get two library periods in a week. So one period is reserved for issue/return of books and the second period is utilized for free browsing, completion of library assignments, doing their academic literature search etc. The librarian identifies different genre of books like fantasies, folktales, science fiction, historical fiction, biographies, mythology, general knowledge books etc. at the start of the academic year. Then systematically each genre of books is allocated for a week's duration, keeping in mind the age of the children, the font size of the words, the physical condition of the books, etc. 5-10 books more than the actual number of children are kept aside to aide in selection of the book by the children. A brief introduction is given about the books that are going to be issued that particular week and why they have been chosen. Then an assignment or report is planned on that particular collection, usually any one particular genre of book is chosen as the assignment topic.

This practice is being experimented since the last five years and some success parameters that have been observed are as mentioned below

- Students learn to use all types of resources at an early age.
- Academic performance of students increases due to their ability to research the lessons and gather information from various sources in the library for projects, assignments, etc.
- General awareness and performance in many non-academic activities (Quiz, debates, elocution, posture presentation, etc) increases as ideas are gathered from various resources available in the library.
- Children have been found to enjoy the process of discovering the knowledge contained in various types of resources on their own.

A basic requirement to implement this practice is a patient, enthusiastic, well read librarian! Also there should be a neat balance between fiction and non fiction books in the collection so that the goal behind the circulation in this pattern will be achieved. Books should be age appropriate and the font size of the words should be right for that particular age group children. Adequate copies of the books or number of titles of the same genre books should be ready for issuing before the start of the week.

*Adopt a Book Project (ABP):*

Zydus School for Excellence Resource Centre has around 2500 subject reference books exclusively for teaching. Since ICSE (Indian Certificate of Secondary Education) board recommends lots of project and activity oriented teaching, teachers can make best use of the subject reference resources for their teaching and planning assignments and projects without wasting much time.

The following objectives were in mind when this practice was introduced. Namely,

- To make optimum use of teacher resources available in the collection.
- To implement the concept of teacher helping teacher to use the resources for better understanding and teaching of the subject.
- To develop presentation skills among teachers and in the process develop new teaching aids.
- Regular evaluation of these resources and their up gradation

The relevant subject reference books for different subjects are identified at the start of the academic year as well as every month and put on display. When the teachers come to the library; they are encouraged to pick the book of their choice from the display. Then the book is issued to the teacher and after a month of reading and preparing, that teacher has to give a presentation as to know how the book was useful for the purpose of teaching, how the same book can be made use of for a level higher or a level lower and how strongly it is recommended to other teachers teaching the same subject.

Some interesting observations were made when this practice was implemented like

- When a co-teacher recommends a particular book, the other teachers are keen to read it than a librarian recommending a book. Chances of the book being used were higher.
- When issued under a special category and a presentation is expected, teachers genuinely read and prepare. It encourages professional reading.
- New techniques/ methods/ ideas emerged from the presentations as other teachers keep adding value during the process.
- Each teacher saves a lot of time and energy to locate the relevant resource, read and make use of it.

For carrying out this practice no additional resources were needed. Whatever resources are available at the RC are utilized for the project. But teachers and librarians have to work in coordination to bring out the best results. Multimedia facility is needed to carry on the presentations for better impact.

*Five Best Friends in the Library (D.E.A.T.Y.):*

Reference sources form a core of every library collection and usually costlier also. At Zydus School for Excellence Resource Centre, we have many different kinds of dictionaries, multi volume encyclopedias, atlases, yearbooks, almanacs, thesauruses, etc. In order to make best use of these resources which cannot be issued out, the concept of "Five Best Friends in the Library", namely Dictionary, Encyclopedia, Atlas, Thesaurus, Yearbook was developed. They have been referred as best friends because they are always available in the library when one wants them and are the basic reference sources which are reliable and accurate, and most consulted when one wants to write a report or an assignment.

The main objectives of introducing this practice were

- Making students aware of the reference section and reference sources in the library.
- Teaching them to choose the appropriate and relevant sources to refer to complete their assignments and projects.
- Helping them with the process of research.
- Teaching them the basic writing skills to write reports and assignments

Each class gets two library periods in a week in our school. The first period of the week is usually utilized for issue-return of books. The second period is used for teaching library/information skills to the students and giving them an assignment based on it. Every month one particular reference source is introduced and explained as to how to use it and then a simple assignment based on it is given to check whether the students have learnt to use the resource and capable of using it for their academic purpose After the end of the second term of the academics, a small project is given on chosen topics to the students, which they have to do in the library itself using these resources. Here the library science skills can be used and the students can be taught as to how to identify the key word in a topic, find the meaning and related terms from the dictionary, and then refer the different kinds of encyclopedias to do the literature search. Then they can consult an atlas and a year book to spice up their writing with maps, facts, figures, etc. and then use a thesaurus to write the assignment in their own words. Note taking skills, basic writing skills and editing skills are explained along with teaching them as to how to prepare a bibliography and how to list references, so that the students learn fair use of information and give credit where it is due.

Some success factors observed after introducing this practice were

- Students find it interesting to refer to these resources more often as they believe that they are their friends to help with their academics.
- They learn to understand the process of research in a simple, systematic manner.
- Once they learn to search and refer for smaller topics in the library, without being graded, they gain confidence to take up projects and assignments concerning their academics as they now know the basic search skills.
- Students learn the report/assignment writing skills efficiently after this exercise.

They only resource requirement needed would be workbooks which help in framing assignments based on these reference sources. Also multiple copies of these resources will keep the students focussed and interested while completing their projects.

*Focus Group Discussions (FGD):*

According to Brey-Casians, El Paso Public Library Director, "The most important characteristic of the library of the future is its role as place – a destination for many who seeks a social environment in which to learn and grow" [11]. Considering school library as a foundation for world class learning, it is essential that the library should be the place to attempt to involve students by engaging them in meaningful activities which will successfully end up in collecting their thoughts and feelings regarding the collection, facilities and services, apart from those of the school. Since various events like International Children's Book Day, World Book Day, International School Library Day, etc. are celebrated in the library involving students at all levels, they prove to be wonderful opportunities to promote the library's collection and services to them.

The following objectives were to be fulfilled while framing this practice. Namely,

- To understand students expectations from the library and its activities
- To collect students opinions on certain issues concerning the collection, services, facilities of the library
- To improve existing facilities and services of the library and design new services for the students
- To develop techniques and strategies for reaching out to various groups of students through our services

As Focus Group Discussions occur in three phases namely Conceptualization phase, Interview phase and Analysis – Reporting phase, a little preparation is necessary to plan the sequence of things in phase wise manner, with certain modifications since the participants involved here are the students and the library is an intangible service. The conceptualization phase includes determining the purpose like what will be the topic of discussion, how will it benefit the library and its services, determining the specific group of students who will participate and who will be the moderator and facilitator, and developing a plan to carry out the discussion. In the interview phase, questions are developed in a logical sequence but space is provided for unanticipated questions too. Instead of going for a single moderator, a moderator team is usually constituted. The main moderator is either the administrator or a teacher and the facilitator is the librarian who takes notes, handles organizing aspects, preparing the report, etc. Usually the library is the venue for the discussion and the regular library period of the particular student group is utilized for the discussion. The seating arrangement is done in such a way that those students who are not participating can still access the resources and carry on with their reading while their peers are participating in the discussion. Students do volunteer in alerting the participating students about the discussion and handle minor interruptions while the librarian is engaged in the discussion. In the analysis phase, the moderator and the librarian sit together compare their notes, observations, etc and summarize the discussion. Then a detail report is prepared on this basis and put up to the principal and management for discussion and for taking decisions.

This practice has some genuine success factors which are listed below.

- Students take this opportunity to interact openly with the librarian and put forth their opinions and expectations without hesitation.
- This practice has become a reliable technique to gather data from students regarding various issues concerning collection, facilities and services provided by the library.
- This practice doesn't require elaborate preparation and is much easier to carry out, even it can be used with varied topics and varied student groups.
- Since the librarian is interacting directly with the students, information can also be collected from their body language, gestures, tones, etc. along with their verbal answers
- Since Focus Group Discussions are conducted on the eve of major events, active enthusiastic involvement of the students is noticed.
- Also since the Focus Group Discussions are carried out with the partnership of the school administration, many of the students' suggestions are considered and carried out.
- Most of the discussions end up with the students and library embarking on small projects carried out in the library using the library resources for the benefit of other students, teachers and parents.
- The students come well prepared having read the relevant resources and express their opinions in their own words, which speaks a lot about their confidence and the management is considerate of their opinions and suggestions

Since this practice is carried out in the library, no extra resources are needed except for the librarian's insistence to use the library resources to get information. This practice is an effective value addition to their education process.

*Application of Multiple Intelligence Theory for the effective use of library resources by K-2 Students [12]*

Dr. Howard Gardner a professor of education and coordinator of project Zero at Harvard University, challenged the traditional notion that intelligence is a single capacity possessed by every individual to a greater or lesser extent. Armed with research evidence, Dr. Gardner presents the idea of existence of a number of intelligences that result in a unique cognitive profile for each individual.
According to this theory human cognitive competence is better described in terms of a set of abilities, talents or mental skills called intelligences. All normal individuals possess each of these skills to some extent; individuals differ in the degree of skill and in the nature of their combination. Dr Gardner is of the view that such a theory has important educational implications including ones for curriculum development. Gardner and his team opine that their leads will have to be revised repeatedly in light of actual classroom experience. Yet they believe there are positive reasons for considering the theory of MI and its implications for education. To start with it is clear that many talents if not intelligences are neglected these days, secondly individuals of such talents are victims of single minded or single focused approach to the mind. Recognizing the plurality of intelligences and the manifold ways in which human individual may exhibit them is an important step.

This opinion of the theory prompted me to take up this concept and apply it to the evaluation of resources at the primary level. Since school library plays a crucial role in a child's reading development, the librarian becomes the promoter who guides the children and the parents and collaborates with the teachers to take up various activities contained in each and every resource by stimulating these intelligences.

The objectives of this practice are

- To stimulate various faculties of the brain/intelligences using books as the aid.
- To boost the child's confidence level by letting him/her evaluate a book
- To increase student achievement level due to knowledge gain and application, by applying the Multiple Intelligence Theory for evaluating a resource.
- To build a successful partnership between the Library staff, parents and children to encourage reading, books and making use of this to perform well in their academics.

The resources issued are a combination of fiction and nonfiction and most of the books issued are such that they stimulate the seven intelligences in one way or the other. Whatever may be the set of resources that is being issued, the children are taught how to identify and evaluate it for optimum use using multiple intelligence characteristics. Since the library is open for access for parent members also, a lot of interaction takes place and guidance is given to the parents as to how to use the resources for maximum benefit. Taking regular feed back from the parents and teachers on the child's performance in academics as well as conducting in the society helps us in promoting the usage of the resources and build a strong collection. So coming to the sequential flow of the whole exercise, as the academic year begins the first 3-4 library periods are utilized in making the children familiar with the concept of books, library & reading. Once the children get the hang of it, the issuing process begins. Since the library periods are structured, before the start of each library period, the resources that are going to be issued are introduced to the students. Total freedom is given to choose a book of their choice from the set that has been laid out for issuing. Opinion as to how they liked or why they disliked a certain series or book is carefully taken into consideration. The evaluation begins with the librarian getting involved and chooses one resource from the pile that has been kept ready for issuing. The pre-chosen book is displayed and a series of questions which satisfy various multiple intelligences are asked. The children are then encouraged to use the same method to chose a book which stimulates the various intelligences to take home.

The results of this practice are mentioned below

- Students showed increased interest in coming to the library and were excited about issuing books to take home and go through various books.
- Interestingly both fiction and non-fiction are sought after and therefore are used to the optimum level.

- Since parents are also encouraged to take membership of the library, most member parents are highly motivated in taking interest in their children's reading habits and are excited with this logical method of evaluating a resource.
- The positive feedback from the faculty regarding involvement in curriculum related research activities gives an idea about the factors as to which resources help or hinder academic development.
- This is one form of Information Literacy practiced at the very grass root level and is cost effective as an attempt is made to promote all the resources that are bought are also made use of.

Resource requirement to implement this practice would be Dr. Howard Gardner's works namely Multiple Intelligences: the theory in practice, Frames of Mind: the theory of Multiple Intelligences, etc need to be in the collection. Picture books, books with larger print are a must for Junior Resource Centre. A prior training or hands-on is imparted to library staff and parents. Consistent and repeated efforts on the part of the librarian to help children evaluate the books are essential and at least more than half of the children should be engaged in the process and tested for success.

*Use of Open Access Resources in ZSE RC [13]*

In developing countries getting an access to quality resources on the web is a major issue. But, if we get an access to quality resources, and that too free, the over all education scenario will get a face lift. Since teachers and librarians are the main providers of information resources, they can help the students to increase their achievement level. Open Access resources,

- help in making teaching, learning and research easier,
- help in developing a curriculum that will prepare students for the future,
- give the students more information to add on to the curriculum,
- help in identifying required & quality information without wasting much    time,
- help in achieving any librarian's universal mission of providing right information to the right person at the right time, in the right format, all this absolutely free, and
- help in identifying the relevant policies and practices of library professionals in the developed countries at the school level

To drive home these points, an attempt was made to create awareness among teachers about the freely available quality educational resources available on web and the benefits that they can gain by using them.
The objectives of implementing this practice were

- To make an effort to locate, identify, evaluate, organize and provide access to useful, reliable and quality websites for benefits of teachers and students
- Creating awareness among the teachers about the availability of free, quality, educational, electronic resources for teaching and learning.

- To identify, understand and implement means & ways to provide access to these free resources and encourage their usage.
- To explore the need for creating a portal of the selected quality, educational electronic resources to supplement the print collection.

An indicative list of forty five free quality educational electronic resources representing almost every discipline covered in the school curriculum with annotation was compiled specially and given to all teachers. A separate presentation was made to create awareness about web based resources/open access resources and accessibility and usefulness of the same. Some of the resources were covered as a part of the presentation, just to demonstrate the fact that how useful is the information covered in these sites and how well these sites are organized. Teachers were requested to visit each and every site (from the list given) in their subject area and were requested to find out the usefulness of the same for teaching purpose.

The success indicators of this practice were

- The accessibility to these free resources has bought in a global perspective to the concept of teaching and learning in school education, as the teachers, students and librarians have access to research work of the experts/professionals in their field of interest from the developed world.
- Teachers showed keen interest in understanding technology and also realized that using Internet/WWW is easier as well as beneficial.
- Due to the awareness about the free quality electronic resources, there is an increased demand from the teachers to assist them in identifying many more quality web resources in their respective teaching fields.
- A need for creating a portal listing all major resources has been clearly expressed by teachers.
- Teachers are now willing to look beyond textbooks or prescribed books and reference books for add on value to their teaching.
- They have become more vocal in their demand for Internet connectivity in the Resource Centre on more systems.
- Teachers visit the Resource Centre more often now to access many of the listed electronic resources.

Access to the Internet at the RC is a prerequisite. List of Open Access Resources relevant to the school environment compiled and updated regularly is an essential requirement. Necessary hardware/software installed at the user terminals is equally important. Dedicated teachers and well informed and genuinely interested management is a bonus to the success of this service.

Most of the above mentioned practices are experimented in a single library. If they have to gain credibility, they have to be tried in many other schools with some addition or improvement or local variation and then success rate can be measured.

**Future Plans**

Zydus School for Excellence Resource Centre aims at being a role model for school library as foundation for world class learning. In order to fulfill its aim, some plans for the future are mentioned as below

- To create a Learning Resource Centre, wherein major electronic resources will be added to the existing print resources to facilitate students' learning and teachers' teaching process
- To create a portal to serve as an Information Gateway wherein students can access the resources from home to do their assignments, projects, etc.
- The Resource Centre will be the place wherein the students' achievement will be in focus by providing facilities and services to enable learning, discussions and reflections
- The Resource Centre will be the hub for the school's, teachers' and students' scholarly work in the form of Institution Repository.
- The Resource Centre will create space for an Incubation Centre for nurturing students' ideas, dreams and goals, providing them guidance, facilities and resources

**Conclusion**

The effort to compile such innovative practices was altogether a great learning experience which leads to some suggestions listed below.

- The annual conferences conducted by IFLA, IASL, ALA, SLA, etc. can take up the task of undertaking further research on best practices in school libraries for world class learning.
- Working groups can also be formed to prepare strategies for evaluating and implementing such best practices.
- Links can be created between libraries who have implemented the best practices with the libraries that have the potential to implement.
- Also opportunities can be provided for training programmes and workshops during the period of the conferences.

These practices discussed in this paper are simple, innovative and create a positive impact on the student. They also increase the library's contribution in achieving the school mission as well as aim at becoming the foundation for world class learning. There is always scope for refining and improving the strategies tried and tested, in the course of time to suite the ever changing landscape of information and technology and more importantly, to satisfy the ever demanding user and his needs. What one needs is deep commitment to the idea of developing new understanding, in depth knowledge and wisdom about learning in the world. The bottom line is to develop a driving passion for highest possible standards of learning.

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## Author Profile

Ms. Rashmi Kumbar holds Masters Degree in Library and Information Science (with Gold Medal) and Masters Degree in Arts, from Gujarat University and Karnatak University respectively. She has also done her Post Graduate Diploma in Library Automation and Networking from University of Hyderabad.  She is currently working for Zydus School for Excellence as the Librarian and is with the school for the last six years. She is passionate about school libraries and its role in developing over all personality of students and has won 'Lead Learner Award 2004' in her school for her contributions to the school. Her paper titled 'Application of Howard Gardner's Multiple Intelligence Theory for the Effective Use of Library Resources by K-2 Students: An Experimented Model' was presented at the 72nd IFLA General Conference and Council in the School Libraries and Resource Centers section in Seoul in August 2006.  Another paper titled "Effective Use of Open Access Resources in a School Library: A Case Study of Zydus School for Excellence Resource Centre" was presented at the 36th Annual IASL Conference in Taipei in July 2007.

## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author alone and has not been published elsewhere. All information and ideas from others is referenced.

# Building Knowing Readers:
# Unlocking Pleasure

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*There is clear evidence of a relationship between pleasure reading and literacy development. Further analysis stresses the centrality of engagement to pleasure. In exploring these relationships the importance of choice, talk, and variety will be discussed. The role the teacher-librarian plays in facilitating interactions with text that promote pleasure and the importance of relationships, knowledge and collection building will be addressed with reference to research and practice. This paper builds on earlier presentations on this and related topics.*

*Reading, Pleasure, Engagement*

## Introduction

The creation of a reading culture is important to many school communities and, in particular, to many teacher-librarians. Those who see value in the experience of reading see the creation of this culture, the creation of a community that reads for pleasure, as an integral part of any school's endeavours. In addition to the personal satisfaction obtained from reading, Saxby reminds us that reading has a cultural function claiming; 'we humans live by our own stories, but the stories we hear and read, especially in childhood, help shape our lives and outlook. They provide us with much of our culture' (Saxby, 1997, p. vii). As well as recognising the benefits to literacy development, teachers and teacher-librarians who take pleasure in reading themselves also recognise the role reading can play in students' everyday lives. Reading is both an important skill that enables us to function effectively in society and an experience that increases our understanding of the world around us. Reading can open windows for us into other experiences both real and imagined.

At times, though, the educational sphere becomes fixated with reading as a skill. The idea that reading has intrinsic benefits that, though difficult to assess or determine, cannot be discounted, is a view that does not always hold sway in the realm of educational debate. The pleasures that reading brings and the understandings it can conjure are often not noted. Certainly, in Australia, in today's educational debate, 'scores on the board' often rule decision-making. It is those activities that have a measurable impact on student achievement that garner more funding, more staff and more administrative support. If as educators, both in the library and the classroom, we are going to argue the relevance of free voluntary reading, or pleasure reading as an activity to be encouraged and supported, one thing we can do is look to and use effectively the research evidence which supports our, often, heart-felt belief that reading for pleasure matters.

## The relationship between pleasure reading and student achievement

In making a case for the existence of a strong relationship between pleasure reading and student achievement we need look no further than a number of important, recent research studies from different areas of the world. This research evidence is powerful and compelling, I have explored its relevance in the past (La Marca, 2004), but it is worth revisiting.

The relevant research studies include the Australian School Library Association's (ASLA, 2003) report *Impact of School Libraries on Student Achievement: a Review of the Research, as well as t*wo American reports - The American National Assessment of Education Progress report titled *Trends in Academic Progress: Three Decades of Student Performance* (Campbell, Hombo & Mazzeo, 2000), which investigated the relationship between free voluntary reading and text scores in reading, and the report *Independent Reading and School Achievement* (Cullinan, 2000), which found strong links between positive attitudes towards reading and the amount of free voluntary reading that students undertake (Cullinan, 2000, p. 1). Cullinan also referred to a number of other research reports that found similar correlations, further strengthening her argument.

These research findings are replicated in the work of other commentators, most notably Krashen (2004). In reviewing a body of research he was able to claim that how much children read is related to how well they read (p. 4), and also Haycock, who, in a study of Canadian libraries noted that research supporting this relationship has been available for more than fifty years. Haycock claims that the relationship between achievement and voluntary reading crosses all the usual barriers to educational equity such as socio-economic background (Haycock, 2003, p. 17 & 26).

Complementary findings appear in research undertaken across countries and cultures. For instance, Machet, describing the South African experience, found 'that a free voluntary reading program can improve children's grammar, reading and comprehension more than time spent on conventional language lessons' (Machet, 2000, p. 1). Perhaps the most comprehensive evidence comes from the OECD Program for International Student Assessment (PISA) study, reported in *The Reading for Change* document (2000), which investigated the reading habits of 260,000 fifteen-year-olds across thirty-two countries. The *Executive Summary* reported that: 'Students who read well tend to be active readers. They gain in terms of both motivation and experience from reading regularly outside the context of school work' (OECD, 2000, p. 12).

As teacher-librarians we must embrace research findings such as these and use them as support evidence when we plan programs, create policy documents that explain the relevance of our services and programs and when we assist in the development of curriculum planning, production and implementation.

Despite all the valuable and useful evidence that allows us to make a case by playing the bean counter's game, perhaps it is the factors that began this discussion that are ultimately most important though, unfortunately, perhaps the most difficult to assess. Saxby (1997) reminded us of the important links between reading and culture and Jennings recognises that it is pleasure that is at the centre of the reading experience. Jennings says: '..a problem with attainment testing is the narrow view as to what are the essential elements when a child learns to read. The most important things in life cannot be easily quantified. Love, courage, honesty, enjoyment and attitude are not easily measured by tests….A child's attitude to reading and the degree to which they love books are the most reliable indicators of their future progress, but these are not measured. The pressure that is placed on children to perform well on national benchmarks can destroy the very element which will lead to success – pleasure in the task' (Jennings in La Marca & Macintyre, 2006, p. 12).

## The centrality of engagement to pleasure

Pleasure reading, then, has value for a variety of reasons. Whether we encourage reading for pleasure for reasons of enjoyment and personal growth or in an attempt to lift achievement scores how we increase levels of pleasure reading remains a challenge.

In attempting to describe the nature of the pleasure that we feel when we read we must acknowledge the reader's need to be engaged in the process of reading. This engagement goes hand in hand with pleasure. One description of the reading transaction is Csikszentmihalyi's idea of 'flow', that is, concentration and deep engagement – what he calls 'a deep sense of enjoyment' (1992, p. 4). His description of 'flow' evokes the reading experience that we want for young people. It includes the following:

- The mental manipulation of concepts

- The positioning of thinking as pleasurable

- The identification of the importance of patterns, likenesses, connectedness

- The facilitation of concentration and involvement

- The pursuit of an activity so pleasurable that it is undertaken for its own sake

(Csikszentmihalyi, 1992, p.126)

In line with these views Au found that 'engagement is at the very heart of what it means to be a reader' (in Guthrie & Alvermann, 1999, p. xi), and Guthrie found that engaged reading is 'a merger of motivation and thoughtfulness'(Guthrie, 2000). Engaged readers explore what they read in an attempt to learn about themselves and the world around them. They are motivated to learn, to discover and understand their motivation is intrinsic. Guthrie (2000) describes a student-centred learning process, one that is built upon a critical interaction with a text. This interaction relies on engaging students with books that *they* want to read, and positioning reading as an experience that they will choose to continue in their own time and into their adult lives. Creating an environment, a culture, which fosters this, is a crucial school practice. Such practices manifest themselves as curriculum, classroom and library reading experiences that are designed to encourage students' enjoyment of, and pleasure in, reading in the belief that pleasure underpins engaged reading. Good teachers and teacher-librarians are an important component in creating these contexts for engagement.

This approach necessitates that teachers and teacher-librarians work in partnership to position reading across the school as an inherently pleasurable activity, one that is linked strongly to academic success not through tests and assessment but by providing an environment that encourages a culture of thoughtful and analytical reading fostering the enjoyment and challenge which rich texts offer. From their first days at school it is important that students are not just taught to decode symbols but are engaged in reading as a meaningful part of their lives.

The OECD report 'Reading for Change' (2000) found that 'The results show unequivocally, that improvement in reading literacy performance relies not just on improving student cognitive skills but also on increasing their engagement in reading' (OECD, 2000, p. 22). The establishment and improvement of engagement, the report goes on to argue, 'cannot be seen as an add-on to curriculum reforms, but must be seen as central' (OECD, 2000, p. 22). Contingent on this is 'access to interesting and meaningful reading materials' (OECD, 2002, p. 121). Guthrie and Alvermann explore at length what we need to do to create engaged readers. They have said 'creating classroom communities, providing challenging tasks, and allowing students to make choices characterise effective practices that connect to students' interests and motivations. Connecting to students' interests and values ultimately can produce motivated, engaged readers'(Guthrie & Alvermann,1999, p. 23).

To enable readers to become engaged in their reading schools need to begin by recognising and valuing the out-of-school reading that students do and building on (though not appropriating) those reading skills and preferences. In a community of readers the

interests and views of all readers are valued even if the preferences of some may not be mainstream or literary in an academic sense. This goes hand in hand with the importance of providing access to a range of diverse texts that students want to read, texts that challenge them and also texts that make them feel comfortable and part of a community of readers. As Chambers says 'People do not become committed readers on a diet of prescribed texts only, however well chosen they might be…We cheerfully become willing readers when following our own instincts and tastes' (1991, p.4). These instincts and tastes may be far ranging and experimental in type and form of text but they must all be rich and engaging. Margaret Meek reminds us, 'makes skilful, powerful readers who come to understand not only the meaning but also the force of texts' (Meek, 1989, p. 40).

A 1999 study into the reading habits of young people in Britain showed that 'Children are reading more books now than their parents did in the seventies' (Hall & Coles, 1999). This study compared the habits of 8000 young people with a similar, well-known study by Whitehead, undertaken in 1971. Coles and Hall found that the generation they studied was reading more, though not from the 'classics' but from newspapers and modern popular fiction, a constantly changing, varied diet of material. The work of Krashen (2004) and others supports this view that young people continue to find pleasure in reading as an activity.

Recent reports have suggested that students are not reading, particularly literary texts as often as they once did. Reports such as the National Endowment for the Arts *Reading at Risk* research said: 'The trends among younger adults warrant special concern, suggesting that - unless some effective solution is found - literary culture and literacy in general, will continue to worsen. Indeed, at the current rate of loss, literary reading as a leisure activity will virtually disappear in half a century' (2004, p. xiii).

In response, commentators such as Krashen have taken a slightly different approach, celebrating the positive and offering simple, sensible solutions to these gloom and doom prophecies. In doing so, Krashen again champions the importance of access, choice and variety. He said, '…we have to get the good news out: Self-selected voluntary reading is beneficial and pleasant, and is highly effective. Also, it is not difficult to get children involved in reading. For a fraction of what we are investing in testing, and in programs that clearly do not work, we could easily ensure that all children have access to quality reading. When this happens, literacy crises, real or imaginary, will be a thing of the past' (Krashen, 2008, p. 21).

Krashen sees access, choice and variety as central components for supporting and building young readers. Instrumental in this process is the teacher-librarian or the classroom teacher, what Chambers calls the enabling adult (Chambers, 1991).

## The teacher librarian as an enabling adult

As interested professionals, we all work hard at bringing students and books together. This is what Chambers (1991, 1993) saw as the work of the enabling adult – finding the right book for the child in line with their interests and needs, talking to them about their reading and enabling them to begin this cycle again. This cycle of selecting, reading, interacting and selecting again is what Chambers termed the 'reading circle' (Chambers, 1991). The role of the enabling adult is to foster pleasure and engagement in this process. Baker, Dreher and Guthrie (2000) said that 'What is clear from the research on teacher effectiveness is that educators passion for the subject matter is contagious …In effect, teaches should share their love of reading by demonstrating its importance and beauty to children on a daily basis' (p. 304).

A recent British report by the National Literacy Trust - *Reading for pleasure: A research overview* (Clark, C. & Rumbold, K., 2006) stressed the importance of intrinsic

motivation to the levels of engagement and therefore levels of pleasure our students found in the reading experience. This research overview quoted a number of commentators in the field. In particular they noted Wigifield and Guthrie's 1997 report which found that there were several factors that related to intrinsic motivation that predict reading breadth and comprehension. These were: 'importance, curiosity, involvement and challenge' (Clark & Rumbold, 2006, p. 19). That is the 'importance', or relevance of the text to their lives, a factor which supports the efforts of teacher-librarians to create collections that offer a breadth and depth of reading options. 'Curiosity' the need to find, and supply, reading experiences that will interest and tantalise, our students. Clark and Rumbold's other two factors - 'Involvement' and 'challenge' - also support the need for a comprehensive library collection. This terminology suggests a student- centred approach where interests and needs are meet by the reading experience. Thomson says: (we need) 'to be able to help individuals find books that are likely to be most meaningful to them…whatever their reading experience' (Thomson, 1997, p. 33).

These views support the wide ranging importance many commentators (Krashen, 2003; Bunbury, 1995; Strickland, Ganske and Monroe, 2002; La Marca & Macintyre, 2006) place on the need to provide choice, access and variety. To facilitate this teachers and teacher-librarians need to have a variety of texts to draw on, close knowledge of the individual student's abilities and tastes, and strategies that support students as they become independent in selecting for themselves.

To work with young people as enabling adults we need a variety of skills. Nodelman & Reimer said 'Since a main pleasure of literature – and a main way of learning more about how to enjoy it – is the dialogues it engenders, good teachers will want to encourage dialogue, both among children and between children and themselves'(2003, p. 46). They suggest that one of the most important skills that we must learn how to do well is the sharing of pleasure in reading based around the most basic of human interactions – talk. The role of literature has always been to provoke and invite questions not to provide answers and one of the most important roles for the teacher-librarian is not to tell the students how to respond to or interpret what they read but to help them articulate their own responses. This supportive interaction helps build a sense of community; it helps to establish relationships around shared reading experiences and ultimately leads to pleasure in reading.

A rich and diverse library collection, a welcoming library environment and a sense of a community of readers are structures that support choice and talk. Without them, the possibility of choice is jeopardised particularly for those students who have little external access to reading materials. As a collection builder, a provider of equitable access and a knowledgeable, accessible mediator the teacher-librarian has a powerful role to play in facilitating choice and offering variety. Haycock (2003) has found that 'teacher-librarians typically place the right book in the right hands at the right time and encourage a lifelong love of reading (Barlup, 1991). The role of the teacher-librarian in connecting young people with books that interest them, has been underestimated' (p. 27).

## In practice

### Photo Story

Nodelman (1996) stresses the importance of sharing with students what experienced readers do when they explore and respond to a text. The importance of talk in this process has already been highlighted. A number of commentators have created ways of assisting students

to explore the way texts work through talk. One of the most useful is Chambers's 'three sharings' (1993). In this model he encourages readers to share their enthusiasms – what did you like/dislike?, their puzzles – what did it mean when…? Did you understand when...?, and patterns or connections – world-to-text, text-to-text, self-to-text.(Chambers,1993).

Recently I worked with a group of students who had read a range of excellent Australian teenage fiction that had been shortlisted for one of our national awards. We had the luxury of time to talk and analyse what we had read, discussing our likes and dislikes, our puzzles and connections. The exercise attempted to replicate the judging process that is carried out by adults, but in this case, the students were the 'judges'. They responded with wonderful discussion about the merits and strengths of the various texts, using Chambers's three sharings approach facilitated discussion technique.

As a culmination to this wonderful talk students were invited to create a response to one of the texts utilising the Microsoft program Photo Story. Photo Story is freeware and allows the user to collect together, sequentially, a series of images, incorporate audio, and insert captions. The students were asked to encapsulate the book in images and music. They were to represent how they saw the book and what it meant to them. The results were extraordinary and led to more talk and discussion as students viewed each others short photo and audio montages. They further developed their understanding by talking through the various images and interpretations.

This exercise was engaging and stimulating. It offered choice, variety and talk in a user-friendly form of response that was open to interpretation and manipulation. It created, for a short time a community of readers that found pleasure in not only reading but also in responding to text.

## Text centred thematic unit

Chambers's 'three sharings' approach encourages students to see patterns and connections – world-to-text; text-to-text; self-to-text (Chambers, 1993). It can be used with one text or with many. Units can be created that link a number of different text types under a common theme. Students can then, with the assistance of some leading questions, be encouraged to make connections and see patterns between and beyond the texts to their own world and the wider world. Whilst these theme-based studies are common in the primary or elementary area they are not so readily attempted in the senior or secondary years of schooling in Australia. The strength of this approach lies in the scope it offers for embracing a variety of text types. The following texts might be grouped together for a unit entitled 'In a modern world' which could be underpinned by a series of questions based around the notion of how we live our lives and interact with each other.

## In a modern world

Possible texts:

- Frankfurt, H. G. (2005) *On bullshit*, Princeton University Press.
- Dimmeys and David Jones Advertising catalogues.
- Hamilton, C. & Denniss, R. (2005) *Affluenza: When too much is never enough,* Allen & Unwin.

- Hopper, E. *Nighthawks* (artwork)
- Hyland, M. J. (2004) *How the light gets in*, Penguin. (novel)
- Munch, E. *The scream* (art work)
- Riddle, T. (2000) *The singing hat*, Penguin.(picture book)
- *Simpsons* (television series)
- Spurlock, M. (2005) *Don't eat this book*, Penguin.
- *Super size me* (2004) Directed by Morgan Spurlock (documentary film)
- Tan, S. (2000) *The lost thing*, Lothian. (picture book)
- Tashian, J. (2004) *The Gospel According to Larry*, Puffin. (novel)
- Thompson, C. & Lissiat, A. (2005) *The short and incredibly happy life of Riley,* Lothian.(picture book)
- Warhol, A. *Campbell's soup can* (artwork)
- Westerfeld, S. (2005) *So yesterday*, Penguin (novel)
- *Who weekly* (magazine)
- Youth Society pages from *The age* (major daily newspaper)

Whilst students explore connections and puzzles through interaction and talk based on rich texts that offer variety and depth, they are encouraged to think and question.

## Conclusion

Our libraries are vibrant, interesting places that offer a wealth of opportunity to our students. The task of assisting students to become engaged readers who find pleasure in reading as an activity is not a chore but a gift. It allows us to explore, with them, the rich and thoughtful offerings, the variety of mediums, views and approaches that make up our world. Being an enabling adult is both rewarding and meaningful and allows us to assist in creating the next generation of creative, thoughtful, analytical thinkers.

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*Biographical Notes*

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Susan has edited a number of texts in the field of teacher-librarianship including *Back to Books: Creating a Focus on Fiction* (1999), *Books up Front: Investing in the Value of Reading* (2001), *Effective Learning Spaces: Inspirational Library Design* (2003) and *Rethink!: Ideas for inspiring School Library Design* (2007). She is also the co-author with Dr Pam Macintyre of *Knowing Readers: Unlocking the Pleasures of Reading* (2006).

## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Reading Spaces

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*This paper will explore briefly what research tells us about library design and, more specifically, the design of reading spaces for the provision of pleasure reading in school libraries. Acoustics, lighting and temperature levels, amongst other factors, all have an impact upon the learning experience that takes place in any school space. How we approach the creation of library reading spaces will be discussed with a particular focus on student views and opinions. Furniture, layout, colour, display and ambience will all be considered in light of how they affect comfort and learning opportunities. A number of illustrative examples of school library reading spaces and the views of students will be shared with the audience during the formal presentation.*

*Reading Spaces, Design, Reading*

## The Place of Reading Spaces

There has been a great deal of discussion surrounding the development of school library learning environments. Much of the recent literature and the research results indicate the need for more open flexible learning spaces, which can respond to the needs of the individual learner, and the links between well designed spaces and student achievement (Hill, 2002; Harbutt, 2006;Lackney, 2003; Nair & Fielding, 2005). Shibsted sees the school library's role in this century as 'a place for collaboration, performance, creativity, interactivity and exploration' (2005, p. 26). The impact of Information Communication Technologies (ICT), changing workplaces, the recognition of different learning styles and greater autonomy in learning have all influenced current thinking about education and have been taken up by those rewriting curriculum documentation to reflect current needs. How have reading spaces been positioned in this time of change?

Initially, when various technologies were moved into school libraries, some institutions reduced the size of their pleasure reading spaces (La Marca, 2003). As time has gone on and ICT have been better understood and better utilised throughout the whole school environment, the nature of reading spaces has been rethought. There are clear links between learning and student achievement and pleasure reading (La Marca, 2004). This and the enjoyment students find in reading for pleasure are important reasons to spend time and effort on creating an effective reading space in a school library. This paper aims to identify the factors that impact upon the planning and creation of a school library reading space.

# Library Policy

Like the school mission or vision statement, school library documentation must reflect the principles that underpin the operation of the particular school. This means that the library mission statement, all policy documents, all submissions and any future design or refurbishment project briefs must be based upon the school's structure and guiding principles. This may include education authority directives, blueprints and priorities, the school's vision statements and relevant current research documents. All of this information must be reflected in the documentation that supports the library's operation and all future planning. Once written, these statements or policies must also be widely distributed and ratified by the school's administrative structure. Such articulation ensures a basis for sound decision making and clear library goals and objectives during any design consultation process or even a small redecoration.

## Planning Informed by Policy

Davidson said 'physical space reflects educational philosophy. Educators who reorient physical space to support essential learning agree: set clear pedagogical and social goals before you organise space' (2001, p.1). Having a mission statement in place, a statement owned by the library staff and the school community that clearly states the aims and objectives of the school library, is a powerful base for any future library development. When a change, no matter how small, is being considered for the library space or the use of the library space, the proposal should be evaluated against the policy and mission statements. Such informed policy planning avoids adhoc development of library spaces.

Recent research into the way we create reading environments supports this view. In discussing the provision of an area for pleasure reading one teacher-librarian said: 'We don't have that nice little lounge room bit – we can't put it in and the bit we have is disappearing as we put in more computers' (La Marca, 2003). Why? Further investigation found that the area had changed because they did not plan for it or have the research justification in place to back up its existence.

Aidan Chambers, in his book entitled *The Reading Environment,* highlighted the 'value' given to an activity by giving it a designated space (1991, p. 30). We should value what we see as our core roles and ensure that the library floor plan supports those core roles through proper documentation. This means that if we value reading as an activity to be fostered and promoted by the library and the wider school community, we must ensure that an appropriate space is part of the overall library plan.

## Elements of reading space design

There are a number of elements that should be taken into account when designing any part of the library and reading spaces are no exception. This discussion will consider the following factors:

- Ambience
  - Attitude
- Access and ownership

- Flexibility
- Individuality / Creativity

- Physical concerns
  - Furniture
  - Light
  - Colour
  - Acoustics
  - Temperature
  - Display

- The role of the student and the school community

## Ambience

Ambience is many things. Firstly, it is the 'feeling' created by the physical environment; the result of conscious thought being directed to how best to use the architecture, how to utilise furniture, lighting, colour, display materials, signage and various forms of decoration. (La Marca & Macintyre, 2006, p. 59)  The ambience that each teacher-librarian creates will be different, depending on each particular school, and the physical attributes of the library.

Haycock, in his overview of recent research, found that 'the physical ambience of the school library is a relevant factor in terms of the library program's overall impact on student achievement and literacy. In 'outstanding' schools, library facilities were consistently welcoming and included informal areas for free voluntary reading and browsing' (Haycock, 2003, p. 30). Doll (1992, p. 227) suggests that the correct ambience within a space contributes towards the students' sense of ownership of the space, an important factor in how welcome students feel and their sense of connection to the space.

Secondly, ambience refers to the feeling created by the personnel who work within the library environment and, in this particular case, those that work within the reading area or spaces within the library. Research has found that attitude, the way the teacher-librarian perceives the students and interacts with them, is one of the central factors in facilitating the creation of an effective reading environment – 'Positive teacher-librarians, who are interested in creating a welcoming reading environment within their libraries, display an appreciation of their students as reading individuals and an interest in sharing reading experiences with them' (La Marca, 2005)

## Access and Ownership

Elliott Burns (2003), in her article 'Space, place, design and the school library,' discusses how spaces are socially constructed.  Burns poses these questions: who designs spaces? And what or who informs the design? She sees connections between power structures and social structures and design. Boyce (2003) agrees, seeing any library space as the result of a 'personal agenda' (p. 23). This poses interesting questions in relation to access and equity which must be considered when entering the process of any design or layout changes. In relation to reading spaces we must consider whether how the space is situated, how it is

accessed from outside the library and from other areas, and how students feel about using the space affect the access that all students have to the space.

Lackney stated that 'structured reading areas have shown to significantly increase literature use by students' (2003, p. 12). Within any given space we must also consider how it is being used. How readers create a sense of ownership of their own space in a way that makes them feel welcome and comfortable. Research by Doll has found that 'there is some evidence to indicate that children also seek to define and defend a territory for themselves…Privacy can be provided by using carrels, bookcases, shelves, and portable panels as screening…60% of students interviewed (Ahrentsen et. Al.) said they preferred such space when they needed to concentrate' (Doll, 1992, p. 226). If we consider this an important aspect of library design, we need also consider the necessity of creating smaller spaces within larger areas, establishing welcoming and homelike elements that encourage the student to feel comfortable and valued.

Doll found that 'students appreciate a library media center where professionals and staff welcome them and allow them 'ownership' privileges' (Doll, 1992, p 227). There is evidence to suggest that if children feel comfortable in a familiar space, there are positive academic benefits, including an increased ability to concentrate on learning tasks. This must also correlate to the activity of reading for pleasure.

## Flexibility

Davidson said 'flexibility puts control in the hands of the educator' (2001, p. 3). There is truth in this statement. Ensuring that spaces are physically constructed in a way that enables the community to respond to change more easily is the cornerstone of flexibility. Freeman, in what he terms 'laboratories that learn', describes well-planned libraries as 'spaces easily reconfigured in response to new technologies and pedagogies' (Freeman, 2005, p. 2). As changes in educational philosophy and student needs become apparent, the physical space can be modified accordingly. In readings spaces this flexibility allows the area to change regularly to keep it constantly inviting and interesting.

Flexible spaces are everywhere in the literature on design. Hackett says 'A library needs architectural authority to sell the idea that learning is culture's hot zone. It has to offer retreats for solitary study and forums for active engagement' (Hackett, 2004, p. 1). How this relates to a library reading space is something that requires serious consideration. Some public libraries are looking towards the marketing strategies of large chain bookstores to understand how they can successfully convey their various messages. Perhaps school libraries need to consider similar ideas when constructing flexible responsive spaces to facilitate reading and other activities that take place within their walls.

## Individuality / Creativity

This paper must discuss the creation of reading space in generalities, as it is impossible to engage effectively with the wide variety of possibilities, questions and issues that any one group of teacher-librarians may have about how to create a relevant, functional space for their library. Within this discussion, though, we must not lose sight of the importance of creatively engaging with how to bring individuality to a particular space. This is particularly relevant when creating reading spaces and storytelling areas for the junior end

of schooling. Some teacher-librarians choose to work with a focus, idea or mascot that is close to the heart of their school, using characters, colors or themes that have a particular relevance to their local area.

To come up with inspiration you can survey your students for creative ideas. Perhaps you may choose to let the art department run wild, invite in local artists or release your own inner imagination. Any of these options, handled with care and a clear assessment of the needs and ideals, should result in a reading space that is responsive and inviting to the community it serves.

The factors being discussed in this paper - color, furniture, light, ambience etc - all play a part in the creation of a reading space but the creative element that we bring to the mix, sometimes with the help of others, is the icing on the cake.


## Physical concerns

### Furniture

Fielding found that 'a wonderful characteristic of learning is that we learn when we feel secure and cozy, and also when we feel challenged' (Fielding, 2006, p. 1). This is a factor that must be considered seriously when choosing furniture. Too often in the school environment we respond to financial or practical needs that ignore our very human need to feel 'cosy and secure'. Davidson agreed, stating that comfortable seating, quiet corners and private niches are necessary elements of any good design that supports learning (Davidson, 2001, p. 3).

The easiest non-structural change to alter the feel of any room is through the use of colour or furniture. Morgan suggests that 'the way in which furniture and joinery is positioned in a room is also a useful tool for creating ambience within the space. Placing furniture in an unordered or informal way helps to create a sense of welcome and creativity in group learning areas' (Morgan, 2007, p. 37).

Overwhelmingly, comfortable seats are the most mentioned furniture option in relation to creating a warm, welcoming library space. In 2003 research into creating positive reading environments, the student respondents' most requested addition to the library space to improve ambience and comfort was the inclusion of attractive, relaxed seating (La Marca, 2003). This finding is borne out in the recent book *The language of school design: Design patterns for 21st century schools* (2005), where Nair and Fielding claim 'on those rare occasions where students are given an opportunity to comment on the quality of their learning environment one answer always seems to make the cut – "give us more soft seating"' (p. 57).

In his list of *33 principles of educational design,* Lackney (2003) indicated a number of principles that correlate with the view that an effective school library space must respond to the need for flexibility to support learning. One of the most interesting being design principle seven which states 'consider home a template for school'(Lackney, 2003, p. 7). This principle is particularly important in relation to reading spaces since when we read, comfort is a key factor in how we respond to the activity. One student, when questioned in research on the reading environment about seating in the reading area said 'I think libraries should have armchairs because that's what they have at home' (La Marca, 2003, p. 143). With this

and Lackney's views in mind perhaps we should consider how and where we read in our homes and design library reading spaces accordingly?

The following list compiled by Manning and La Marca (2007) could be considered when making decisions about furniture choices:

- Consider first impressions/entrance ways
- Flexibility
- Shelves on wheels
- Wireless technology
- Allowances in shelving seating etc. for growth and change
- Technical considerations
- Cabling
- Colour
- How different elements will define the space
- Functionality
- Child size
- Comfort
- Aesthetically pleasing
- Appealing furniture creates enthusiasm
- Sturdiness
- Ergonomics
- When furnishing a particular area consider the whole

(Manning & La Marca, 2007, p. 16)!

And don't forget to be creative and whimsical at times that are appropriate. Imaginative approaches to problems are to be encouraged. A recent example of being a little whimsical or perhaps innovative and brave is the 'feet table' utilised at a Melbourne suburban secondary college. After having to constantly ask students to remove their feet from various objects when reading, the library staff decided to invite rather than discourage the process. They cut the legs shorter on a coffee table and renamed it the 'feet table'. Students are allowed to put their feet up and read and everyone is much happier. A creative, relaxed response to an issue that had been causing division – now the reading space is even more conducive to relaxed pleasurable reading!

*Light*

Design literature suggests that we should seriously consider the use of lighting as effectively as possible. Within the possibilities of task, ambient, decorative or access lighting, most commentators stress the importance of maximising task-orientated lighting and the use of natural light. Lackney's design principle 28 is 'maximise natural and full spectrum lighting' (2003, p. 20). This principle was reinforced by the research review undertaken by Kenn Fisher for the Commonwealth Department of Education, Training and Youth Affairs, in which he found that 'It is generally accepted that good lighting, both natural and artificial, can contribute to the aesthetic and psychological character of a learning space. Studies confirm that, for fifth and sixth grade students, appropriately designed and well-maintained lighting improves students' achievement scores' (Fisher, 2001, p. 3).

Considering a student-centred approach to learning and acknowledging the range of individual learning styles that we must engage with in the library environment, Randall Fielding suggests that 'we all learn differently and at different times. We need a variety of lighting levels and qualities and colours of light' (Fielding, 2006, p. 3). He also says that 'lighting should vary to reflect the character of each space.' (Fielding, 2006, p. 3) The fact is that within one library environment there are inevitably a number of different learning/activity areas that demand different and varied lighting levels. Active areas, quiet reading areas and work spaces all have different lighting needs. A reading space has particular needs in relation to light - students need subdued, calming lighting to reflect a quiet activity but they also require good quality spot lighting in specific areas, to provide good reading light. Balancing both of these needs is a challenge that takes considered thought, particularly when natural lighting, and the normal changes in its intensity across the day, is taken into account.

Fielding suggests we consider brighter illumination in the centre of a room where active work is taking place with softer lighting for a quiet reading room. Light, like furniture or colour, can be used effectively to denote activity, divide spaces and modify behaviour.

*Colour*

Colour is a very complex area. Engelbrecht (2003) noted its impact on mood, and physical reactions and recognised that age and life experiences play a part in how we interpret different colours. Myerberg critically said 'colour is not decoration; it is a teaching tool, an alphabet of light' (2002, p. 1). He is describing something elusive; perhaps he is arguing that colour can contribute to the teaching process by creating an ambience or atmosphere which is conducive to learning. Hennah (2007) said 'innovative use of colour can energise, soften, warm or enrich your library' (p. 62).

Commentators point towards the need for all educators, not just those in libraries, to be more adventurous and creative with colour. We definitely need to broaden the spectrum of the colours that we are prepared to consider using everything from what Hackett (2004, p. 1) calls the 'luscious and lulling baby blue' to the red and yellow of the famous commercial 'golden' arches. Fielding said 'All colours have a place for learners of all ages, when used thoughtfully. A good application depends on the cultural and climatic context, available resources and lighting'(Fielding, 2006, p. 5).

Fisher found that 'Although no quantitative measures have been identified in the published research, colour is believed to influence student attitudes, behaviours and learning, particularly student attention span and sense of time' (2001, p. 4).

A variety of services are available, both from commercial sources and on the internet, for example www.mycolor.com.au, which allow users to create a variety of paint schemes online. It is worth taking advantage of these opportunities and consulting experts as colour can be a powerful design element if wisely used.

Morgan (2007) found that 'colour trends come and go and trying to keep up with the latest vogue interiors can be an expensive exercise. Paint is relatively cheap and is easily changed to give a school library space a new feel or face lift without having to invest in costly new floor coverings, furniture and lighting' (p. 40). Relevant advice for anyone

revamping or redesigning a reading space as cheap and easy statements are often the most many can hope for. This aside, there is no doubt that colour can make a huge difference relatively easily to every aspect of a space.

## Acoustics

Fisher, in his work on design features and how they affect learning, noted the impact of acoustics on student behaviour and learning outcomes (Fisher, 2001, p. 4). Acoustics is often a neglected area, its importance not being realised until buildings are finished and it is often too late to redesign areas to improve the acoustics. Teacher-librarians must consider noise levels within a building, as well as the noise that leaks in from areas beyond when choosing where to situate a reading space. Calm and quiet are essential for relaxed reading and if noise can be minimised this is to everyone's advantage.

Even once a space is situated with no option for moving it changes can be made to minimise noise levels. Morgan reminds us that 'acoustic ceiling tiles, carpet, fabric wall covering and furnishings, and even shelving make a difference to the sound levels within a space' (Morgan, 2007, p. 38). Whether we have doors open or closed and he window covering we employ can also impact upon the way sound works in a space. They do this by absorbing sound within the space.

## Temperature

The Commonwealth report *Building better outcomes: The impact of school infrastructure on student outcomes and behaviour*, found that there is an 'overwhelming weight of evidence supporting a relationship between the thermal environment and academic achievement and student behaviour' (Fisher, 2001, p. 4). The report suggests that temperatures in excess of 25 degrees centigrade (approx 77 degrees Fahrenheit) have detrimental physiological effects which result in decreased mental efficiency, work outputs and performance. Findings such as this require us to look carefully at the temperatures we offer in the reading space. Though Fisher's findings focus on the detrimental effect of high temperatures, there is no doubt that very low temperatures can also cause difficulty – it is very hard to read comfortably in an area that is too cold. Find a pleasant median is essential if the community is to be encouraged to use the space enthusiastically all year round.

## Display

Anecdotal evidence and research both indicate strong benefits for displaying student work. It contributes positively to their sense of wellbeing and feeling of ownership and belonging. Chambers said displays 'deeply influence the mental set of people who see them' (1991, p. 23). He argues that good book stock (an important element not covered in this paper) plus good display, or the lack thereof, are an indicator of the value placed on reading and books (1991, p. 28). Research in this area (La Marca, 2003) found that students liked to see their own work displayed as they found it encouraging. There was also a suggestion that seeing their own work on display contributed towards their sense of ownership of the space. Morgan notes that 'constantly changing display walls created by students create a feeling of ownership and pride and encourage students to take part in creating their learning environment' (Morgan, 2007, p. 38).

Research (La Marca, 2003) also found that students wanted input into the types of general displays that decorated the reading area. Students commented on the gap between what well-meaning teacher-librarians thought would interest the students and what they would have chosen for themselves if offered the opportunity. The research respondents indicated that though teacher-librarians chose what they thought were teen friendly posters to decorate the walls in fact they were way off the mark. No doubt there are many other examples of well meaning choices that fail to invite the student body as expected. This reinforces the importance of seeking student opinion.

Hennah (2007) encourages us to consider how marketing gurus have constructed displays in shops that attract and engage customers. Various public libraries and designers have taken these views on board including the Princeton Public Library in New Jersey (USA) and the Opening the Book library design company in the UK, school libraries have been slower to follow. Hennah sees transference of the principles of retail design to how we use display in a library environment as user friendly and appealing. Outward facing display, quality materials, clean lines and planning are elements that Hennah suggests teacher-librarians must embrace.

## The role of the student and the school community

To contribute to the students' sense of ownership of any space within the library environment it would be wise to invite student involvement in any re-design or refurbishment. To encourage their support and involvement one could:

- Survey students about their needs
- Seek their input on colour and textures
- Observe student usage of spaces and regular movement patterns to inform change
- Create a sub-committee that includes students to inform the design process

It is important that we involve school communities in any design or redesign of library facilities to allow us to achieve outcomes that suit the clientele and to increase their sense of ownership of the results. This input, though, must be based on sound educational principles and research that has been established and ratified through the appropriate channels.

## Conclusion

Research of various kinds supports the need for teacher-librarians and school communities to plan carefully any change to a library's design in light of best possible practice. All learning environments should be based on sound pedagogical and social considerations. There are many sensible reasons for this view and it can be argued that school libraries, and all of their component parts, offer a value for money investment. Schibsted, in discussing the Robin Hood project to create new or updated school libraries in disadvantaged primary schools in New York, reported that 'by investing in only five percent of school's real estate (the library)(the project) has an impact on 100 percent of the students' (Schibsted,

2005, p. 26). If we want to have an impact on learning and take pleasure reading seriously, quality reading spaces that provide an environment conducive to the task are essential.

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## Biographical Notes

Dr Susan La Marca is a teacher-librarian at Ivanhoe Girls' Grammar School in Melbourne, Australia. She is also the editor of *Synergy*, the research journal of the School Library Association of Victoria and associate editor of the journal *Viewpoint: on books for young adults and she* works as a consultant in the areas of children's and young adult literature and libraries. Susan has edited a number of texts in the field of teacher-librarianship including *Back to Books: Creating a Focus on Fiction* (1999), *Books up Front: Investing in the Value of Reading* (2001), *Effective Learning Spaces: Inspirational Library Design* (2003) and *Rethink!: Ideas for Inspiring School Library Design* (2007). She is also the co-author with Dr Pam Macintyre of *Knowing Readers: Unlocking the Pleasures of Reading* (2006).

## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author alone and has not been published elsewhere. All information and ideas from others is referenced.

# Using website stickiness strategy to stick online readers：Web-based RPG Reading

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*In this study, we would like the readers to conduct online-reading using the method of role-playing. We chose the Journey to the West, one of China's four greatest classic literatures, as the material in this experiment. The readers will take on the role of the main hero of the book, Sun-wu-kong, while reading, experiencing, and exploring the story. We wish to discuss topics relevant to website stickiness and characteristics of online game and in turn to understand the acceptance of Web-based RPG Reading style.*


*Keywords: Online Reading, Online Role Play Game, Stickiness*

## Introduction

Up to July 2005, the growth of Internet users in Taiwan has reached to 14,660,000 people approximately, and over 2,700,000 people are online readers. It shows that the reading behavior in Taiwan had gradually shifted onto the Internet. People living within a digital era had formed a habit to read online (Chang, 2006). But Online Reading is no longer a linear activity, it's a sampling process, and could jump from one publication to another easily (Ojala, 2000).

To online gamers, online games are extremely attractive, and online gaming websites seem to be able keep gamers on their sites for long hours. As for online reading websites, they seem to be less attractive and less able to make users "stick" to them for long hours. Through theories related to intrinsic motivation for reading, website stickiness and

characteristics of online games, we attempt to determine the functions that an online reading website which has website stickiness should possess in the wish of finding the functions that would attract readers who would repeatedly access, or even stick to the reading website.

In this study, we wish to discuss topics relevant to reading motivation, website stickiness and characteristics of online games, and in turn to understand the acceptance of Web-based RPG Reading style. In other words, we will design the questionnaire to collect the opinions of the online readers to understand users' opinions and level of acceptance of Web-based RPG reading style.

## Relevant Theories

### *Theories on Reading*

Scholars such as Bond (1994) have defined reading as identifying written symbols which stimulate a reader to retrieve the previously learned meaning of the symbols. In other words, the acquisition of the meaning of written symbols must be achieved by a reader who recalls or manipulates the pre-existing concepts. Bond divides reading into two procedures: decoding and the acquisition of meaning. Alexander and Healthington (1988) believe reading is a meaningful process with the purpose of acquiring the meaning of a passage.

According to Sweet and Guthrie (1996), the extrinsic motivations for reading include conformity, identification, competition, and job avoidance, all of which are powerful attractors for children in the initial stage of learning as they provoke children's temporary attention and in-turn their effort. Despite its powerful attraction however, extrinsic motivation is not useful in terms of changing children's fundamental reading patterns since the activities provoked by the activities would disappear when extrinsic motivations or reinforcements disappear. Intrinsic motivation includes involvement, social interaction, challenge, and curiosity, and is a powerful and long-lasting support for reading activities. It helps individuals to maintain long-hours of reading, become good readers, and spontaneously develop or acquire more strategies that facilitate reading.

The questionnaire survey on reading motivations conducted by Wigfield and Guthrie (1997) shows that children's intrinsic motivation for reading is better at predicting the quantity and width of reading than extrinsic motivation does. In order to help students develop intrinsic motivations, the teacher must organize a set of teaching plans that combines reading, writing, science, and social studies and provide opportunities for children to independently define their interests, choose texts, and connect the concepts in different types of texts through self-guidance based on their involvement and curiosity (Sweet & Guthrie, 1996).

From the intrinsic motivation for reading that was proposed by Pintrich, we can understand that there are complicated reading motivations for each individual, and intrinsic motivations for reading are an important driving force for readers to be willing to engage in reading and be challenged by texts. Pintrich (1987) believe that a learner's learning process should include three intrinsic motivations: value, expectation, and affect. They are explained below: (1) Value: This refers to a learner's reason for engaging in a learning activity, the perceived importance, and values. This includes a student's goal orientation and work value.

(2) Expectation: This includes a learner's control belief, the belief that he/she can successfully complete a job, and self-efficacy. (3) Affect: This includes a learner's emotional reactions towards leaning and his/her self-evaluation through self-value or self-respect.

## *Theories on Flow*

In 1975, Csikszentmihalyi (1975) proposed the Flow Theory, which indicates that if a person engaging in an activity is fully concentrated, he/she will filter out other irrelevant perceptions and enter the "flow" status.

Based on the Flow Theory, Trevino and Webster (1992) believe the interaction between a user and CMC (Computer-mediated communication) is a form of game and exploration. The Flow Theory believes that the flow is a user's experience of being deeply involved in games and explorations and such a pleasant experience encourages the user to engage repeatedly.

When interpreting the interaction between a human and a computer with the Flow Theory and treating such interaction as a fun and explorative experience, Hoffman and Novak (1996) propose that the flow occurs in internet surfing when (1) the interaction with the computer is smooth; (2) the experience is intrinsically enjoyable; (3) the experience is accompanied with a loss of self-consciousness; and (4) the experience is self-reinforcing. In order to achieve the flow in an activity, the user must achieve a balance between the skills he/she possesses and the level of challenge the activity offers, and both of these two aspects must be at a certain level. It is also proposed that certain positive benefits are seen during the flow stage, including increased consumer learning, exploratory behaviors, and positive affect.

Webster (1993) proposes that the flow experience can be measured in four dimensions: (1) The user's perceived control with the computer; (2) the user's perceived level of concentration; (3) the level of arousal of the user's curiosity; (4) how interesting the user thinks the interaction is (Webster, Trevino and Ryan 1993).

In the study on users' acceptance of the internet, Moon and Kim (2001) combined perceived playfulness with the Flow Theory in order to extend the application of the Technology Acceptance Model. In the study on online gamers, Hsu and Lu (2003) also combined Technology Acceptance Model with the Flow Theory and social factors in order to analyze the reasons that draw gamers to online games.

## *Theories on Online Game and Stickiness*

Online games have certain characteristics that attract gamers to go online, access the games, and stick to the games (Chen, 2004). According to the literature discussion, we find that these characteristics include: (1) Role-playing: Gamers play their own roles and interact with other in all types of games, much like wearing masks online. (2) Virtual community: Communities exist in online games where human interactions are possible. (3) Tele-presence: Online games have the sense of "tele-presence," which includes personal-presence, social-presence, and environment-presence. (4) Real-time, multi-player interactions: Real-time, multi-player interactions facilitate exchanges among members of a virtual community and allow sufficient interactions.

The definition of Stickiness is the ability of websites to attract and retain customers (Zott et al. 2000). Reichheld and Schefter (2000) believed that web user's willingness to return is a strong indicator of website loyalty. According to literature discussion, we find that website stickiness is comprised of three main aspects (Lin, 2006), which are: (1) The user's positive attitude toward the website. (2) The user's high level of trust in the website. (3) The website's high-quality content.

## Web-based Online Reading

According to the related theories, we proposed a framework of Web-based Online Reading as follows.

| online game characteristics | Functions of Web-based RPG Reading | Description of Function | Function of Corresponding Web-based RPG Reading |
|---|---|---|---|
| Role Playing | ■ | The reader plays an important role and enters the world in the book. | Role-playing reading mechanism. |
| Virtual Community （book clubs） | ■ | Provides readers with a discussion community where each person's reading options can be viewed. | The readers who have read the same books are put in a virtual community. |
| Long-distance participation | □ | RPG Reading does not provide this function since most of the functions here are built for 3D gaming. | None. |
| Real-time multiplayer interaction | ■ | Provides a human-machine interaction mechanism. | Human-machine interaction mechanism. |

## Questionaries

In this study, we would like the readers to conduct online-reading using the method of role-playing. We chose the Journey to the West, one of China's four greatest classic literatures, as the material in this experiment. The readers will take on the role of the main hero of the book, Sun-wu-kong, while reading, experiencing, and exploring the story. Use a questionnaire to find out whether the reading style of google books (place scanned pages on the Internet for viewing) or Web-based RPG Reading is more attractive to readers.

Some Questions of this study was adopted Likert Scale method to design user questionnaires. Responses were measured with a five-point scale (1= Strongly Disagree, 2= Disagree, 3= Undecided, 4= Agree, and 5 = Strongly Agree). Thus a total numerical value can be calculated from all the responses. Higher item scores indicate greater Agree.

The user questionnaires and results are as follows.

| Question | Option | Results | % or Mean |
|---|---|---|---|
| 1.Do you enjoy playing online RPG games? | □Yes<br>□No | 58<br>13 | 82% |
| 2. How much time do you spend on online RPG games per week? | □Less than 1 hr.<br>□1～2 hr.<br>□2～5 hrs.<br>□5 hrs. or more. | 30<br>17<br>15<br>9 | None |
| 3. Do you enjoy reading extracurricular materials? | □Yes<br>□No | 63<br>8 | 89% |
| 4. How much time do you spend on reading extracurricular materials? | □Less than 1 hr.<br>□1～2 hr.<br>□2～5 hrs.<br>□5 hrs. or more. | 18<br>21<br>15<br>17 | None |
| 5. Would you be willing to read a book through role-playing? | □Yes<br>□No | 68<br>3 | 96% |
| 6. Do you agree that the reading style of role-playing is more attractive and would draw you back to a book when compared to the style of text-only? (e.g., playing the role of Sun-wu-kong in the Journey to the West?) | □Strongly agree<br>□Agree<br>□No comment<br>□Disagree<br>□Strongly disagree | 14<br>34<br>22<br>1<br>0 | 3.86 |
| 7. Do you agree that the reading style of role-playing is more attractive when compared to the style of text-only? | □Strongly agree<br>□Agree<br>□No comment<br>□Disagree<br>□Strongly disagree | 18<br>32<br>20<br>1<br>0 | 3.94 |

## Result & Conclusion

In this study, we wish to discuss topics relevant to internet attraction and features of online games, thus we conduct an experimental questionnaire survey to understand how readers feel about Web-based RPG Reading.

We sent out 80 copies of questionnaires to senior high school students and retrieved 71 valid copies. Compare the Question1 and Question3, We found a surprised phenomenon that is readers prefer reading extracurricular materials to playing online RPG games. The enjoy rate is 89% and 82% respectively.

In the Question5, we found 96% of readers be willing to read a book through role-playing. It's really good news to our research hypothesis. Finally, the result of Question6 and Question7 inspire us. Let us have more confidence with our research hypothesis. Using Web-based RPG Reading style to read will draw readers to a book more easily. We have discovered that Web-based RPG Reading is indeed more attractive and improves the readers'

intrinsic motivations for reading, and the readers were also very willing to experiment with such new reading style.

In Our Web-based RPG reading hypothesis, we will arrange simple multiple-choice questions based on fun and interesting plots in the story to draw the readers into the world in the book. These questions are not designed to confuse the readers but to help them be immersed in the story and become the important the roles that face the situations in the story, and the end result is improved sense of challenge and curiosity.

## Future Work

Based on the findings, we can further develop reading websites that allow role-playing and perhaps even promote the flow experience in readers who can also be challenged and to acquire new knowledge. Through such new reading pattern, we wish to improve readers' interest in reading and enhance the attractiveness of online reading in order to promote such activity throughout the society.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Storytelling and Sustained Silent Reading in Foreign Language Acquisition: Evidence from Taiwan

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*English education in Taiwan has been an issue for many years and the search for the core of the problem is still ongoing. What has been missing in our English education? This paper attempts to deal with several interrelated issues which are believed to be of vital importance when discussing the problem of our English education and when trying to determine ways of improving it: (1) storytelling as an indispensable first step; (2) storytelling as the bridge to independent reading; (3) extensive reading as the most enjoyable and effective means for continuing language acquisition, (4) extensive reading in the form of in-class sustained silent reading as the most important factor for developing one's academic language as well as writing ability. Finally, (5) I intend to hypothesize, with the support of research and theory, that there is a developmental path for foreign language acquisition which corresponds very well with first language development.*

*storytelling, extensive reading (ER), developmental path*

The results released in the 2006 PIRLS (Progress in International Reading Literacy Study) showed that Taiwan has not been successful in literacy education. With an overall rank of 22nd among the countries that participated in this study, Taiwan is below average according to many indicators, including self assessed reading ability, hours of instruction on language and reading, book collection in the school library, hours of sustained silent reading, outside of school fiction reading, outside reading for information, and outside reading for fun.

In my view, the problem is that we in Taiwan do not have a clear conception of what constitutes a successful language acquisition program and what makes literacy instruction effective. I believe this debate needs to take place within the theoretical framework of language development and second language acquisition, supported by empirical research findings. Only by scrutinizing our educational system through the lens of theory and research can we discover what has gone wrong and what can be done to remedy the situation.

## The Theoretical Framework

Language acquisition theories describe how people develop their language and literacy ability. The following are very well supported by empirical evidence, and tightly interwoven with one another.

Vygotsky (1978) discussed learning on a social and collaborative base, maintaining that children require adults' scaffolding to help them reach a higher potential in their performance.

In the context of literacy development, this claim has been elaborated by Smith's concept of The Literacy Club. Smith (1988) argues that children develop literacy by joining "The Literacy Club," the group of people who read and write. Older club members provide newer members with input, and demonstrate how literacy is used. New club members develop literacy at different rates, with no penalties.

An excellent way of inviting children to join the Literacy Club is through reading aloud to them, and telling them stories (Trelease, 2006).   It has been confirmed that reading stories to children helps their language and literacy development tremendously, and it is reasonable to hypothesize that when adults read to children, the children also develop a love for reading. Chomsky (1972) argued that the best thing that adults can do to help young learners acquire language would be to expose them to a variety of language input in the form of interesting and stimulating stories.

Since an important adult role is to provide children with large quantities of input, the Comprehension Hypothesis (Krashen, 1981, 1985) is relevant here.   The Comprehension Hypothesis states that we acquire language when we understand what we read and hear (Smith, 1983; Goodman, 1982). The Comprehension Hypothesis deals easily with individual differences, proposing that if input is comprehensible, all the aspects of language (grammar, vocabulary, etc) that the acquirer is developmentally ready to acquire are present in the input. Since there is considerable individual variation in rate of acquisition in the typical classroom, this means that any regular text following a strict sequential syllabus will not work. But comprehensible input will work, providing each acquirer with what he or she is ready for.

The Reading Hypothesis follows directly from the Comprehension Hypothesis, claiming that we learn to read by understanding what is on the printed page (Smith, 1983; Goodman, 1982) and that most of our competence in literacy is the result of reading (Krashen, 2004). Confirming this hypothesis are studies showing that integrating extensive reading (ER) into the regular curriculum (or sustained silent reading) has a positive effect on literacy development (Krashen, 2004). In these programs students get to read material that suits their level, they can read on their own pace, and they learn with more pleasure.

Since these two approaches in language acquisition and literacy development for native speakers of English have been well supported with empirical evidence, it is to our interest to investigate whether they also contribute to second or foreign language acquisition. It is also of interest to see if they can be combined and smoothly integrated into the regular curriculum to enhance foreign language education, in this case, English. Thus, the goal of this paper is to present research on how these two approaches, read-alouds and extensive reading, can help Taiwanese students acquire language more effectively and efficiently. In addition, an attempt will be made to draw *a developmental path for EFL learners* based on studies with learners of different age and educational levels.

Storytelling as the First Step to Literacy

*The storytelling research*

A number of studies have confirmed the positive influence of reading aloud on different aspects of first language literacy and language development, including overall language development, vocabulary, expressive ability and verbal fluency, and even learning interests (Chomsky, 1972; Thoreson & Dale, 1992; Ehri & Robbins, 1994; Elley & Mangubhai, 1983; Ewers & Brownson, 1999; Horner, 2004; Justice, 2002; Lomax, 1977; Snow & Ninio, 1986; Senechal, 1997; Valdez-Menchaca & Whitehurst, 1992). Fewer studies have been done focusing on how read-alouds affect children acquiring English as a foreign/second language.

Among the few studies that show the impact of storytelling on English as a foreign language, a handful were written in Mandarin and published in Taiwan. Subjects in these studies were third to sixth graders—children who had some basic knowledge of English, and had greater background knowledge than younger children. These studies were mostly qualitative, examining how children improved in learning interest, motivation and attitude, such as being more active in interacting with the teacher or asking more questions (Chien & Huang, 1999; Hsieh, 1998; Tien & Shen, 2003; Tso, 2003).

Only two studies investigated how kindergarten EFL children developed the concept of reading through stories read to them. One of the studies (Chien & Huang, 1999) used *The Emergent Reading Behavior Inventory* (a modified version of Goodman, 1982) to investigate if children behaved differently after a year of storytelling. Researchers found that children made significant progress in concepts about print, e.g. book awareness, print direction, print awareness, suggesting that children can develop print awareness through literacy activities before formal reading instruction begins. Miscue analysis results also suggested that children could use the graphic-phonemic connection to read unknown words without being taught phonics.

*Storytelling in an EFL class for more than three years*

While most of the studies mentioned above were short-term, lasting a year or less, a three and a half year longitudinal qualitative study using storytelling in an after-school program in Taiwan has provided a great deal more information (Wang & Lee, 2007). The goal of the study was to determine how time could be better spent in class and how children grew in language and learning attitude, as well as how these pupils developed into independent readers, given lots of stories, reading materials, and time to read.

Ten 4th graders participated in the program. Seven joined the project at the beginning, in

grade one, and three more joined in grade 2. All students came to class with little to some experience in learning English. Those with some learning experience had had instruction on the alphabet and some phonics, and some exposure to songs and games in their English class, which in Taiwan, is for two 40 minute periods per week in grades one and two.

The students attended a 90-minute session of English class each day, two days a week. The first 40 minutes were devoted to traditional instruction in reading, vocabulary and grammar, and practice in dialogues, an approach expected by the children's parents who sent them to the after-school program.

The core activity of the second half of the class, also 40 minutes, was reading aloud to the children with accompanying activities, including songs, chants, rhymes, poems, and drama.

The instructor noticed that the children occasionally used words that they had clearly acquired from the stories they heard. For example, children could use expressions such as "Oh, you're gross! You're so disgusting!" at the right moment; these expression were clearly from *Marvin Redpost*.

## Storytelling as the Bridge to Self Reading

*Marvin Redpost*, a series of chapter books about a 9-year old boy, was introduced in the third year of this class after more than two years of picture book reading. These books were chosen due to the stories being relevant to these children's life experience and their match to their cognitive maturity.

A ten-minute sustained silent reading period was introduced in the fourth year of the program, which the children used to read books from the Marvin Redpost series. The read-aloud activity, according to Trelease (2006), had served as a promotion to and a natural partner with reading.

Because of individual variation in level of English competence among the students, the teacher still provided picture books for use during the SSR time and would give a brief introduction about the storybooks that students might be interested in reading on their own (please see http://web.ntpu.edu.tw/~lwen/readinglab.html for *Effie's Classroom* for more information).

Creating autonomous readers is the ultimate goal of language education. Storytelling in this study successfully brought the pupils to the stage of enthusiastic independent reading.

We believe it requires a substantial amount of time for story listeners to become readers, as we saw in this study. If this development can be seen in such a classroom outside of the regular school curriculum, there is no doubt that we can do even more to help improve our foreign language education during school hours: More funding can be obtained for purchasing books, more time can be spent on meaningful storytelling, book talks, and in-class SSR. If we

make this modest investment, more competent readers will be created, with better reading comprehension, writing ability and larger vocabularies, as the research shows.

## Extensive Reading and Foreign Language Acquisition

### *Extensive reading research in L1*

Studies consistently show that children who grow up in a print-rich environment display superior competence in several different aspects of language and literacy, including syntax, vocabulary, spelling, and knowledge of history, culture, literature, and practical information (Cipielewski and Stanovich 1990, 1992; Chomsky 1972; Goodman 1982; Nagy, Herman, and Anderson 1985; Nagy, Anderson, and Herman 1987; Shu, Anderson, and Zhang 1995; Stanovich and Cunningham 1992; West, Stanovich and Mitchell 1993).

The impact of reading exposure on one's first language development has also been found for Mandarin in a survey study I did in 1995. I found that the richness of the print environment (indicated by parental education, parents' reading behavior, parents' view toward reading, and number of books owned in the home) was a significant predictor of Taiwanese senior high school students' free reading behavior, which in turn was the only significant predictor among others (leisure writing and writing apprehension) of subjects' Chinese writing performance on a nation-wide entrance examination (Lee, 1995).

### *Extensive reading survey studies in L2*

In addition to my L1 study of Taiwanese senior high school students, my survey study with EFL university students also came to the same conclusion: Free reading was the only significant predictor among others (writing anxiety, writer's block, free writing frequency, attitude toward instruction) of students' English writing ability (Lee, 2005). It was also found that the amount of free reading done could be at least part of the cure for the learner's fear of writing in English and that those who read more possess better composing strategies.

A number of other studies found that free voluntary reading or recreational reading was associated with ESL learners' writing ability (Gradman & Hanania, 1991; Huang, 1996; Janopoulos, 1986) and performance on TOEFL (Constantino, Lee, Cho, & Krashen, 1997; Gradman & Hanania, 1991). These results have clear pedagogical implications for foreign language education.

## In-Class Sustained Silent Reading

### *Empirical studies on in-class ER/SSR*

Experiments have shown that extensive reading in an SSR class, with no direct instruction on formal aspects of language, has been shown to be very effective for children, teenagers, and college students in acquiring a second or foreign language (Cho and Krashen 1994; Cho, 1995; Cho and Kim 2004; Elley and Mangubhai 1983; Elley 1980, 1989, 1991; Hafiz and Tudor 1990; Lai 1993; Lao and Krashen 2000; Mason and Krashen 1997; Mason 2003; McQuillan 1994; Tsang 1996; Tudor and Hafiz 1989; Young 2001).   More important, extensive reading is very pleasant to do and promotes a life-long approach to language acquisition and intellectual growth (Krashen 2004).

In recent years, there has been a plethora of research in Taiwan investigating the potential of extensive reading as the core element in class for English teaching.   This research has shown that students participating in sustained silent reading make gains that are equivalent to or better than gains made by comparison students in classes not including SSR, in reading and vocabulary (Cheng 2003; Hsu & Lee 2005; Hsu & Lee, 2007; Lee, 2007; Sheu 2004; Sims 1996; Yuan & Nash 1992), writing (Lee & Hsu 2007; Hsu & Lee, 2007), grammar (Sheu 2004), and attitudes toward reading (Lee 1998; Sheu 2004). However, all of these studies were short-term with no follow-up to confirm the effectiveness of in-class SSR.

I present here a brief description of three consecutive studies done with Taiwanese university students, with each study an improved version of the previous one (please see Lee, 2007, for details).

## What do we learn from the three consecutive studies?

*Study I.* The first study lasted for one semester and examined the impact of ER under less-than-optimal conditions: Students read for only 12 weeks, had access to a limited amount of reading (215 graded readers), were asked to write summaries of what they read, and their in-class reading was done only once a week. The study took place in the second half of a year-long course; the first semester was devoted to viewing films with Chinese subtitles and was taught by another teacher. The results of the pretests revealed not only students' significantly lower proficiency level before treatment, but might also reflect their low motivation in learning English.

Two comparison groups were used. Comparison group 1 used a textbook and did traditional reading comprehension and writing exercises. In comparison group 2, outside reading was encouraged, but no record of the reading was kept. In addition, the instructor of group 2 devoted about 70 to 80% of class-time to explaining vocabulary students encountered in the assigned text as well as related words. Neither comparison class did grammatical analysis or form-focused exercises. Both included discussion of culture, role-plays, discussions, and presentations, as well as direct teaching of reading strategies and vocabulary.

Results (Table 1) showed that the reading group did slightly better than the first comparison group on the vocabulary test, but the difference was not significant (p = .32). Comparison 2 did better than the reading group, and the difference fell just short of statistical significance (p = .07). On a cloze test, a measure of reading comprehension, the reading group gained just as much as Comparison group 2 without formal instruction.

Table 1. Vocabulary Test Results

| | 2000 | | 3000 | | 5000 | | | CLOZE | |
|---|---|---|---|---|---|---|---|---|---|
| | Pre/post | gain | Pre/post | gain | Pre/post | gain | Total gain | Pre/post | gain |
| Exp. (S.D.) | 41.4/45.2 (9.9)/(8.1) | 3.8 | 32.8/(35.6) (12.2)/(11.2) | 2.8 | 22.2/25.3 (10.1)/(9.8) | 3.1 | 9.7 | 37.9/44 (12)/(11.5) | 5.6 |
| Com. 1 (S.D.) | 47.6/49.1 (8.5)/(7.8) | 1.5 | 41.5/42.1 (12.7)/(12.0) | 0.6 | 31/33.2 (12.0)/(12.4) | 2.2 | 4.3 | 44/45 (13)/(12.6) | 1.0 |
| Com. 2 (S.D.) | 49.2/50.7 (4.7)/(3.6) | 1.5 | 42.0/45.1 (8.5)/(7.1) | 3.1 | 29.3/34.4 (11.0)/(8.8) | 5.2 | 9.8 | 46.3/51.3 (11.4)/(10.4) | 5.0 |

*Note.* The vocabulary level tests were taken from Nation (1990), the cloze from Mason (2003)

*Study II.* In this study, some of the flaws of Study 1 were repaired. All groups had equivalent levels of English competence at the start of the treatment and the treatment lasted one academic year.   In this study, three comparison classes (Com 1 = 40; Com 2 = 45; Com 3 = 54), randomly selected from the 26 Freshman English classes at the same university, and one experimental class (N = 67) taught by the researcher were involved, and all four groups were similar on all pretests.

The experimental group had the same treatment as those in the previous study, but with a larger book collection, 570 graded reader titles. The comparison groups had textbook-oriented instruction, reading, analyzing and discussing texts, student presentations based on issues related to the assigned readings, and direct instruction on language skills and learning strategies covered in the text. There were also regular quizzes and examinations. The vocabulary measure developed by Schmitt (2000) replaced the Nation measure used in Study I. Schmitt's measure was used to assess 2000, 3000, 5000, 10,000 and academic level words.

During the second semester, students were required to read five texts: *Stuart Little, Charlotte's Web*, *The Trumpet of the Swan*, *The Little Prince*, and *Tuesdays with Morrie.* In addition, students were required to choose another two books from a list of suggested readings. The list consisted of books related to current popular films, such as *The Bridges of Madison County*, *Bridget Jones' Diary* and books from the *Harry Potter* series, as well as teachers' suggestions.

Table 2. Gain Scores for the Vocabulary and Cloze Tests

| | DIFF pre/post | | | |
|---|---|---|---|---|
| | COMP | EXP | t | p |
| 2000 | 0.6 | 1.6 | 2.01 | 0.046 |

| | | | | |
|---|---|---|---|---|
| 3000 | 1.4 | 3.1 | 2.72 | 0.007* |
| 5000 | 1.9 | 3.5 | 2.55 | 0.012 |
| 10000 | 1.4 | 3.6 | 3.84 | 0.00013* |
| ACADEMIC | 1.8 | 2.7 | 0.55 | 0.583 |
| TOTAL | 7.3 | 14.4 | 4.35 | 0.000014* |
| CLOZE | 4.9 | 5 | 0.01 | 0.99 |

This study resulted in a modest victory for the group that did self-selected reading followed by assigned reading over traditional instruction in vocabulary growth, and a tie in reading comprehension, as measured by the cloze test (Table 2). A likely candidate for the unimpressive results on the cloze tests is the kind of books that were assigned. The list consisted of books that teachers felt were interesting; teachers' views, however, may not be the same as students' views (Ujiie and Krashen 2002). In fact, some students remarked that they merely flipped through the pages of the assigned books, with little comprehension, and several students considered E.B. White's books too childish. With such a lack of enthusiasm about the reading, in fact, one wonders how the students made as much progress as they did.

*Study III.* The purpose of this study was to compare another version of SSR—a full year of self selected reading — with assigned reading. In this study, the comparison groups used in study II were combined to form one comparison group, since the measures used and the duration of instruction were the same.   Subjects in the experimental group (Exp 2, N = 41) did self-selected reading, choosing from a collection of about 1200 titles for one academic year. Experimental group 1 was the assigned reading group from the previous study, presented here again to facilitate comparison.

Table3. Means and Standard Deviations on Gains

| Groups | | D2000 | D3000 | D5000 | D10000 | DACADE | DTOTAL | DCLOZE |
|---|---|---|---|---|---|---|---|---|
| Com | Mean | .66 | 1.5 | 2.0 | 1.4 | 1.8 | 7.2 | 4.6 |
| | SD | 2.5 | 4.1 | 4.4 | 3.8 | 4.8 | 11.3 | 6.7 |
| Exp 1 | Mean | 1.6 | 3.1 | 3.5 | 3.6 | 2.6 | 14.4 | 5.0 |
| assigned | SD | 4.0 | 3.8 | 3.6 | 4.1 | 4.8 | 10.8 | 7.6 |
| Exp 2 | Mean | 1.3 | 4.2 | 4.4 | 4.3 | 2.9 | 17.0 | 14.6 |
| Self-selected | SD | 3.1 | 4.5 | 3.2 | 3.3 | 4.1 | 11.1 | 7.4 |

Table 4. Multiple Comparisons with Scheffe Post Hoc Test on Gain Scores

| | (I) GROUP | (J) GROUP | Mean Difference (I-J) | Std. Error | Sig. |
|---|---|---|---|---|---|
| D2000 | Com | Exp1 | -.8879 | .4705 | .17 |
| | Com | Exp2 | -.5878 | .5689 | .59 |
| | Exp1 | Exp2 | .3000 | .6222 | .89 |
| D3000 | Com | Exp1 | -1.6830 | .6185 | .03* |
| | Com | Exp2 | -2.7324 | .7478 | .00* |
| | Exp1 | Exp2 | -1.0494 | .8180 | .44 |
| D5000 | Com | Exp1 | -1.6613 | .5873 | .02* |
| | Com | Exp2 | -2.3291 | .7102 | .01* |
| | Exp1 | Exp2 | -.6678 | .7768 | .69 |
| D10000 | Com | Exp1 | -2.1937 | .5708 | .00* |
| | Com | Exp2 | -2.7911 | .6902 | .00* |

| | | | | | |
|---|---|---|---|---|---|
| | Exp1 | Exp2 | -.5974 | .7549 | .73 |
| DACADE | Com | Exp1 | -.8335 | .7082 | .50 |
| | Com | Exp2 | -.7194 | .8564 | .70 |
| | Exp1 | Exp2 | .1140 | .9367 | .99 |
| DTOTAL | Com | Exp1 | -7.2593 | 1.6283 | .00* |
| | Com | Exp2 | -9.1598 | 1.9689 | .00* |
| | Exp1 | Exp2 | -1.9005 | 2.1536 | .68 |
| DCLOZE | Com | Exp1 | -.3687 | 1.0817 | .94 |
| | Com | Exp2 | -9.9542 | 1.3080 | .00* |
| | Exp1 | Exp2 | -9.5855 | 1.4307 | .00* |

*Note.* The mean difference is significant at the .05 level.

Results shown in Tables 3 and 4 indicated that Experimental groups 1 and 2 (assigned SSR and self-selected SSR) significantly outperformed the combined comparison group on the 3000, 5000, 10,000 vocabulary level tests. As in Study II, there was no significant difference among the groups in the gains on academic level words, although both experimental groups made slightly better gains than comparisons in raw scores. As for the cloze test, the self-selected reading group (Exp 2) performed significantly better than the comparison groups combined and also outperformed the experimental group that did assigned reading in Study II (Exp 1).

This result confirms the importance of fully respecting students' free selection of materials, a practice that gives them the responsibility for their own learning and enhances their motivation to read. Students' logs confirmed the benefits of self-selection. While students in Experimental Group 1 found E.B. White boring, the Experimental Group 2 students' choices were "so interesting and fun to read."

This series of studies was intended to contribute to providing a more solid basis for the design of SSR programs for EFL students. The results provide a response to some of the concerns and doubts some might have about integrating extensive reading into the curriculum. First, the longer the duration, the better the results. Second, the criticism that extensive reading "takes time," and we need to accelerate students' acquisition of English through more systematic instruction and output practice on the underlying sub-skills and learning strategies has been answered. Mason's study (2003) also found that more writing practice does not help with writing ability. Finally, without formal instruction, the reading group made the same gains as comparisons on academic level words.

## Implication: A Developmental Path

From the L1 research established so far, we can observe a clear developmental path for L1 speakers' language acquisition from being read to in their early childhood to free voluntary reading for pleasure and a higher level use of the language. The idea of using storytelling as the first step in introducing a new language is rarely found in the ELF professional literature. According to my own observations, the main component of instruction

in the elementary English classroom in Taiwan is instruction on the rules of phonics and letter-sound correspondences and memorization of vocabulary, supplemented with games and dialogues that do not really match children's interests nor meet their needs. Rules can be abstract, boring and confusing to EFL children when no comprehensible, compelling, and meaningful input is supplied. According to Smith (2003), "…both boredom and confusion are aversive; they are not natural states to be in" (p. 6). There is no reason for this: EFL children do not have any "urgent need" to acquire English. The only motivation that works for them is fun and pleasure.

The three year exploratory study in the after-school program reported above tells us that it is possible to teach EFL children with little or zero English background by using storytelling. These children began to do independent reading after two or three years of read-alouds, just as L1 children develop language following this natural route.

If these children are able to read chapter books in grade 4, they will be able to do more reading in their junior high, senior high, and college years, as long as reading material is made available for in-class SSR.

From the studies I conducted with university students, I found that most students found even low-level graded readers difficult, readers containing 300 to 3000 headwords. This was the case even though all had memorized up to 7000 English words in preparation for the college entrance examination. This fact suggests that if words are not acquired through meaningful contexts, they are not retained, and the time spent in memorization has not been worthwhile (Krashen, 2002).

There is obviously an obstacle for EFL learners on their journey of English language acquisition; it is not because they started late, but because they started with the wrong approach. The developmental path for EFL learners should correspond with first language development, starting with reading lots of stories, moving on to longer texts such as chapter books, providing more abundant materials for self-selected reading, and allowing time especially devoted to self-selected reading.

Revisiting the results from PIRLS and the studies presented in this paper, I have come to the conclusion that "no instruction" is better than "poor instruction." Bad English classes leave a bitter taste forever. And the harder we try to force English down children's throats, the worse the situation gets. Just as Plato wisely put it, "Compulsory physical exercise does no harm to the body, but compulsory learning never sticks in the mind." (*The Republic*, Part VIII, book 7, pages 269-270, translated by Desmond Lee, London: Penguin, second edition, 1974).

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Sunday, October 7, 2007

## YOUR OPINIONS

(EDITOR'S NOTE: The following letters were submitted by Lakeview High School students enrolled in "Introduction to Information Literacy," an online hybrid course using the Blackboard Content Management System.)

Banned Books Week celebrates freedoms
Did you know that Sept. 29-Oct. 6 was Banned Books Week in our community? Banned Books Week is not only celebrated by our community but is supported by the American Library Association and various other professional organizations.

Banned Books Week is all about people celebrating the freedoms that they have with their reading material. Over the years there have been many attempts to exclude books from libraries due to questionable content. Twelve years ago in our community, there were battles over books in the school libraries. In a particular elementary school, a parent attempted to get a book about witches and Halloween out of the school library.

Although she was unsuccessful in getting the book out, we as a community need to look deeper into what the effects of censorship of material can do to a community. If we start eliminating material bit by bit for reasons of inappropriate content and other various reasons, who is to say that in the future that people won't start eliminating other irreplaceable information from our libraries?

Libraries are places meant for everyone and anyone who is in need of information or people who simply want to relax while reading a good book. A library should be a safe haven of information. How can a person feel comfortable knowing that at any time someone can put a stop to his or her learning opportunities? So in conclusion, Banned Books Week helps make people aware of what they have and what they could lose.

Katelynn Wright

We have right to intellectual freedom
I believe that it is important to recognize Banned Books Week. This gives an opportunity for people of all backgrounds to read what they want. Every American citizen has the right to freedom of thought and freedom of speech. A book should not be banned for some reference to sex, or some violence. In other words, every citizen should have the right to intellectual freedom. Intellectual freedom gives every individual to both seek and receive information from all points of view without restriction.

Looking back in 2006, the primary reason for banning books was based on sexual content and offensive language. I think that the American people need to open their eyes and look at all of the movies that came out in 2006. If parents are that worried about what their children read, they should also keep less of a closed eye on what their children are watching. Personally, I would rather have my child become aware of the violence, sex, drug use, etc. in a book rather than a movie and actually seeing those actions being done.

Banned Books Week has been observed since the year 1982, supported by the American Library Association and other professional organizations. Since that time, there has been quite an increase in technology. With the growth of the Internet, all barricades are broken down and children are being thrown into the world of online chat with complete strangers and exposure to pornography. A person who reads a book cannot help but learn something rather than just stare at a screen as do most American citizens today. Being glued to a computer screen or a television screen does not require the same mental concentration as does reading a book.

Yes, parental controls should exist. But what is this world coming to if a person cannot read a certain book because of a reference to some inappropriate subject? I could have sworn we were America, the land of the free.

Lacey Wiseman

Don't take freedom of choice for granted
Banned Books Week, where people celebrate the freedom of choice and expression even if that clashes with the mainstream idea, was observed Sept. 29-Oct. 6. This week represents a fundamental personal freedom.

In the Lakeview School District, there were problems with book challenges and issues involving "inappropriate" books in 1994 and 1995. Reading articles in the Enquirer from that era sparked feelings of anger. I was reminded of McCarthyism and the Salem Witch Trials: periods of fear, skepticism and confusion. Needless blame was placed on innocent shoulders, when the real problem rested on the insecurities of the accusers. It was a mass bandwagon of confusion where many innocent bystanders were run over.

Parents are concerned about their 14- and 15-year-old children being exposed to "negative influences." Society today is much different than 20 years ago. Profanity, sex and gore have become more acceptable in today's society. Fewer words have been "bleeped" due to loopholes, "closeness" is promoted because sex sells, and gore makes entertainment scarier.

Something parents also need to know is that libraries don't blindly choose books. There is an awareness of each book within the library (especially in school libraries). With the availability of MeLCat (the statewide resource sharing network), library staff at Lakeview High School also review and screen interloan requests ordered by students.

Books depicting witches, superheroes and fantasy creatures are often challenged. It is argued that "supernatural" literature pieces are too frightening and have satanic religious elements. Novels such as "Harry Potter," "A Wrinkle in Time" and "James and the Giant Peach" are among the top contested books. These stories don't encourage kids to practice witchcraft or the black arts; they entertain and provide a safe, enjoyable form of recreation.

Adult themes are also a source of contention. Works such as I" Know Why the Caged Bird Sings," "The Adventures of Huckleberry Finn," "Of Mice and Men," "The Catcher in the Rye," "To Kill a Mockingbird," "Lord of the Flies," "Flowers for Algernon" and other acclaimed titles are most frequently on the hit list. I was taken aback by challenges to Nobel and Pulitzer Prize winners. People are so caught up in their own insecurities that they miss the great literary talent of notable authors.

The novels that have been the most challenged are out on display for the world to read during Banned Books Week. This isn't a Lakeview School District thing but a nationwide event. It celebrates a freedom that we take for granted. Banned Books Week should be promoted. If you are opposed, then don't involve yourself; but if you are interested, then you should have the right to express that desire, and you will be more than welcome to come and read.

William Long

*Figure 9.* Letters to the Editor from Lakeview High School students.

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Students were formally assessed by means of the online tool TRAILS discussed earlier. Fall term library assistants only participated in a posttest, administered at the end of the semester. However, second term library assistants were to be tested at both the start and conclusion of the semester. As part of the course evaluation survey, library assistants were asked to supply their definition of an information literate student as seen in Figure 10. The TRAILS data and student feedback will be used to suggest changes and improvements in any restructuring of the Introduction to Information Literacy course for the 2008-2009 school year.

A student who is *information literate* would know how to do research, find books based on a certain topic, and understand copyright and plagiarism. If you can do those things correctly, then you know how to handle information.

Based on my experience in this course, the qualities a student must have to be *information literate* include knowing how to search the Internet rather than just doing a Google search! It is important to know how to broaden or narrow your search to get the information which you need. You should be familiar with your school's databases and understand MLA citation format.

A student who is *information literate* is someone who is able to use resources to the best of their ability. They are able to use a source and find their information without much struggle. An *information literate* student is a productive user of the Internet and capable of safely researching in an intelligent way.

I would say that modest and informed would be the two top characteristics of an *information literate* student. You learned many different things and ideas throughout this course. You gained a level of leadership, respect, compassion, and confidence. You now have the information necessary to guide those who need assistance.

*Figure 10.* Information literacy defined by Lakeview High School library assistants.

## Dissemination of Online Course Experience

Before looking ahead to modifying Lakeview High School's first blended online course, it is worth mentioning efforts to disseminate results of this year's Blackboard experience. How were Lakeview classroom teachers able to benefit from the library media center's venture into online learning? What attempts were made to reach out to school library colleagues involved in similar online library media curriculum projects?

Collaboration with colleagues was an essential priority for this school year in the interest of impacting student achievement (Haycock, 2007; Rosenfeld, 2007). The library media specialist worked with fellow teachers to incorporate various online information literacy activities from the Blackboard course into instructional units taught in other academic departments at Lakeview High School. For example, as part of an assignment for a unit focusing on Web 2.0 tools (coinciding with the observance of Teen Tech Week, March 2-8, 2008), library assistants in the Blackboard course learned how to set up Blogline accounts (Figure 11). Students in a Global Economics course then engaged in a similar project, co-taught by the classroom teacher and library media specialist. Students created aggregators to bring in news feeds and also

search alerts from the library's subscription databases. The Global Economics course is designed to provide students with knowledge and tools needed to make rational economic decisions for themselves and our nation while also developing critical thinking skills with which to address the challenges and complexities of globalization. The inclusion of the Bloglines project allowed students to demonstrate mastery of technology tools for accessing information and pursuing inquiry as set forth in standard 1.1.8 (AASL, 2007). As more online instructional activities of this type are added to Global Economics, the course is being considered a possible means to fulfill the MDE 20 hour online learning requirement at Lakeview High School.



*Figure 11.* Instructions that were given to students for setting up a Bloglines account, available at http://www.lakeviewspartans.org/webpages/mlincoln/files/BloglineBlackBd.doc.

Other opportunities for lesson collaboration and information literacy skills integration occurred as English classes undertook the traditional major research paper assignment. Instead of delivering a one-time lecture about library materials, the media specialist offered more in-depth guidance in finding, selecting and evaluating information resources along with background on source citation. This instruction was provided face-to-face during class time but was also reinforced through online tutorials and guides which were developed by the library media specialist and which students could access independently (Figure 12). An enduring understanding of the research paper assignment is that building an effective argument hinges on the organization and synthesis of credible researched materials. Thus, according to standard 2.1.1 (AASL, 2007), students continue an inquiry-based research process by applying critical-thinking skills (analysis, synthesis, evaluation, organization) to information and knowledge in order to construct new understandings, draw conclusions, and create new knowledge.

*Figure 12.* SchoolTube and TeacherTube instructional videos about Michigan eLibrary databases and MeL Catalog are available at http://www.schooltube.com/default.aspx?vid=6240 and at http://www.teachertube.com/view_video.php?viewkey=4c475f4729d0e2b42a14.

      Collaborative efforts in the online learning environment extended beyond Lakeview High School. The networking resources of the Michigan Association for Media in Education (MAME) were called upon to connect with other school library media specialists in the state who might be piloting their own versions of a comparable online information literacy course. A message was posted on the MAME listserv resulting in several responses from colleagues willing to share experiences. Online library media courses have been developed for student assistants (Carmen Ainsworth, North Branch, and Brandon High Schools) but also for entire groups of students such as the freshmen class (Grosse Pointe North High School). Both Moodle (Figure 13) and Blackboard (Figure 14) are being used to deliver course content.
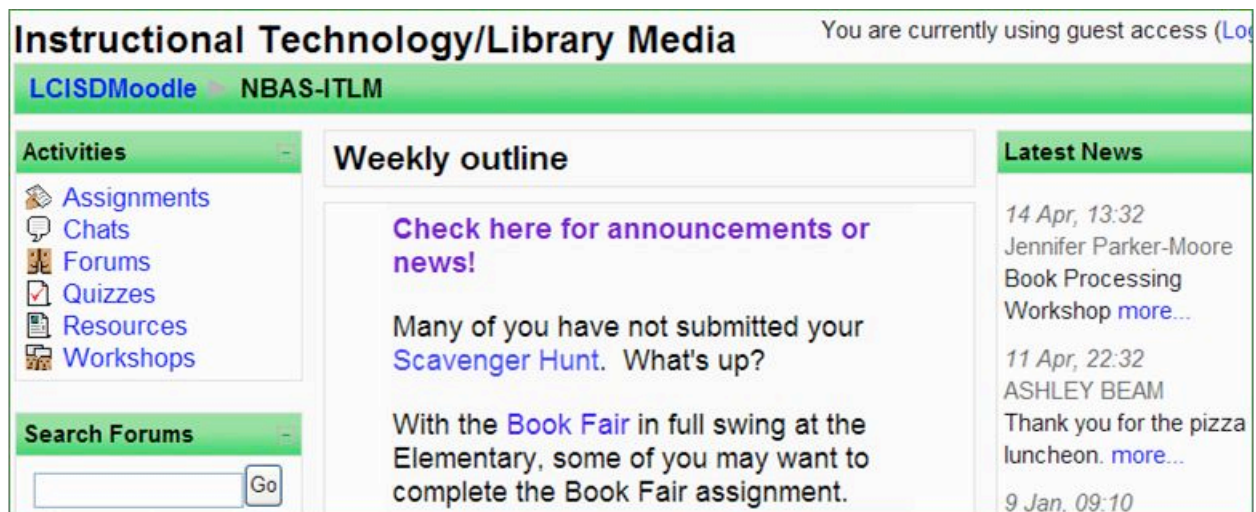


*Figure 13.* Announcement on North Branch Area Schools Moodle course site.

*Figure 14.* Announcement on Grosse Pointe North High School's Blackboard course site.

Exchange of ideas, suggestions for online course content, and plans for possible joint projects between schools are already taking place. Table 4 gives contact information and brief overviews for these Michigan providers of online library media courses. Figures 15 and 16 show screen shots of a wiki set up at http://remc12.wikispaces.com by Lakeview High School Library to facilitate development of additional online courses that promote information literacy skills.

Table 4

*Library Media Curricula in Michigan*

| Contact Information | Course Title and Description |
|---|---|
| Andrea Atkinson Carman-Ainsworth High School aatkinso@carman.k12.mi.us | *Media Apprentice*: In order to promote information literacy skills and to maximize library use, this course provides students the opportunity to partake in an experiential learning course that coincides with the individual EDP. This course provides an online learning experience, reinforces the Michigan High School content expectations of Technology, English Language Arts, and Career and Employability Skills and incorporates the Information Literacy Grade Level Expectations as outlined by the American Library Association. *A Blackboard course.* |

*(table continues)*

Table 4 *(continued).*

| Contact Information | Course Title and Description |
|---|---|
| Jennifer Parker-Moore, Ed.D<br>North Branch Area Schools<br>jpmoore@nbbroncos.net | Instructional Technology/Library Media: Students will develop information and technology literacy using the Big6 Model in a library media environment.  Students will develop a working knowledge of library operations and become comfortable with search strategies using online databases, materials acquisition, circulation and patron relations, library operations, and research skills. This course teaches information problem solving strategies for lifelong learning. *A Moodle course.* |
| Sarah Sindelar<br>Brandon High School<br>ssindelar@brandon.k12.mi.us | Introduction to Information Skills: This class is designed to introduce the college bound student to the concepts of information literacy. Living in the information age students are often competent surfing the web, but have great difficulty finding credible authored, edited, published information on a given topic in a reasonable amount of time. This course aims to familiarize the student with the daily operations of the library, MARC records, interlibrary loan, building search strings and queries, advanced web searching, Boolean operators, webpage evaluation, in-depth database searching, copyright, fair use, citing sources, plagiarism, information literacy models, and the profession of librarianship. Students will experience four books in print or audio format and will create book reviews to share with the BHS community. Students accepted into the course will need to display a high degree of self-direction. *A Moodle course.* |
| Karen Villegas<br>Grosse Pointe North High School<br>Karen.Villegas@gpschools.org | GPN - Information Literacy: This course was conducted over a two-week period for all freshmen in 2007-2008. The purpose of the project was to create an online experience for students to learn information literacy skills necessary to be successful as a student and citizen in the 21st century. Designed to be embedded into social studies and language arts content, the project addressed AASL Information Literacy Standards for Student Learning and the Michigan METS while promoting collaboration between school library media specialists and classroom teachers. The course meets the Michigan online learning requirement and employs the Big6 approach to information problem solving. For the next school year, the curriculum will be incorporated into a new "Digital Seminar" that focuses on digital communication. *A Blackboard course.* |
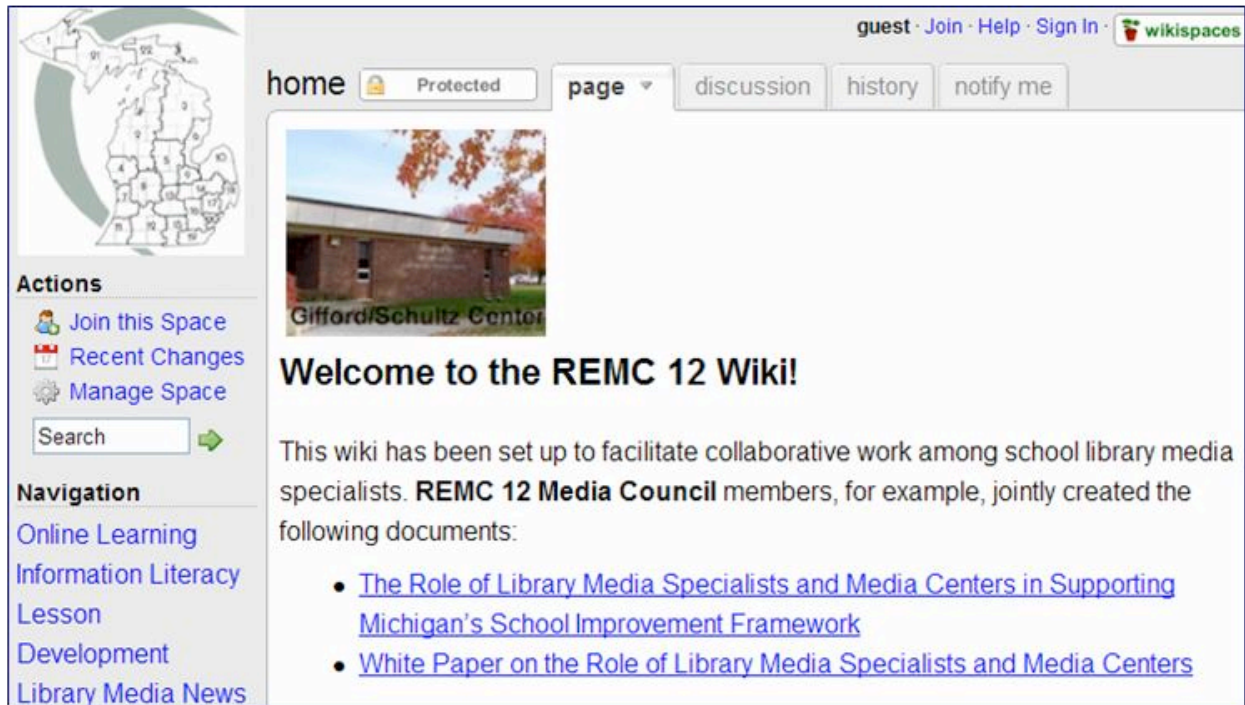
*Figure 15.* REMC 12 wiki set up to promote collaborative efforts in online learning.
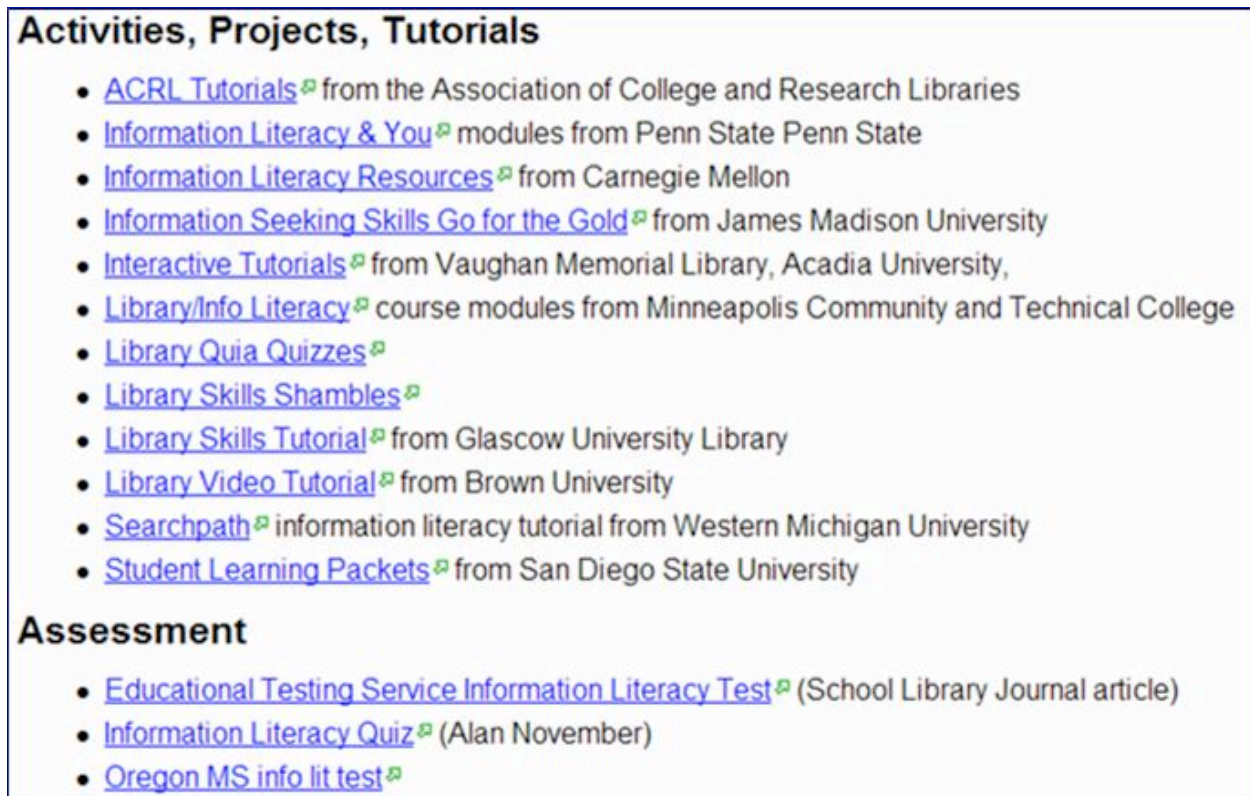


*Figure 16.* REMC 12 wiki page with online information literacy tutorials and assessment tools.

The Common Beliefs section of the new AASL (2007) *Standards for the 21st-Century Learner* challenges school librarians to collaborate with others to provide instruction, learning strategies, and practice in using the essential learning skills needed in the 21st century. Heisey and Thom (2007) concur that a vital component of any successful library media program is the formation of partnerships. Rather than working in isolation, a library media specialist must reach out to colleagues and collaboratively design, teach, and evaluate units of instruction. Library media teachers must be partners in the educational process if they want to play an integral role in curriculum, instruction and assessment. In the new online learning environment, library media specialists are creating an infrastructure to support the dynamic and evolving ways that students and teachers use information resources. Through the support of our professional organizations such as the International Association of School Librarianship and through the efforts of practitioners, school libraries are working to achieve world class learning and literacy.

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## *Biographical Notes*

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## Statement of Originality

This is to certify that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author alone and has not been published elsewhere. All information and ideas from others is referenced.

Biography:
Gateway to Learning and Literacy

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*For youth, biography exerts an enormous influence on information about current society and how youth can live productive lives.   Biography offers a means of graining knowledge, but it also is an avenue that helps youth monitor theirown lives and values.  Biographical resources are abundant, and this vast resource assures that biography will always play a paramount role in how youth learn about themselves and how they gain new knowledge and insights about the world.  Teacher-librarians and teachers play important, collaborative roles in making good biographical materials available and helping youth learn how to use biography for learning and enjoyment.*

*Biography, Personal Development, Collaboration*

## Introduction

Biography it is a powerful avenue for learning; and biography has an enormous influence on information about current societies and how youth can live productive lives within them.  For youth, biography offers a means of gaining knowledge, but it also is an avenue that helps them monitor their own lives and values. In modern societies, biography impinges on political and social discourse and it is often framed by celebratory media-driven popular culture.  Celebrity biography, aided by television, sports, and music is a hallmark of twenty-first century life. Although celebrity biography is important in the lives of most youth, it is only one form of biography among a vast array of biographical information. This vast array of materials assures that biography will always play a paramount role learning in the development and maintaining of school library collections.  The question is how do we manage it in productive ways so that it contributes to learning and the developing of literacy?  How do we begin this important discussion?  I suggest that we begin with a look at national biography.  All nations have a national biography and this can be used well to promote learning and literacy.

## National Biography and Social Dialogue

National biography arises from a nation's history, current affairs and popular culture.  A national biography influences and shapes a sense of national identity and it celebrates national values. Modern mass media, for good or bad, throughout the world contributes greatly to the shaping of national biography in that it helps develop a sense of national character and identity and it plays important roles in framing and sustaining a sense of national pride and purpose. Good examples of this are found in sports. National pride often comes from a winning team in international competition and also from the achievement of success that comes from a native son or daughter associated with a country.  In the United States, we have many examples of this

including those of Governor Arnold Schwarzenegger a native of Austria and Senator Obama, whose ancestry is linked to Kenya.

## Elements in a National Biography

Often a nation's biography is presented and codified in august, scholarly reference works such as the *Dictionary of National Biography* (DNB) for Great Britain and countries closely tied to it through history. The *Dictionary of American Biography* (DAB) gives similar attention to important Americans and others closely associated with the development of the United States. Subjects covered in the DNB and DAB are notable for their variety. Biographies range from men and women of laudatory stature to criminals. Such variety of coverage is one of the hallmarks of a national biography--it reflects national identify, character, and national conflicts. A nation is never perfect, and personalities that make up its national biography are not perfect. Biography reflects hidden desires, collective anxieties, human weaknesses and all the drama and suspense of life (Pardes). Teachers and librarians can use these imperfections to help build critical thinking skills and literacy.

Biography is a useful tool in developing nationalism, but critical thinking as a major component of learning requires us to look very closely at the role of nationalism in modern societies. We should always remember the words of Nobel Laureate Albert Schweitzer when he said that the worse kinds of nationalism separate people (Schweitzer). National biography also reflects the psychology of nation. Psychology of a nation is its collective behavior and mental characteristics. Nations can exhibit characteristics of racism, xenophobia, sexism, and other forms of fear and hatred as well as a sense of humanity, openness, justice, fairness and trust. Again, learning and critical thinking skills using biography play a role in helping youth understand forces that form a national psychology.

National biographies written for youth tend to reflect much of what is expected of youth within their societies. Questions of how individualism is viewed within a nation and how youth are encouraged and expected to develop their identities, values, and loyalties in accordance of national purposes and goals are systematically presented in biographies for youth. I would now like to consider some of the major forces in biography today and now teacher-librarians and teachers can use them to better promote learning.

## Biography as a Political Process: Journalism and Reporting

Since 1975 in the United States and elsewhere a new type of biography has appeared that has captured the public's interests. These new writers often come to biography from journalism and investigative reporting. Investigative journalists, perhaps more than academic writers, feel it is their obligation to assess personality, intellect, emotional status, and the moral character of their subjects (Weinberg, pp. 1-2). Although there is a danger of abuse and we do have many examples of recent investigative biography that might be called "muckraking" in their research and approach, quality investigative biography adheres to rigid standards of writing and reporting; and if they violate these standards, they are accountable to their readers and to society as a whole (Weinberg, pp. 19-35).

Biographies written about outstanding investigative reporters themselves make excellent reading in their own right.  These biographies help us better understand the society in which these reporters lived and the social and cultural problems that they faced as writers and reporters. For example, nineteenth century reporter Nellie Bly using investigative reporting, exposed the blight of the mentally ill and brutal factory working conditions in late nineteenth-century America.  Another reporter and writer from the nineteenth century, Ida M. Tarbel, worked to expose the dishonest and heavy-handed business practices of the Standard Oil Company, leading directly to its restructuring by the United States government.  These are good examples of how biography can be used to teach history and the influence of government and commercialism in the lives of all citizens, as well as how persons in all walks of life contribute to national and even international character through their biographies.

## Biography in Cinema and Television

We live in a media-driven age. Films and television dominate our cultural and social life. Biography is very much a part of film culture, and for that reason most agree that we must pay close attention to how biographical information is presented through these film media, and how presentations can affect attitudes, behavior, and values.

Biography has been a part of film culture since the beginning of the film industry in the nineteenth century. Between 1927 and 1960, some 300 biographical films were produced (Custen).  The 1970s witnessed a watershed of biographical and autobiographical films.  Similar to books, filmed biography addresses issues and needs associated with history, national memory, nationalism, and personal identity.  Like books, film biography offers a means of expression for groups marginalized by reasons of race, gender, ethnicity, sexuality, and class.  Filmed biography is also a means whereby nations and regions can assert their claims to special identities.  Some critics hold that often film biography can well challenge print and other media in creating powerful biographical images and statements (Everett).  For example, the 2006 film *The Queen*, starring Helen Mirren as Queen Elizabeth II attempts to show the conflicts arising within the British Royal Family when royal decorum and tradition clashed with public expectations and political needs concerning the role expected of the Royal Family immediately after the sudden death of Princess Diana.

Television in the 1950s, often called the golden age of television in the United States, produced a number of noteworthy biographical and historical programs.  These include Walter Cronkite's *You Are There* (1953-57), *Eyewitness to History* (1961-62), *Twentieth Century* (1957-67), and Edward R. Morrow's *See It Now* (1951-58).  Biographical and historical documentaries of the early 60s often challenged American sensitivity with accounts of farm labor exploitations and the emerging gay and lesbian subcultures.  Edward R .Morrow's contributions through his *Person to Person* (1953-59) program succeed in solidifying the role and influence of the rich and famous in American popular culture.  Aside from these programs, television then as now often blurs the distinction between reality and fiction.  Examples of this can be found in the popular celebrity programs of the 1950s, 60s, and 70s based on the fictionalized lives of Desi Arnaz and Lucile Ball, George Burns and Gracy Allen, and Ozzie and Harriet Nelson (Classic TV).

Today's configuration of biographical information found on television outlets in many countries include talk shows, news magazine programs, interview shows, game shows, and reality shows revolving around personal lives. Content can range from the serious to the lighthearted, including topics such as exercise, health information, domestic issues, and romance. Some social observers maintain that the popularity of biographical programs featuring both the famous and the ordinary is based on our human need for intimacy and community, a commodity that is becoming increasingly hard to find and maintain in our modern, urban world.

Television, along with cinema, offers powerful social dialogue and a means of helping youth evaluate and structure their lives. As such, film plays a huge role in shaping a sense of identity for youth. For that reason alone, teacher-librarians, teachers, parents and other caregivers must help youth assess and judge what they see in film and help youth to learn how to monitor their own values apart from what is given to them through these enticing film presentations.

## Biography and the Internet

The Internet also has a profusion of biographical information including sites and blogs hosted by little-known individuals. These personal sites and postings often reveal political, religious, and social values and activities, as well as personal information about marriage, and careers. Other sites and blogs highlight public personalities. These sites can honor and celebrate public figures such as politicians or they can denigrate them.

Biographical information is also maintained through official websites such as the American White House, (http://www.whitehouse.gov), royal families such as those in Great Britain (http://www.royal.gov.uk); Denmark (http://kongehuset.dk); and the Netherlands (http://www.koninklijkhuis.nl/UK/welcome.html). Various governors and ministers in the United States and elsewhere also maintain official websites. Although these offer official information, they also emphasize the prevailing political and social agendas of the office.

As we know, the Internet is well used by youth. This acceptance again offers teacher-librarians, the opportunity to guide and lead youth to a better understanding of how to evaluate this personal, social, and political information so readily found on the Internet. Likewise, it offers teacher-librarians the opportunity to help youth better understand how to protect themselves from its abuses and misinformation.

## Filmed Biography and Visual Literacy: Classroom and Library

The United States government recognized film as an effective means of mass instruction during World War I. The country's armed forces faced the enormous tasks of educating and training large groups of people in such diverse subjects as weaponry, health, and prevention of sexually transmitted diseases (Saettler, pp. 184-94). Educational films for classroom use were introduced prior to World War II; and as early as the 1920s, the first standards for American school libraries recognized the value of film materials for instruction (National Education Association and North Central Association of Colleges and Secondary Schools) .

Films are used in a variety of ways--to enhance cultural and historical awareness. For the general youth population, filmed biographical products have a role to play in improving visual literacy, fostering better logical thinking, and increasing knowledge about history, society, and current affairs. The use of films in both classroom and library offers avenues for teacher-librarian and classroom teacher collaboration. The teacher-librarian must know curriculum and how film might enhance the learning process in the classroom. The teacher-librarian can facilitate the selection of film in collaboration with teachers.

Not only can film provide information, but youth need to be taught to see film as only one of many ways of presenting information. Like all information products, it is driven by human personalities, needs, and social and political agendas. Youth need to know how filmed biographies are conceived, how biographical subjects are interpreted, what sources are used to inform these interpretations, how the film is scripted and dialogue managed, what visual clues are used to advance concepts and information, and how the film is finally edited and focused for the audience. With film, youth must be encouraged to be visually aware and visually skilled as they ponder the legitimacy of filmed biography.

## Popular Culture, Biography and the Modern Hero

Popular culture is both a process and a product and it has always influenced how librarians and teachers respond to its demands. Popular culture is a process because it arises from life and continues to change and develop based on the events from ordinary life. The life that sustains and nurtures it may be global, national, regional, or local. Although popular culture is often hard to define, it is generally recognized as being "the behavior patterns of the great mass of people in a given region at the present time." On the other hand, high culture "is the culture of the elite and usually refers to artistic endeavors such as classical music, dance, theater, certain writings, architecture, etc." (Harmon).

Popular culture as a process creates and distributes products such as film, television, music, styles and fashions, sports, cyberculture, advertising, toys, and print items (books, novels, comics, magazines). Popular culture is also reflected in issues and attitudes concerning racism, class, gender, sexuality, politics, ethnicity, and political and social processes by which groups are marginalized.

School librarians often find themselves obligated to support both popular and high culture; and this obligation has not come without a struggle. In terms of literature and literacy, traditionally, public youth librarians as well as school teacher-librarians have often favored high culture over popular culture. Public youth librarians have often embraced popular culture in an attempt to attract and keep an elusive and ever-changing audience. Perhaps school librarians have had an easier time following a more restrictive view of popular culture than public youth librarians because they have had to support curriculum mandates designed to encourage the development of higher cultural attainment. Although youth librarians in public libraries have had to meet some of these obligations as well, they must also meet obligations enforced by satisfying popular public demands.

As we know, today's popular culture is celebrity-driven.  Most, if not all, world cultures have celebrities.  In modern societies today, the public's fascination with celebrities has created a huge industrial and media complex worth billions of dollars. Celebrities rise and fall based on talents and gifts that the public wants and admires; and this fame and fortune often rest with favorable media coverage.

Among others, today's celebrities include movie stars, selected monarchs, talk-show hosts, newspersons, sports figures, politicians, and statesmen and stateswomen.  Celebrities also include local personalities.

Sometimes celebrities are held up as heroes; but to do this they must exhibit the characteristics of hero as well as a celebrity.  The ability to move from celebrity to hero is often tied to the psychological needs of a society at a given time.  For example, John Wayne, the American movie actor was able to move from the role of a minor western actor to a celebrity role as a major film actor to that of a national hero. Apparently he exemplified and became an icon for the perceived values of the culture from which he arose (Willis).

## Mass Media, Culture, Celebrities, Heroes and Youth

Culture, celebrities, the mass media, and youth all play a role in defining who we are in the modern world.  Because of this complex intertwining, it is difficult to clearly see how one of these affects others and how they affect our view of modern life and how we create and identify with heroes and celebrities.   Writer Joshua Gamson believes that the public's responses are varied and contradictory.  To him, the attention the public gives to celebrity is much like sport and trivial pursuits and offers a means or outlet for catharsis or criticism (Gamson).  Gamson further noted that in the early twentieth century, biographical narrative explained celebrity in terms of merit and presented the public's expectations that their heroes be meritorious.  As the influence of public institutions such as churches, schools and families lessened, mass communication grew, and advertising advanced, becoming more psychologically and sociologically sophisticated.   Audience became more powerful and demanding, and the biographical narrative moved to one of artificially manufacturing and producing celebrities (Gamson, pp. 1-24).  Garry Willis used the images of John Wayne to analyze the politics of celebrity in American society.  He found that in the case of Wayne and his films, there was a progression from representing naïve virtue, to acceptance of heavy and even dark responsibility, and finally to accepting individualism with honor (Willis).

Gill Lines notes that sports figures traditionally have been held up as highly regarded examples of social ideals and masculine virtues.  Solid values learned on the playing field were thought to transfer easily into life.  Lines contends that modern mass media has intruded on these concepts and has created a damaged male sports hero.  Mass media can often violate the ideals of the male sports heroes by labeling them as drunkards, illegal drug users, rapists, and wife beaters.  On the other hand, mass media have also created unrealistic ideas about sports heroes.  Because the public pays attention to sports and the people that play them, the mass media aggressively create images that will attract readers. In doing this, mass media play a decisive role in determining how sports heroes are characterized and models developed.    In exerting its power to mold and shape images, the mass media have largely ignored or marginalized female

sports heroes.  Lines maintains that these images do not necessarily reflect how young people see their heroes (Lines, pp. 285-303).

Sociologist Alan Edelstein argues that the role of hero in American society and probably elsewhere, has changed over the years.  In former times, the status of hero could be placed in three categories.  The highest of these was those who came from the military, sports, politics, and entertainment.  The second group included those who arose from business, adventure, and crime.  The lowest ranking group of heroes was scientists, intellectuals, artists and moralists.  Edelstein suggests that now America has no national heroes aside from the "celebrity" hero.  In order to have heroes, American society in particular must provide a national social framework in which heroic actions can occur. It must have a consensus of core values to which a hero can ascribe and model; and it must allow its heroes to be human and have flaws and still remain heroes (Edelstein).

## Teacher-Librarian Collaboration: Providing Access to Biography

Collaboration is an equal process of sharing.  In collaboration with classroom teachers, the teacher-librarian is an equal with the classroom teacher in planning instruction and in implementing it through active teaching and evaluation.  Likewise, through collaboration, the classroom teacher is an equal in determining the nature of collection development and services.  As stated, collaboration also means that the teacher-librarian can assume the role of a teacher in appropriate ways.  This might include developing lessons on how to use information resources emphasizing biography.  Collaboration might mean using biography to teach elements of literature such as character development and plot structure as well as how facts from history and current events underpin both character and plot.  Young children can see biography as story with characters who behave in logical ways.  Young children can be taught that biography is dependent on facts and logic.  At any age, youth can be taught to access biography as useful and legitimate resources by understanding how facts are used or misused, and how biography is a powerful key to understanding the workings of nations, local communities and people.

Biography offers the teacher-librarian avenues for creative teaching.  These include creative dramatics using biographical subjects and situations; music based on composers or music that has a special connection with biography, such as the Viennese waltzes; read-alouds using biographies of admired persons for history and, current events; and booktalks centering around persons in the news or ordinary people who have done extraordinary things or find themselves in extraordinary situations.

Art is another way to present biography.  Not only can biographical art be used to introduce personalities, but art also can be analyzed in terms of how it reflects society and the values found in society.  For older youth this might include considerations of how subjects through time have been selected based on such designations as class and positions in society.  Youth also can be encouraged to consider how symbols have been used and continue to be used in various time periods to emphasize the stature of persons.  This might be the display of trappings of royalty, governmental authority, work and employment, and locality.  Not to be overlooked here, is how art has always been used to evoke power and control.  Despotic regimes

as well as democratic governments have used art in this manner.  The style and subjects may differ, but the purpose is much the same, to evoke authority, trust, and loyalty.

The mass media exert an enormous role in the defining and distribution of mass media products.  In a similar way, librarians serving youth also play a role in this distribution process in that they review, order and stock many of these products for their users.  For example, magazines, television, and movies have always been popular with youth.  As we well know, they are often designed and marketed to reflect youth interests and concerns.  In doing this, they help inform and construct a framework for youth about popular values and culture that in turn becomes an important part of their lives.  Modern teacher-librarians understand the need for youth to reach out into the world, and they can be encouraged to find themselves through reading biography and observing biographical events.  The teacher-librarian is perhaps the one figure in the school who can reach out to all students regardless of assigned classroom or curriculum activities.

## Conclusion

Biography as an information resource performs many roles in society.  It is a central player in forming a sense of national character and identity.  Biography exerts a social control role in that it communicates and defines in exact ways national values, expectations and rationalizations for citizenship and citizen behavior. Through biography, cultural and national values are reinforced.

Political biographies have always played a significant role in society.  They help define and reinforce government principles whether they are democratic or totalitarian; and they can, if used in positive ways, promote social dialogue between competing and even conflicting ideologies at work in society.  In recent years, biography as an information resource has been used to help redefine the positive roles and places in society of various groups that have been previously marginalized.

The abundance of biographical communication in society and the importance of celebrities in modern popular culture have increased the power of biography to influence attitudes and behaviors of youth.  Biography now must be considered one of the major means of influencing behaviors and values among youth.  As the twentieth-first century unfolds, we must consider biography as an important information resource, and recognize its power and the pervasive place it holds in society.  I encourage you as teacher-librarians and youth workers to foster positive biography as a means that provides a gateway to learning and literacy.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# The National Reading Plan and the School Libraries Network Programme: an intensive collaboration

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*The main purpose of this paper is present how an intensive collaboration between the National Portuguese Reading Plan and the School Libraries Network Programme plays an important role in the promotion of reading literacy, as a baseline to develop all kinds of other literacy abilities, empowering the role of school libraries and the collaborative work between the school community and the school library.*

*Keywords: School libraries, National Reading Plan, literacy, reading*

School Libraries Network Programme, launched in 1996, has as a main goal, to install and develop libraries in state schools at every level, supplying its users with the necessary resources to read, access, use and produce information, regardless the format. The organization and operation of the school libraries are guided by principles, namely its development within a school community perspective, calling for articulation and networking principles like the collection that should be updated and adjusted to the students` and teachers' needs, including curricula supporting documents, literature collections, children and young readers and, to empower the collection, the practice of library interloan.

The integration of schools in the School Libraries Network Programme is made through annual applications. The schools offering the most qualified projects are selected and schools receive a technical and financial support for the acquisition of specified equipment and furniture, collections and management software.

Regarding primary schools, the municipality is involved in the installation of school libraries. They have a financial responsibility, when space intervention is necessary and the Public Library is, from the beginning, involved, at a technical level, assuring the treatment of all documents and helping schools with the different tasks, namely with the collection procedures, through the School Libraries Supporting Service, created to give continuity to a collaborative work, usually extended besides the technical work, such as activities of reading promotion, among others, are developed between these two partners.

These procedures are formalized with the signature of a Cooperation Agreement between the Ministry of Education, the Municipality and the school communities involved. These agreement also reach interloan services, allowing a real articulation and sharing of resources which is a significant added value, reinforced now by The National Reading Plan.


**Students´ percentage that affords a school library, by level of education**
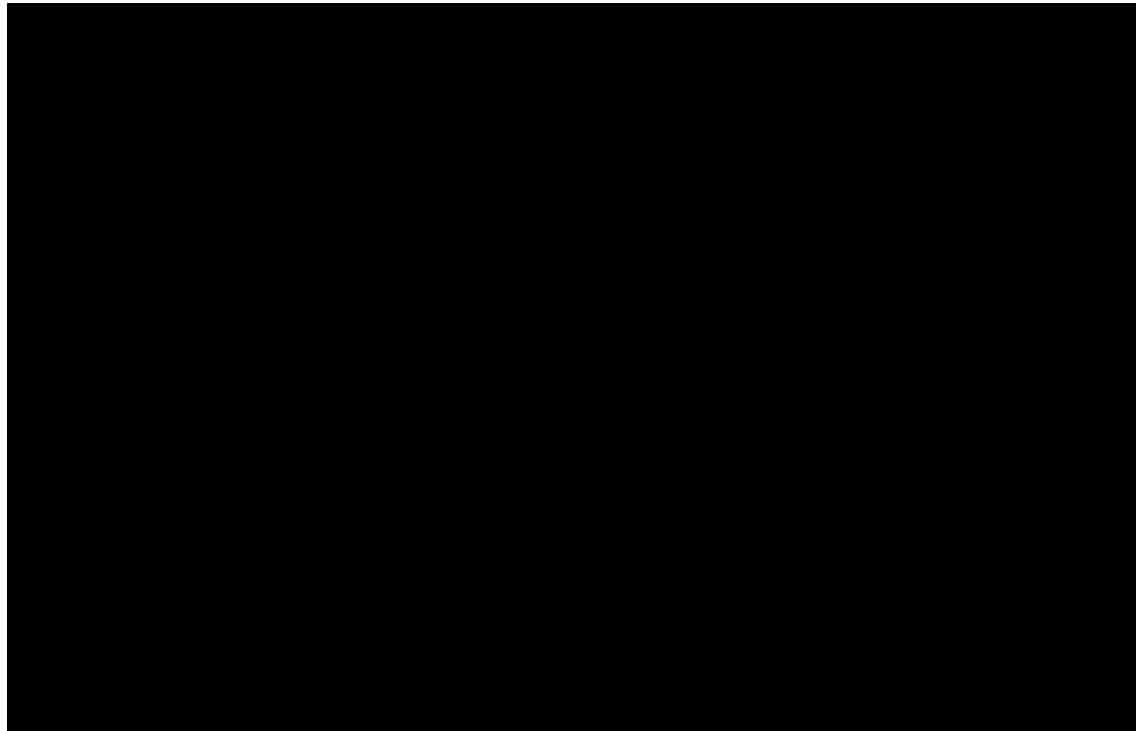
To accomplish its mains goals, School Libraries Network Programme tried to respond to training needs of the school librarian and of the team, either by the continuous teacher training or by higher education institutions. So, the human resources allocated to school libraries have been consolidated, evidenced by a growing number of teachers librarian with full time schedules and with adequate training. As a school librarian he/she plays an important role, not only in library management, and supporting curricula, but also in pedagogical and cultural promotion, namely all that concern the articulation with school communities of reading programmes, but also supporting the activities of the National Reading Plan. To support School Libraries Network Programme has a vast group of teachers with library training and experience in the management of the school libraries known as Municipal Coordinators, that provide consultancy and technical support in the field, both in library installation and, later on, in order to optimize its optimize its operation and qualified work developed by the team.

These teachers are also in charge of encouraging municipal working groups, in articulation with the Public Library, in order to develop structured projects in the promotion of reading and literacy to render people aware of the need to adopt resources sharing policies and joined organisation of activities to stimulate the creation of network information management systems. This group of teachers is another important support not only for school libraries but also to the development of national reading plan activities.

School libraries are a privileged structure in the school for the skill development, not only to access information, available locally or remotely, enabling students with critical thinking, transforming information to knowledge, supporting curricula,  but also assures an important role in readers training and in the promotion of reading habits, which is a basis tool for lifelong learning.

Our reading habits and literacy levels are, due to our recent history, - the compulsory education of nine years has only 21 years - lower than in the most of European Community Countries, not only for adult population, but also for young people, as PISA study shows. Nowadays we know that the development of reading abilities since the early childhood education is important to succeed, not only during the period of formal education, but also in all other aspects and periods of life.

Several sociological studies on reading habits state that school pupils and students no longer read for leisure, or even to satisfy individual curiosities, occupied as they are with obligatory school readings. In fact, it appears that the tendency to read mainly for utility spreads in children and young people as they grow old and more occupied with school activities. The reading of literature and fiction in general tends to be a way, not only to help developing a personal and social identity, but also to create more profound and grounded literacy capacities, namely the information literacy abilities that are so needed to go through life in today's world. We all know that the reading (and hearing) of tales since birth is fundamental to help children grow and many authors think that their power to change our perceptions, our feelings, even our lives and consequently promote knowledge is unique[1].

These beliefs and the need to fight against our literacy levels, lead us to launch the National Reading Plan, in 2006, an initiative from the government which is of the responsibility Ministry of Education together with the Ministry of Culture and the Minister of Parliamentary Affairs Office. The impact of The National Reading Plan is considered a national goal, because we believe that its impact will be much more significant. As the existing research on the Portuguese reality is only partial, the National Reading Plan also includes a set of studies which will allow for a better understanding of the reality, and also monitor and evaluate the intervention. Research will also be aimed at creating tools which may serve as a guide, to support and motivate reading promoters – teachers, educators, librarians, school librarians, mediators, parents and guardians.

An action plan was conceived, involving several institutions, schools, public libraries, social institutions, private institutions, civil associations with relevant significance to educational system, namely throughout the network between School Libraries and the National Reading Plan.

**Coordination of NRP**
- Coordination of the National Reading Plan – an Agency based at the Ministry of Education
- Strategic partner responsible for programmes in the Education area – School Library Network Office (RBE)
- Strategic partner responsible for programmes in the Culture area – Directorate-General for Books and Libraries (DGLB)
- Strategic partner responsible for initiatives in the media – Institute for the Media (ICS)
- General Coordination of Studies including Assessment of the Plan – Educational System Statistics and Assessment Office – (GEPE – Ministry of Education)

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[1] See GAARDER, Jostein (2002) – *Books for a world without readers*. Basil: 28th Conference of the IBBY.

The National Reading Plan launched measures that cover the various sectors of the population from infancy to adulthood. However, studies, as we said before, show that basic skills are either acquired at an early age, in the first stages of life, or else give rise to difficulties that progressively accumulate, multiply and are transformed into almost insurmountable obstacles. This premise makes it advisable that, in the first phase, children in pre-school education and the first six years of basic education should be chosen as the priority target audience.

In order for children and young people to be reached, people that is mainly responsible for their education must be mobilised. For this reason, childcare workers and teachers, parents and caregivers, librarians, literacy mediators and reading animators are also considered to be a highly important target audience. On other hand we though, from the beginning that school libraries must have an important role supporting National Reading Plan in schools of all levels, according to its important role and experience in readers training and in the promotion of reading habits. This importance is confirmed, as we can see, School Libraries Network Office is simultaneously an institutional coordinator member of National Reading Plan.

- So, we have Programmes to encourage and promote reading:
    - in school contexts
        - classrooms
        - school libraries
    - in the context of public libraries and other community spaces
    - in the family/leisure time context
    - in unconventional reading contexts
- Experimental projects for the promotion of reading

As we can see, the school library is a basis infrastructure, cooperating actively with teachers in order to organise and promote the activities of National Reading Plan, either in the classroom, or in the school library itself, even in other school programmes and spaces.

*Programmes in school contexts*

| Areas of Intervention | Activities | Support |
|---|---|---|
| **Preschool** (3 to 6 years old) | Daily reading in the classroom Self-expression activities with books | Recommendation of lists of books organised by levels of difficulty |
| **Schools** **1st cycle** (1$^{st}$ to 4$^{th}$ grade) | Meetings with authors Games, competitions, prizes Involvement of parents Book fairs | Guidelines for Activities (Website) |
| **Schools** **2nd cycle** (5$^{th}$ and 6$^{th}$ grade) | 1 teaching period per week set aside for reading books Meetings with authors Games, competitions, prizes Book fairs | Training |

| Areas of Intervention | Activities | Support |
|---|---|---|
| **3rd Cycle/** (7th to 9th grade) **Secondary School** (10th to 12th grade) | Reading Prizes with the support of the media Teaching time dedicated to reading activities Classroom use of the resources available at School Libraries Peer reading clubs Book fairs, competitions, games | Reading animators Home loan service centred on the School Library |
| **Leisure Time Students 3rd Cycle / Secondary Education** | Teaching time dedicated to reading activities Readers' communities Support for blogs and chat-rooms on books, newspapers and magazines about reading | Support made available at the School Library |

One example of the joined work of National Reading Plan and School Libraries Network Programme together with all the schools and public libraries is a National Reading Contest. Considering that the NRP is for all citizens even if the first six schooling years are priorities, we also launch each year some activities for the oldest students and the National Reading Contest is an example, because involves the lower and high secondary students. It is an annual initiative proposed by the National Reading Plan witch has three different levels of participation in three different phases: first phase is under the responsibility of teachers and happens at school level in Portugal; teachers should organize all the reading activities and is when the school libraries have an important role because they provide the resources and their knowledge supporting teachers and students along all the contest and also because they usually are the ones to link the school to the second phase, which take place in a public library on the district. At this point of the contest the responsibility in organizing the selection of books; questions and activities lies on the public library. Finally on the third and last phase NRP has a strong partnership with the national TV network that promotes the national final which is broadcasted on primetime on television.

Along all the scholar year the National Reading Contest involves teachers, students and their families but also the local authorities and all the Portuguese society around reading and the importance and benefit of it.

To support all the participants the National Reading Plan and School Libraries Network Office provide counselling and technical support.

Several activities are developed between the two partners in this first year of implementation showing how those activities were more successful due to this partnerships.

We could observe different inputs:

- a major sensibility to reading issues,
- a greater interaction between school community and school library,
- reading is a daily routine  either in formal or informal schooling activities,
- more coherent and consistent  reading promotion activities,
- the parents and local community, including local authorities are much more involved.

We believe that in sharing our experience, for sure, we will benefit from other contributions in the field.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Researchers' Workshop: A New Approach for Literacy Learning in School Libraries

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*This paper presents a model of literacy learning and research in school libraries that is inclusive and responsive to the needs of diverse learners.  It draws on four educational theoretical frameworks: sociocultural theory, the pedagogy of care, readers' workshop, and critical pedagogy.  This practical model consists of four important phases.  They include social interaction, the building and maintenance of caring relationships with students, guided assistance, and students' right to return for assistance. The paper will discuss the practical applications of the model and how it contributed to higher levels of literacy achievement for a variety of students.*

*School libraries, critical literacy, research approach*

## Introduction

Working with adolescent learners was one of the joys of teaching and learning in secondary school libraries.  For me, a substantial part of that joy came from the approach I used with students to co-conduct research and inquiry into topics that were of interest to them. Inspired by the pedagogy of Nancie Atwell (1987; 1998), I used a workshop approach to searching and inquiry and called *it researchers' workshop*.   Similar to Atwell's  readers' and writers' workshops that use a combination of whole class, minilessons, small group, and individual instruction over a continuous period of time, *researchers' workshop* explicitly incorporates the Vygotskian (1978) socio-cultural concepts of social interaction, shared joint-learning, guided apprenticeship, and a gradual release of ownership of the learning activity. Along with the preceding, there are two other important features of researchers' *workshop*: it is firmly grounded in Noddings (1996; 1999; 2005 relational pedagogy of caring and in Freirean (1970) critical theory.

In what follows I will tell the story of *researchers' workshop* as I lived it.  In telling the story, I describe the genesis and components of the *researchers' workshop.*  My purpose in sharing the story is to inform and inspire teacher-librarians to seek alternative directions in the practice of school librarianship.

## The genesis of researchers' workshop

*Researchers' workshop* grew out of my pedagogical restlessness, growing critical consciousness, and an ethical commitment to interact more fully with marginalized, struggling readers, writers, and researchers.  The marginalized students were often from cultural, linguistic, racial, and economically disadvantaged groups and I wanted to have greater connectedness with them in the school library. The ideas of Nancie Atwell (1987) had informed my pedagogical

practices when I was a full-time classroom teacher and the publication of her new book in 1998 led me to examine how I could incorporate workshop approaches to research and inquiry in the school library. Soon after I began experimenting with *researchers' workshop*, I began to link it to the Vygotskian ideas that I was learning about in my graduate studies. When seen from a Vygotskian viewpoint, the school library is a sociocultural site where particular forms of social practices such as locating, assessing, reading, and using, and critiquing information takes place. Within a Vygotskian framework such learning is conceived as a shared-joint process between adults and children interacting in a responsive social context. Although I believed in, and emphasized the social interactional component of my work with students, planned guided lessons, and provided guided apprenticeship in research, I knew I had to go further to develop even greater connectedness with students.

I also knew that a more critical perspective was needed since it was clear to me that the school library was not a neutral, depoliticized, sociocultural site that fostered neutral (natural) cultural and social practices. I turned to critical pedagogy because it is

> fundamentally committed to the development and evolvement of a culture of schooling that supports the empowerment of culturally marginalized and economically disenfranchised students. By so doing, this pedagogical perspective seeks to help transform those classroom structures and practices that perpetuate undemocratic life (Darder, Baltodano & Torres, 2003).

As a product of the dominant society, I believe that the secondary school library tends to privilege the ways of valuing, knowing, thinking, and doing of mainstream students. The school library's proclivity toward maintenance of the status quo troubled me and I wanted to trouble and disrupt it.

The sociocultural, sociohistorical, political site in which I work is one characterized by over four hundred of years of colonial oppression (multiple forms of domination and subordination) whose impact on schooling still resonates strongly today among the Onkwehonwe—original peoples— and all those who call Saskatchewan home (Alfred, 2005). It is clear to me that resistance to colonial oppression started as soon as the colonizers began to show their true intentions and used their cunning, stronger military and economic power to take over the lands and suppress the Onkwehonwe. This resistance continues today in society and unavoidably in schools. Therefore, the critical, conscious, and ethical practice of school librarianship in such a context is not neutral.

"Critical education contends that, contrary to the traditional view, schools actually work against the class interests of those students who are most politically and economically vulnerable in society" (Darder, Baltodano & Torres, 2003). Critical education—critical school librarianship acknowledges the impact of the legacies of colonialism (e.g., poverty due to socio-economic exclusion, discrimination, and educational disadvantage) and seeks to disrupt it. For me, being critical in this context meant that my practice of school librarianship had to be oriented toward developing caring, respectful, and "dialogic" relationships with all students—especially those from subordinated groups—so as to work alongside them to create a more ethical, robust and socially just society.

In addition, I opted for change in my pedagogical practices because I had reached the point in my personal and professional life where I wanted to be more explicit and activist in my desire to transform the world in order to make it more equitable and just. Also fanning the winds of change for me was my growing dissatisfaction with what I perceived to be the skewed Discourse (Gee, 1996)—the technical rationalist language of school librarianship (Doherty, 2005/2006).

Though I was a major beneficiary of the profession's fixation on "information," "information literacy skills," and "technology" (American Association of School Librarians (AASL) & Association for Educational Communications and Technology (AECT), 1998; Bleakley & Carrigan, 1994; Eisenberg & Berkowitz, 1990; Kuhlthau, 1995) it troubled me. It troubled me because I did not see an explicit, commensurate or equal professional focus on the relational—the caring relationship that must be developed and sustained between teacher-librarians and students. I saw a preoccupation with methods, a ("methods fetish") that was not accompanied by pedagogical structures that spoke to the day-to-day reality, struggles, concerns, and dreams of subordinated students Bartolomé (2003 p. 410).

I did not see sufficient focus on the role of teacher-librarians' in critically addressing the needs of the increasing numbers of racial, cultural, economically disadvantaged, and linguistic minority students who were not doing well in school literacy and other areas critical to success in schools and life. My desire to bolster the theoretical and practical foundations of *researchers' workshop* in addition to my disaffection with the functionalist and technocratic orientation of the profession led to the (un) covering of the work of Atwell (1987; 1998), Noddings (1999; 2005) and Freire (1970) in order to overtly bring a socially conscious and greater moral dimension to my work in *researchers' workshop*. In the final analysis *researchers' workshop* grew out of my growing humanistic/humanizing educational philosophy.
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## Researchers' workshop

According to the Canadian Oxford Dictionary, a workshop is "a meeting for concerted discussion and practical work on a particular subject, in which a group of people share their knowledge and experience" (2004, p. 1795). My conception of view (1998) that a "workshop is student-centered in the sense that individuals' rigorous pursuit of their ideas is the primary content of the course." (p. 71). Similar to Atwell's workshops, *researchers' workshop* places strong emphasis on knowledge acquisition and construction through use of a variety of sociocultural tools which includes (but is not limited to) reading and writing, and extends such emphasis to researching (e.g., planning, retrieving, processing, creating, sharing, evaluating, and reflecting on the process (Learning Resource Council & Alberta Teachers Association, 2004)). In addition, I believed it was imperative to add a social justice component to and taking social action *researchers' workshop*.

Therefore, in *researchers' workshop*, the teacher-librarian pays particular attention to reading and writing school English in the various content areas and to helping students develop and strengthen those practices, as he/she teaches and guides students through research processes. The starting point for all transactions in *researchers' workshop* is listening to students, understanding their historical realities and recognizing and valuing the sociocultural resources and literacies they bring to research and inquiry.

I worked hard to make *researchers' workshop* an embodied sociocultural experience that valued the unique identities of students—their multiple literacies—and thus went far beyond pen, paper, and PowerPoint presentations. Like Atwell, I have journeyed to the realization that workshop approaches best accommodate the needs of adolescents, invite their independence, challenge them to grow," and promote deep understanding of the interrelatedness and complexities of the topics they select for inquiry and for action (Atwell, 1987; 1998).

## The Structure/Framework

*Researchers' workshop* is constructed on the premise that learning takes time and that literacy learning through research and inquiry requires sustained contact with students. Fortunately, I began my journey with *researchers' workshop* in a school district in which block scheduling, in one hour periods, is the status quo for all secondary schools.

Block scheduling provided me with the time I needed to work holistically with students on research and inquiry. Along with that, much of the success I had in using a workshop approach to do research and inquiry in school libraries was dependent on the enormous assistance I received from the library assistants with whom I worked.

Within the framework of *researchers' workshop*, I typically invited classroom teachers to sign up for an hour per day over a five-day period. Although, we did not always use the five hours allocated for research, I blocked off five days for the teachers with whom I collaborated on research projects to ensure that there would be enough time to work with students in meaningful ways. *Researchers' workshops* operate on the principle that we cannot overtly teach all that we know about research or inquiry; some of the knowledge is acquired through enculturation— immersion in research activities over extended periods of time with more knowledgeable others in school libraries and elsewhere (Gee, 1996, Vygotsky, 1978).

In *researchers' workshop*, the school library is a jointly shared "territory" (Atwell, 1998) where the teacher-librarian and students work together closely and collaboratively along-side each other as they develop social and cultural practices that involves, decoding, inquiring, and encoding a variety of texts. Researchers' workshop is a way of working with students, a way of doing research that eschews 'quick fixes' and 'on the run' approaches; it is undergirded by the heart-felt conviction that students matter and that research is a messy, time-consuming, at times exhilarating, and at other times anxiety-producing process.

## Literacy in researchers' workshop

In *researchers' workshop*, I work with the sociocultural understanding that the actions we take when we engage in research and inquiry (e. g., talking, reading, writing, locating, retrieving, analyzing, and reflecting on text types and information) build on and extend social practices and therefore see literacy as plural—literacies—rather than as singular—literacy. This understanding is informed by Gee's (1996) view that literacy is related to primary and secondary Discourses. Gee states that,

A *Discourse* is a socially accepted association among ways of using language, other symbolic expressions, and 'artifacts', of thinking, feeling, believing, valuing, and acting that can be used to identify oneself as a member of a socially meaningful group or 'social network', or to signal (that one is playing) a socially meaningful 'role' (p. 131).

Gee argues that everyone has primary a Discourse and that it serves as a foundation for future acquisition and learning of secondary Discourses (p.141). Furthermore, Gee points out that "any socially useful definition of literacy must be couched in terms of these notions of primary and secondary Discourses" (p. 143). Such a view of literacy leads Gee to point out that "literacy is always plural: literacies (there are many secondary Discourses, and we all have some and fail to have others)." This sociocultural view suggests that there are many culturally informed ways of speaking, reading, writing, analyzing, reflecting, and responding to texts. Thus, in the rich, heterogeneous school library contexts, in which many of us work, it is important to acknowledge that learners are diverse, come from different Discourse communities and have different forms of literacies that may be different from traditional school literacy.

In *researchers' workshop*, I recognize that students from "marginal social groups often struggle to get a handle on the culture" of school libraries and therefore I act in overt ways (e.g., caring, offering more time and guided assistance through talk, modeling, and demonstration) to help them navigate and become more fluent in those discourses (Gee, 1996, Lankshear & Knobel, 2007). *Researchers' workshop* is an approach that provides students extended opportunities to be immersed in and acquire school languages/discourses as they engage in research and inquiry.

## Connectedness

I believe that increasingly, when it comes to research and other forms of engagement in school libraries, students are asking, pushing on the question of, "where am I in this story, in this picture," and this, as Hunsberger (2007) points out, is a call for "connectedness" (p. 420). The connectedness of which Hunsberger speaks is about broadening our definition of literacy so that it is sociocritical, in order to achieve "a clear, deliberate, and intentional focus upon "connectedness" between the reader and the text" so that the school literacy experiences of students are more directly linked to their cultural, social, and material realities (p. 421).

Connectedness is important for the students with whom I work because as Hunsberger points out, "the poverty that encircles [many of] their lives creates a constant barrage of experiences that we seldom discuss or read about in the texts we choose for our literacy instruction" (p. 421). Tatum (2005) expresses a similar idea when he describes the kind of literacy instruction that made a difference in his life. He states,

My teachers understood that my life experiences and how I responded to these experiences mattered. They understood that the texts they placed before me had to address some of the psychological and emotional scarring that results from the day-to-day experiences of being black, male, and poor in America. My teachers wanted to help me develop an identity that would be useful outside the walls of my school (p. 25).

In school libraries, *Researchers' workshop* is a pedagogical approach that I reached for in order to connect readers to texts and to critically connect research to the lived lives of students as a way of offering possibilities for liberation (Hunsberger, 2007; Freire, 1970). The primary

concern of *researchers' workshop* is not strategy and skill instruction (Tatum, 2005). The research that we do in *researchers' workshop* is explicitly linked to the development of critical consciousness, where students, through the research topics and projects they pursue, can "critically recognize" the causes of their oppression (e.g., poverty and the socio-economic structures that give rise to it, racism, bullying, the absence of language classes for English Language learners, eating disorders, self-cutting, sexual harassment, homophobia, hyper-masculinity, exclusions, suspensions, and expulsions from school etc.). Thus, critical consciousness is conducting research in such a way that we learn to "perceive social, political, and economic contradictions, and to take action against the oppressive elements of reality" (Freire, 1970, 19).

## A Pedagogy of care

The environment that best supports *researchers' workshop* is a school library or media center that is a place of care, love, and trust. Noddings (2005) artfully articulated the indispensable, fundamental role of care in education. She explains that

> a *caring relation* is, in its most basic form, a connection or encounter between two human beings—a carer and a recipient of care, or cared-for. In order for the relation to be properly called caring, both parties must contribute to it in characteristic ways. A failure on the part of either carer or cared-for blocks completion of caring and, although there may still be a relation—that is, an encounter or connection in which each party feels something toward the other—it is not a *caring* relation (p. 15).

Noddings' maintains that caring is not an individual virtue or attribute (though it requires individuals to have the virtues and capacities to care) since caring "recognizes the part played by the cared-for" (p. 21). It is an ethic of relation. In writing about caring relations and encounters in education, Noddings (2005) points out that "No matter how hard teachers try to care, if the caring is not received by students, the claim "they don't care" has validity" (p. 15).

Thus, "it is not enough to hear the teacher's claim to care," it must be apparent to and lived by students—they must perceive themselves to be cared for by the teacher. Caring is a way of being in relation, not a set of specific behaviors" (Noddings, 2005, p. 17). My work with students in *researchers' workshop* is guided foremost by the value I place on guiding and teaching in a relational way (Noddings, 2005). I want adolescent researchers to know that I care about them, that I know that they care about the topics they select for inquiry, and that I am available to tease out issues with them as they proceed along the meandering, messy, crooked, frustrating, and yes, exhilarating path of research.

When high school students see, wave at, run, greet, and oftentimes hug me in hallways, in shopping malls, at concerts, in record stores, and/or at community gatherings, I do not believe it is primarily because I have taught them the skills or "standards" associated with information literacy (AASL & AECT, 1998; Asselin, Branch & Oberg, 2003). Rather, I am convinced that the students' responsiveness toward me is ignited by the care I offered to them, and the responsive relationships I developed with them over time, through *researchers' workshop*, in the school library. As Noddings (2005) suggests, "…subject matter cannot carry itself"; much, much more is needed.

For me, the current that carries subject matter (e.g., the contextually-based teaching of information literacy skills for research, the exploration of ideology in an author's work, the examination of race, class and gender in texts, the unpacking of the concept of censorship) in the school library is the sustained care that is offered to students in each exchange and each transaction. Like Noddings, (2005) I believe that the "*living other is more important than any theory*" and articulated that belief in a particular way. *Researchers' workshop* as I practiced it provided the framework for enacting an ethic and pedagogy of care (Noddings, 2005) in a deep and rich way. Thus, the most important aspect of conducting meaningful inquiry and/or successful research in *researchers' workshop* is the caring relationship between the student and the teacher-librarian.

## A critical approach to caring and inquiry

While the model of *researchers' workshop* that is introduced and developed here draws heavily on Atwell's (1987, 1998) readers and writers workshops, Vygotskian concepts of interaction and guided assistance, Noddings' "ethic of care" and relational pedagogy, it seeks to go much further. My vision of *researchers' workshop* incorporates the Freirean (1970) radical pedagogy of humanization aimed at engendering democratic, progressive social transformation for social justice and freedom. *Researchers' workshop* is a way for me and for other progressive teacher-librarians to enact "critical intervention" through, "praxis"—"the action and reflection of men upon their world in order to transform it" (Freire, 1970, p.66). *Researchers' workshop* provides for a deeper, richer approach to research/inquiry and its transformative possibilities. Through *researchers' workshop* we can "practice *co-intentional* education" wherein, according to Freire (1970),

> [t]eachers and students, co-intent on reality, and thereby, are both Subjects, not only in the task of unveiling that reality, and thereby coming to know it critically, but in the task of re-creating that knowledge. As they attain this knowledge of reality through common reflection and action, they discover themselves as its permanent re-creators" (p. 56).

In the school library, *researchers' workshop* is "dialogic," co-intentional, "problem-posing" education that is the anti-thesis of what Freire describes as "banking education" in which the "the students are the depositories and the teacher is the depositor." In the alienating, undemocratic and dis-empowering model of "banking" education, "the scope of action allowed to the students extends only as far as receiving, filing, and storing deposits" (p. 58). Researchers' workshop eschews the practice of "banking education"; it is concerned with inquiry and as Freire suggests,

> "…apart from inquiry, apart from the praxis, men cannot be truly human. Knowledge emerges only through invention and re-invention, through the restless, impatient, continuing, hopeful inquiry men purse in the world, with the world, and with each other" (p. 58).

Guided by the belief that all students bring a rich mixture of history, knowledge, experiences, skills, interests, queries, and dreams that are indispensable to the "critical inquiry of reality" (the area of greatest interest to many secondary students), teacher-librarians operating in the framework of *researchers' workshop* need to see themselves and their students as teachers

and as students (Freire, 1970) simultaneously. In *researchers' workshop*, students are searchers whose "ontological vocation is humanization" (p. 62). Students' requests for books, journals, assistance with online databases, and the assistance of a co-researcher/co-inquirer are first steps that can be indicative of their desire and drive to know more, for richer understanding, and to go further along the path of their full humanization. *Researcher's workshop* allows the teacher-librarian to enter a lateral "humanist" and transformative partnership with students and in so doing propels them towards the goal off full humanization. I believe that the possibilities for the re-creation of reality, social transformation, and humanization are enhanced through *researchers' workshop*.

## A culture of collaboration

The relational pedagogy that underpins *researchers' workshop* is essential to building a culture of collaboration with students and teachers. *Researchers' workshop* requires collaboration. In her book on *Collaboration and the school library media specialist*, Doll (2005) explains that "collaboration is the ultimate level of involvement" between a school library media specialist [teacher-librarian] and classroom teachers as they work together to plan and evaluate "lessons, units, and the curriculum itself" (p. 8).

## Access to students

My experience tells me that it is vital for a teacher-librarian to build positive and caring collaborative relationships with teachers in order to have the kind of sustained access to students that is needed for *researchers' workshop*. By having coherent and consistent access to students—that is, meaningful periods of time in which to engage in quality research—the teacher-librarian is able to actualize care in dialogic and critical ways (Freire, 1970).

## Search space

Along with the need to have sustained and meaningful access to students over an extended period of time for the purposes of conducting research inquiry, an important feature of a *researchers' workshop* that is specifically oriented towards adolescents, is the need for, and, use of what I call a *search space*. *Search space* is a theoretical construct that refers to carving out, setting aside of a concrete physical space wherein an individual student (or group of students) can render explicit, through dialogue (or other means) his thinking and reflection on the topic he wishes to excavate, understand and interrogate with the teacher-librarian.

Also, I theorized *search space*, as a psycho-social construct wherein teacher-librarians are intentional in creating mental space and giving meaningful attention to the needs of adolescents as embodied, complex beings who are shaped by culture, gender, history, race, sexuality, emotionality, and economics.

It is not to be wondered at, that a site such as *search space* is necessary; research is often an iterative, complex, idiosyncratic, unwieldy process that needs patient transactions and distillations. Meaningful inquiry with adolescent students cannot be conducted 'on the run;' it cannot be done at the library desk when there are groups of students lined up, waiting to be served. In order to actively demonstrate to students that they are valuable and cared for, and to simultaneously respond to the anxiety-driven vulnerability that young researchers usually exhibit

at the beginning of a "dialogic" research journey, it is important to have a physical space that allows the student and the teacher-librarian to have caring and critical transactions about research.  The psycho-social aspect of s*earch space* permits the student and the teacher-librarian to set out on their journey by clearing a cognitive space, a mental or head space that allows thinking and reflection on a topic of research or inquiry.

It is in *search space* that developing or novice researchers formulate their questions, choose words, and take risks in exploring topics before they are shared publicly.  For some students this may be short period and for others a longer period, but whatever the individual need of the student, it can be accommodated by *researchers' workshop.*  By its very design, researcher's workshop is structured to enable teacher-librarians to transact in caring and dialogic ways with students in light of their individual interest, needs, and competencies, linguistic, social, and cultural situations.

## Search talk

*Search talk* is "dialogic" in the Freirean sense of the word and is therefore egalitarian in nature (Bartlett, 2005); teacher-librarian and student are learners together. The *search talk* of *researchers' workshop* is not authoritarian.  Similar to reading and writing workshops *researchers' workshop* uses a conference approach.  *Search talk* is talk about research, talk about the particular discourses of research, talk about the subject of inquiry, talk about what students would like to know, talk about why a particular topic was chosen by the student and how it connects to their past, present and future imagined lives.  *Search talk* occurs before, during, and after a research project.  This purposeful talk not only helps to clarify the student's as well as the teachers' thinking, it helps to foster oracy—oral language development (especially for English Language Learners and other minority language students).  *Search talk* builds and extends the vocabularies of students and where possible and practical (this is often), we use dictionaries thesauri, and glossaries as much as possible to support our talk.

The thread that knits the fabric of *search talk* involves more than Noddings' (2005) concept of caring, it rests on the teacher librarian's  articulation of the Freirean concept of humanization and the necessary examination of social realities in critical ways in order to name them, and change them.  *Search talk* is based on conversations not lectures, problem-posing, questioning, experimenting with and testing words and different search strategies and techniques. *Search talk* is not a quick answer to a reference question and the need to support the information literacy development of students; it is much more.  *Search talk* is about responding to students in caring and critical ways that involve thought, conversation, and action to make the world a better place.

## The Provision of Guided Assistance

The provision of guided assistance in *researchers' workshop* is rooted in Vygotsky's (1978) sociocultural, sociohistorical theory that asserts that "*human learning presupposes a specific social nature…*" and that children internalize cultural forms of behaviour and solve problems in conjunction with more knowledgeable others (adults and peers).  In *researchers' workshop*, guided assistance is explicitly offered to students from the beginning to the end point

of their research and the door is never closed so that students can accelerate their participation and learning in a caring and supportive way.

The humanist, equity agenda that I used in *researchers' workshop* made me mindful of the differences that exist among students and led me to take what Gutiérrez and Rogoff (2003) describe as a "cultural-historical approach" to research where learning is conceived as a "process occurring within ongoing activity, and not divided into separate characteristics of individuals and contexts" (p. 20). The cultural-historical approach involved "knowing about the individual histories" and some "valued cultural practices" of the groups the students belong to so that I could orient the instruction and guidance I provided to meet the particular needs of each student (Gutiérrez & Rogoff, 2003).

## Students' right of return

The right of return refers to students' right to seek guided assistance from the teacher-librarian as part of an open-ended process of caring, valuing, thinking, and acting as cultural-historical actors in *researchers' workshop*. In terms of what transpired on a day to day basis in the school library, the right of return spoke of my philosophy and fervently held belief about my availability to students. It helped me to liberate students from being hesitant and from expressing apologies for returning for assistance, for needing more of my time, for getting additional support. The right of return created space for welcoming and working with vulnerable students and could be operationalized before, during, and/or at the formal end of the school day.

The open-endedness of *researchers' workshop* is rooted in the Freirean (1970) idea that the world is not yet fully made. By emphasizing the right of return, I sought to illustrate to students that the world is in a continuous process of being made and that human beings still needed solutions to the problems of social injustice and this exhorts and allows each of us—students and teachers alike—to be social dreamers and actors in order to create a better world.. With this vision, the door on research is never fully closed, understandings are never complete, knowledge and wisdom are not exhaustible; the great books/texts have not yet all been created, and the greatest individual and collective social acts of compassion and liberation from oppression have yet to be realized.

## Conclusion

My story of *researchers' workshop* is one that documents my evolution as I grappled for more pedagogically responsive and critical ways of working with students in school libraries. The process has been not been a linear or uncomplicated one; it has been fraught with tensions, setbacks, anxieties, questions, and challenges from students, peers, and administrators. Nonetheless, through *researchers' workshop*, I found an approach that allowed me to provide the caring, guided assistance my students needed, to build on their repertoires of practice in advancing literacy through research, and to collaborate more fully and meaningfully with teaching colleagues and support staff. In addition, *researchers' workshop* has made it possible for me to co-conduct research with students that focus on social and political issues that are of importance to them, their communities, and the world. It is through *researchers' workshop* that

the students and I have come to frame curriculum as a "metaphor for the lives we want to live and the people we want to be" (Boomer & Boomer, 1999).

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## *Biographical Note*

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## Statement of Originality

I certify that this paper is based on my original research and was conceived and written by me and has not been published elsewhere.  All information and ideas from others is referenced.

When this is done the books will appear on your facebook profile as seen in Figure 5 below.

*Figure 5: Books on Shelf*



The selection of books is extremely important because readers need to love and enjoy the books they are reading.  Van Dyke (2005) gave some suggestion on selection books for readers. These are:
1.  involve students in the selection process;
2.  consider the reading levels of all the readers in the community
3.  look for tie-in to your community
4.  Look for "discussability" – the plot leads to discussion of ideas and values

*Beginning the Programme*

It is suggested by Van Dyke (2005) that the "Community of Readers" Programme should begin with an interesting launch which involves the entire school community. This public commencement can help to motivate the readers and build the interest of non-members. In this commencement programme the librarians need to work with the school administrators to make

this a special day. A motivational speaker can be used at the launch of the programme so that they can motivate and challenge group members to remain in the programme. Group members can be given an opportunity to state their reasons for joining the Literature Circle and encourage other students to join. The first set of books to be read can be attractively displayed and if possible have the authors talk about their book.

*The value of the programme*

According to Schlick (1999), literature circles provide a way for students to engage in critical thinking and reflection as they read, discuss, and respond to books.  Schlick further added that collaboration is the heart of this approach and that student reshape and add onto their understanding as they construct meaning with other readers. Schlick also explains that literature circles guide students to deeper understanding of what they read through structured discussion and extended written and artistic response.

Student who are involved in this program improve their ability to negotiate the opportunities and risk of the Internet Age (Educause 2006). This means that readers' information literacy skills are being developed as they participate in learning how to use technology in creative ways. This article also mentioned that Facebook has the potential to teach students about appropriate citizenship in the online world. Like many emerging Internet applications, Facebook also emphasizes the importance of creating content over simply consuming it (Educause 2006). Using Facebook with the literature circle will allow students to express themselves in written form.

The configuration of Facebook is able to motivate a community of readers as it provides interaction and gives individuals equal access to discussion which is very useful in providing scaffolding for anyone who does not possess a high linguistic ability. As users read and post their responses to the literature, they will improve their literacy skills. According to Collins (1993), critical thinking is encouraged when the reader is actively and constructively engaged in the process of reading especially when it is done  personally and collaboratively as students who read, write, discuss, and interact with a variety of learning materials in a variety of ways are more likely to become critical thinkers.

*How these roles can help improve users' literacy skills*

The roles indicated are important literacy skills that students are required to master in any educational institution. Creating a scholarly environment where readers can perform these roles will help them to master specific literacy skills in a timely manner. Because they are concentrating on one role at a time and collaborating with others while doing so, it is likely that the skills they learn will be fully grasped. By the end of the programme all readers should possess the literacy skills that were emphasized.

Learning in this environment helps students to contribute information while it supports collaborative and reflective learning. Through constant exposure students are able to build and manage their network (Aberdour 2007).

*Reaching students with Facebook*

It is easy to use Facebook to reach students because of its popularity. Facebook.com reported that in April 2008, there were 70 million active users. According to Hagel and Brown(2008) many of these are students and recent graduates. Since so many students are interacting with their peers using this network it would be an excellent idea for librarians to capitalize on using it to enhance learning and literacy. An article in Educause Learning Initiative (2006) stated that:

> any technology that is able to captivate so many student
> for so much time not only carries implications for
> how those students view the world but also offers an
> opportunity for educators to understand the elements
> of social networking that students find so compelling
> and to incorporate these elements into teaching and learning (p. 2).

The article further mentioned that a Facebook profile is an excellent mechanism for communicating with our students because it allows librarians to go where students already are; it is an environment that students are already comfortable with. Librarians joining and participating in Facebook have the power to be just as significant to today's students as meeting them for coffee or lunch was to previous generations. Students are already actively using these messaging systems, perhaps even more frequently than they use traditional email or instant messaging; therefore, their presence in the social network environment makes library services and librarian assistance extremely convenient. In addition, Farkas (2007) in her article about Facebook perceives these sites as another way to reach out to patrons. Farkas (2007) supported this idea when she stated that "It makes sense to look at what social networking sites our patrons frequent and how we can provide services there". By doing this librarians will be involving their users in learning through social networks which facilitate social learning. Mack et al (2007) stated that librarians at Penn State have found that since they have created and promoted their own Facebook profiles during instruction sessions and reference interactions, they have seen increased research assistance requests in not only their Facebook message boxes, but also in their institutional email and even in person (p.1).

## *Evaluation*

Formative as well as summative evaluation needs to be done in relation to the objectives set at the beginning of the programme. The formative evaluation will ensure that objectives of the Literature Circle are being met and to determine if changes are to be made to further improve the intended outcomes. Summative evaluation which is carried out at the end of the programme is extremely necessary. This will let the librarian know if the objectives of the programmes were met and if not what changes needs to be done if the programme is to continue for another period of time. The librarian will evaluate the readers' performance to see how well each individual and groups did on the learning tasks. The result of the evaluation will help to determine what adjustments are needed to achieve the objectives should the programme be continued (Bertner and Shelton 2006).

*Conclusion*

It can be concluded that Facebook is a popular social utility that is widely used among students in high schools. Some librarians have seen the need to use this utility as an educational tool because it facilitates social learning. They believe in the philosophy of using what students are interested in to teach them. As such Facebook can be used to develop students' literacy skills in an environment that promotes interaction, and individual accountability. The result of this strategy is that scaffolding is offered for students who are not linguistically strong. The librarian can do formative evaluation to ensure that the objectives are met throughout the programme. In addition to this, summative evaluation is necessary to make adjustments should the librarian wish to restart programme with another group or the same group. Of importance, school libraries need to remain on the cutting-edge so that they will remain the hub of their institution at all times.

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*Biographical notes*

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and

ideas from others is referenced. The photographs that appear on the Facebook profile on pages 7 and 12 are that of myself. I have no objection if they should be published within this article.

**IASL Archives Collection – Developments & Progress Report 2008.08.02**

1. ***Introduction:***
  The Archives for IASL is officially stored at Western Michigan University Archives & Regional History Collection.   This arrangement was made when Dr. Jean E. Lowrie was Executive Secretary for the Association.
  A formal Deposit Agreement Letter was prepared and signed 26 August 1997, with Sue Husband, Curator, Regional History Collections and Dr. Ken Haycock, Executive Secretary on behalf of IASL.
  Materials have been deposited from time to time by Dr. Jean E. Lowrie, Donald Adcock and Gerald R. Brown.
  It is the responsibility of IASL to deposit the items which it feels may have value in recording the history and activities of the organization.  WMU maintains the collection, and provides 'finding aids' in the appropriate archival manner.  WMU also provides assistance to researchers who wish to access the collection.

***2. Scope of Collection:***
2.1.  The personal papers of Dr. Lowrie, Executive Secretary 1977-1995,  have been deposited at WMU.  They are in two parts: her work with IASL, and her work in the WMU School of Librarianship, among other personal matters.

2.2 Gerald R. Brown has made four depositions of files which contain copies of listserv messages, websites pages,  printed (snail mail) correspondence, draft and final documents, pictures, biographical statements, reports from the various committees and the annual meeting  documentation.  Copies of many printed documents, including Proceedings, News letters and Journals were included as separate publications. Downloads from many websites referenced in the various listserv entries were also included.  This current collection covers the period from 1971-2007.  All of these materials have been indexed as shown below.
  **Volume 1:1989-1999,** included 26 binders, and 3690 entries sortable by (1) author/initiator of the document, (2) date (3) country (4) title/topic/subject.  A digital file has been maintained
  **Volume 2**:1**971-2000, comprises** 57 binders and close to 8987 entries organized in the same configuration.  The digital file for this collection is missing.  However a printed copy is available.
  **Volume 3.1 & 3.2 : 2000-2007.**  There are also some retrospective files that have surfaced in the interval and are now included here also.  In total, there are 59 binders, and 9555 entries of data. A digital file is being maintained.  The printed versions of these files 3.1 (Author) & 3.2 (Subject) each run to 414 pages.
  In each of the above compilations there are also a number of separately bound volumes the contents of which were included in the indexing process.
  **Volume 4** in CD format includes all the indexing from the previous three volumes, with supplementary material for additional items which have been traced.

### *3. Finding Aids*
3.1  The curatorial staff at WMU have produced a series of 'finding aids' for much of the material accounted for in Vol. 1 above.  These aids are in the accepted and traditional archival management format.

3.2  Other Indexing
      For all of the above volumes, the original material was arranged in chronological order.   Information in these 142 binders / files was accessible using the **indexing filing date of initiation** of the document or event.
      A detailed index has been produced by name of author/ creator/ initiator, date, country location, and title or subject of the communications.   A digital file has been maintained.  Printed author/creator/initiator file have been produced.  A similar subject descriptors file was also printed.
      **Volume 4: 1971-2007,** contains the most recent record of all traced records of the association to 31 December 2007.  CD copies of this file will be available for broad distribution at or following the Berkeley conference in 2008.

### *4.  Continuing Development / Issues  / Concerns*
      For some unknown reason, the depository process from the Association to the WMU archives on a continuing basis has been interrupted over the years.

      After working with the WMU staff on site in January 2008, it became apparent that the deposition of materials on a regular and on-going basis was not happening.  For example, there is no running deposit of Proceedings from the beginning of the organization is incomplete.
      As a step to address some of the missing issues, I have undertaken the following:
4.1  **PROCEEDINGS:**
      In February 2008,  Peter Genco, at his home in Erie, PA, reviewed the quantity of left over Proceedings issues from previous conferences.
      One (1) copy of all previous available issues was delivered to WMU, which now registers a printed and bound collection for the following years:
                                       1978, 1979,
     ,     , 1982,    , 1984, 1985, 1986, 1987, 1988, 1989,
     ,     , 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999,
   2000, 2001, 2002, 2003, 2004
     and in electronic format for  2005, 2006, 2007

      In 1996, Dr. Ken Haycock indexed the **Conference Proceedings 1972-1996**.  The printed version was included in School Librarianship: International Issues and Perspectives, pages193-235.   A copy of this index has been digitized, and is included with the Volume 4: 1971-2007 Archives Index CD.

4.2.  **School Libraries Worldwide (Journal)**
      Bound copies of Vol. 1-12 inclusive have been located and are now filed at WMU
      Since Volume 13 is the first electronic issue 3, a decision about how the

electronic formatted volumes will be captured, stored and maintained for future research and reference purposes needs attention by the Executive.

4.3.  **Newsletters**
      Back issues up to and including 2007, are bound, and are now on file at WMU.
      Forthcoming Board discussion to move the Newsletter to an electronic format should also address the future maintenance and storage of archival copies for historic research and reference purposes.

      In 1996, Dr. Blanche Woolls indexed the **Newsletter 1971-1994**.  Print copies of the index were made, and included in the "School librarianship: International Issues & Perspectives, pages 235-252.   This material has been digitized, and is include in the Volume 4: 1971-2007 Archives Index CD.

**5. Publicity**
5.1  Articles have been submitted to the Newsletter Editor each time a deposit of materials has been completed.

5.2  Conference 2008 provides a presentation and a display space to show some of the types of materials in the Archives, the indexes, and to make available the CD to interested members.

**6.  Assembly of Associations  Communique**
      Printed copies of all the Communique from the first publication in 1981 to 2007 are now on file at WMU (except for the years 1990,1991,1992 when no reports were prepared).
      A duplicate copy of each available issue has been retrieved with a view to digitizing and indexing this collection for reference purposes.   It is the only historic representation that the Association has of school library development around the world as reported from the grassroots.  When this indexing is completed one bound copy of the collection of reports will be deposited, along with a printed index.
      Digital copies of the Communiques and the index will be available at the 2009 conference.

**7.  Other publications** on deposit at WMU
    1969 Jamaica Library Service: 21 Years of Progress in Pictures 1948-1969
    1981 Library Service to Isolated Schools & Communities – Occasional Paper No.1
    1988 Books and Borrowers: Essays Presented to Margot Nilson (Taylor)
    1991 School Libraries: International Perspectives (Lowrie)
    1995 Convergence & Global Ethics: The International Association of School
          Librarianship and the Worldwide Promotion of School Libraries ( Knuth
          Dissertation)
    1996 Sustaining the Vision: Collection of Articles & Papers on Research (Clyde)
    1996 Sustaining the Vision 1971-1996: Memories  - A Sharing from Our Earliest
          Members (Lowrie /White)
    1997 School Librarianship: International Perspectives and Issues (Haycock / Woolls)

*8.* **Documentation at The Secretariat**

This report does not attempt to list the documents that are now housed at the Secretariat office. It is understood that there are copies of previous Proceedings and other publications on file there.

## 9. Access

If one wishes a particular item or collection of materials, a query can be forwarded with as many details as possible to:

**Dr. Sharon Carlson, Archivist**
**University Archives & Regional History Collection**
**Room 111 East Hall, East Campus,**
**Western Michigan University**           **Phone: 269-387-8490**
**Kalamazoo, Michigan 49008-5309 USA**
E mail: Sharon.carlson@wmich.edu or arch-collect@wmich.edu

One should expect that there will be a search, copying and mailing fee for materials which are requested. Contact the Archivist directly to negotiate these charges.

## 10. Further Actions Needed:

10.1. The Association needs to address a process so that all publications, materials and appropriate records will be automatically deposited on a regular, annual or monthly basis.

10.2. In the case where these publications are being generated only electronically, a policy will need to be put in place to collect the electronic editions, and to deposit at WMU on a regular basis.

10.3. For the Board, filing of electronic versions (or printed copies thereof) of Board meetings, discussions, drafts, and working documents needs to be formalized for the archives collection also.

10.4. The Board may wish to identify an individual member to be an Associate Archivist on behalf of the Association. Among other duties as assigned by the Board, this individual could be expected to:

1. collect documentation as it appears on the regular IASL listserv and blog
2. monitor electronic or other filing of all website and related publications and information management systems
3. ensure that mailing lists for standard publications such as Proceedings, Communique, Newsletters, Journals, and special publications are automatically deposited with the official archives
4. collaborate with the WMU Archivists in tracing missing items
5. assist in developing publicity and membership awareness of the archives, and its value to the history of school libraries worldwide

6. work with senior members of the Association to trace missing items from the current collection.

**Addendum**

Appreciation is extended to Past Presidents, Vice Presidents, Committee Chair persons, SIG Co-ordinators, and members in general who have contributed materials as they have cleared their files.  Each piece of information provides an additional picture of the Association as it has grown over the years.

This is the first deposit of its kind that has been received by the WMU Archives with such a complete and detailed index of the contents.   I have undertaken this as a personal project. It has been done at <u>no cost</u> to the Association.

Thank you for considering this report.  Your comments and feedback would be appreciated.

Gerald R. Brown
Honorary Ambassador, IASL
& Co-ordinator, Special Interest Group – International Development

# Toward a Pedagogy for Using the Internet to Learn: An Examination of Adolescent Internet Literacies and Teachers', Parents' and Students' Recommendations for Educational Change

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*This study observed adolescents' Internet practices as they did homework and explored student, parent and teacher views on Internet use for learning the academic disciplines. Findings revealed that instruction of the new literacies of the Internet should address strategic information searching and critical evaluation of online information. Factors of Internet use in schools are teachers' knowledge of technology, access issues, educational policy, and adult attitudes. Implications include prioritizing instruction of aspects of Internet literacy, implementing district and school initiatives targeted to enabling effective use of the Internet for learning, and transforming pedagogical frameworks of learning from fact finding tasks to inquiry processes..*

*Internet literacy, Information literacy, New Literacies*

## Purpose and Background

Today's students integrate technology into all aspects of their lives for multiple purposes, particularly socializing, entertaining and shopping (Lenhart, Madden, & Hitlin, 2005; Media Awareness Network, 2005; Organisation for Economic Co-operation and Development [OECD], 2005). Given the increasing reliance on the Internet by youth to do homework (Lenhart, Madden & Hitlin, 2005; Media Awareness Network, 2005) and the central place of the Internet in a knowledge-based economy (Leu, Kinzer, Coiro & Cammack, 2004) it becomes urgent to extend students' use of the Internet to learn the academic disciplines. Our study sought to identify skills requiring instructional support and pedagogical conditions for using the Internet to optimize students' learning of the academic disciplines. Specifically, objectives of our study were to 1) examine how youth use the Internet when they are doing homework, 2) identify the Internet skills and strategies that youth need to be taught, and 3) identify recommendations from students, teachers, and parents for using the Internet to improve learning.

In our study, we viewed Internet literacy for learning as synonymous to information literacy in online environments. Information literacy in online environments is more complex than in offline environments and includes navigating through vast amounts of information, evaluating the usefulness and integrity of information, and integrating multiple sources of information. Research is challenging the myth of technology-savvy youth and pointing to the pressing need for strategic instruction in these new literacies as well as more effective and meaningful integration of the Internet in learning (Bilal, 2000; Chung & Neumann, 2007; Coiro, 2003; Coiro & Dobler, 2007; Rowlands & Nicholas, 2008). In particular, research shows that today's youth need support in how to effectively search and locate information on the Internet, comprehend hypermediated text, critically evaluate online information, and use information in socially and ethically responsible ways (Coiro, 2003; Rowlands & Nicholson, 2008; Lawless, Shrader & Mayall, 2007; Shenton, 2007).

Several factors help explain some of the behaviors of youth Internet literacy. Background knowledge is a major factor in determining the relevancy and quality of information sources (LeBigot & Rouet, 2007). In school subjects, youth are building the background knowledge needed to make these judgments. Other research challenges the assumption that Internet expertise applies equally to all youth and is revealing other types of digital divides related to gender, development, and socio-economic status (Livingstone, 2006). Additionally, factors of Internet inquiry such as reader stance, reader beliefs, task purpose, type of text, and receptivity to changing view affect an individual's information literacy (Damico & Baildon, 2007a).

A key educational concern is how learning tasks are framed by teachers and interpreted by students. The school library field advocates inquiry-based approaches to learning (American Association of School Librarians, 2008); however, it appears that most students have a product-based and fact collection view of learning/research which is inadvertently reinforced in classroom discourse (Limburg, 2005). Limburg (1999, 2000) identified three approaches to information seeking that adolescents hold: fact-finding, finding the right answer, and scrutinizing and analyzing. She also found an interaction between students' information seeking approach and ways that students came to understand the issue they were researching (membership in the European Union). For example, fact finders gained only fragmentary knowledge of the issue, "right answer seekers" developed one perspective (primarily economic) on the issue, and the critical multi-source information seekers developed a complex ethically and politically based understanding of the issue.

The Internet revolution has had minimal effect on teaching and learning in school, creating a divide between young people's in- and out-of-school Internet usages (Lenhart, Madden, & Hitlin, 2005). Although 35% of school districts report that at least half of their teachers now use the Internet in school assignments (National School Board Association, 2007), and 68% of students report that they access the Internet at school (Rainie & Hitlin, 2008), it is unknown if schoolwork with the Internet follows conventional purposes (e.g., fact finding) or if assignments enable students to use new forms of knowledge-building such as wikis and social networks to build knowledge—activities that over half of youth engage out of school (Lenhart, Madden, Macgill & Smith, 2007). Further, it is not known if and how instructional support of the new literacies of the Internet is provided as current Internet use in schools appears to neglect advancing students' literacy strategies and skills required for the Internet (Leu, Zawilinski, Castek, Banerjee, Housand, Liu, & O'Neil, 2007). Given the relationship between computer experience and academic performance (OECD, 2005), increased effective Internet use in schools and instruction of Internet skills are both urgent

concerns. Leander (2007) found that when students were given the opportunity to use online information sources for a project, teachers assumed that, in contrast to offline print texts, "students needed a large degree of guidance directing them towards specific online texts, and that online space needed to be greatly simplified and selected" (p. 42), thus minimizing need for instruction. Schools have an enormous responsibility to address effective usage and instruction to fully support student learning of the academic disciplines.

## Methodology

This pilot study used multiple methods (case studies, interviews and focus groups) to observe adolescents' Internet strategies and examine student, parent and teacher views on using the Internet in school.

*Case studies.* Subjects were one male, Darren (age 15) and one female, Nicole (age 12 (both names are pseudonyms). Both came from homes where they had regular access to one of the family computers with high speed Internet connection. Parents of both students were professionals. Darren lived near a large university and went to the local public high school, and Nicole lived in a middle class suburb and attended the public middle school (grades 6 – 8).

Data sources were a) a record of the students' Internet use each time they did homework within a two-week period including an oral "think aloud log", and b) semi-structured interviews with the students and their parents. Most research about Internet literacies has used surveys, self reports and tests administered in laboratories with contrived tasks. These methods result in limited findings about complex processes such as navigating through vast amounts of unevaluated information, identifying what is important information in hyperlinked and multimedia text, and determining ethical uses of information. We used a new powerful web-based research tools to capture comprehensive and in-depth data about Internet processes while students were engaged in authentic learning activities of completing assigned homework. Morae software is designed for usability testing of software and websites and provides synchronous audio and video to record and observe users. In conjunction with the think aloud protocol, Morae allowed us to capture the complexity of students' Internet literacy processes with much greater validity and depth than other methods we explored. Figure 1 shows an example of a frozen frame of a Morae recording.

*Figure 1*

Morae recording
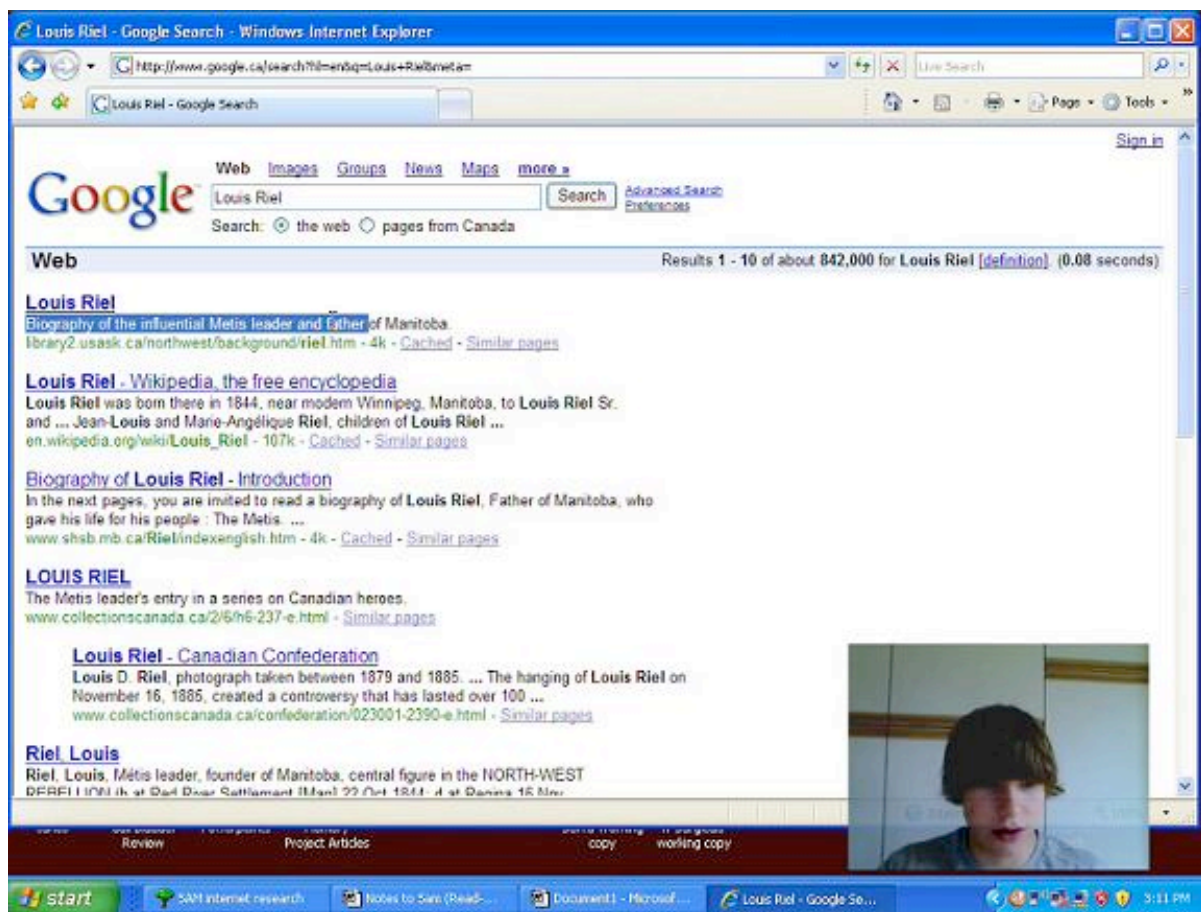


Students were trained in their homes about how to use Morae and how to do a simultaneous think aloud. They were given ample practice time both with the researcher and independently. Students in this age group typically have research assignments that they work on both at home and in school. Our research had been planned to observe students' Internet practices over the course of an assigned research project. However, after five months of waiting for data collection to officially begin, neither student had been assigned a substantive research project. We therefore had the students record their use of the Internet anytime they did homework over a designated two-week period. Tables 1 and 2 summarize the searching and navigation behaviors of each task recorded for each student over the two-week periods.

*Table 1*

Tasks, Time and Navigation: Student 1 (Nicole)

| Session | Task | Time (minutes.seconds) | Number of web pages visited | Number of searches conducted | Number of internal links connected to | Average time on web page (seconds) | Average time spent choosing search result (seconds) |
|---|---|---|---|---|---|---|---|
| 1 | Preparing book cover image with Photoshop | 4.06 | none | none | none | N/A | N/A |
| 2 | Finding information about a dog breed | 8.11 | 10 | 2 | 5 | 36.5 | 1.1 |
| 3 | Finding information about Cleopatra | 1.0 | 1 | 1 | none | 15 | 6 |
| 4 | Learning how to do an algebraic equation | 3.45 | 7 | 2 | 3 | 18 | 4.3 |
| 5 | Finding information on Operation Bernhard | 6.46 | 3 | 2 | 1 | 115 | 2.4 |

*Table 2*

Tasks, Time and Navigation: Student 1 (Darren)

| Session | Task | Time (minutes.seconds) | Number of web pages visited | Number of searches conducted | Number of internal links | Average time on web page (seconds) | Average time spent choosing search result (seconds) |
|---------|------|------------------------|------------------------------|-------------------------------|---------------------------|-------------------------------------|-------------------------------------------------------|
| 1 | Write a short biography on Louis Riel | 11.5 | 3 | 2 | 1 | 154 | 34.4 |
| 2 | Compare book and film of *To Kill a Mockingbird* | 19.43 (approximately 10 minutes "off task") | 18 | 3 | 12 (while on task) | 41.6 | 9.3 |
| 3 | Learn about current electricity | 4.58 | 6 | 7 | none | 26.3 | 3.7 |

Interviews with the two case study students and their parents were conducted near the end of the Morae data collection period of two weeks. Questions for students focussed on the technologies they used and their recommendations on ways of using technology to help them learn in school (Appendix A). Parent interviews addressed how the Internet helps learning, parental roles in their child's Internet use, and use of the Internet in school (Appendix B). One focus group was conducted with five grade 8 students ages 12 and 13 (grades 6 – 8) using the same interview questions as used with the case study students. In another focus group, four teachers and one administrator from the same school discussed types of technologies students regularly use in their classrooms, what it is about those technologies and the Internet that engages them, and how student uses of these technologies (and the Internet) in school might differ from out-of-school uses (Appendix C).

*Data analysis.* This paper reports findings from qualitative analyses of the Morae observation data from the case study students and interview data from all participants (case study students and their parents, and focus groups of teachers and students). All observation data was coded for Internet literacy practice (locate and select; evaluate; synthesize; communicate). All interview data and the think aloud logs of the case study students were transcribed and analyzed using the constant-comparative method to identify emerging themes within the broad categories of a) Internet literacy skills requiring instruction, and b) factors of effective use of the Internet to support learning the academic disciplines.

## Results

*Internet skills needing instruction: Strategic searching and critical evaluation.* Despite their extensive use of the Internet, students lacked skills in many areas but particularly in locating information and critical evaluation of Internet sources. Our case study students consistently began their information searches with Google (typing in

[www.google.com](www.google.com) rather than accessing it from their toolbars), then entering a very few keywords with no search markers. Wikipedia was frequently the first site to appear on their result list. They typically and rapidly selected the first hit and read a few line at the top of each website, and moved onto other sites in seconds. Clip 1 ([http://www.screencast.com/t/awJ0AEAk](http://www.screencast.com/t/awJ0AEAk)) shows Nicole using broad everyday language to search on Google for a particular type of dog. Clip 2 ([http://www.screencast.com/t/dmc45hL4Wxu](http://www.screencast.com/t/dmc45hL4Wxu)) clearly demonstrates the well established practice of rapidly selecting search results from the top of the list. Clip 3 ([http://www.screencast.com/t/jgQrq8ZhdS](http://www.screencast.com/t/jgQrq8ZhdS)) shows Nicole rapidly skimming several sites consistently focussing on the top of the pages she selected. Thus the overall information search pattern was Google, Wikipedia, select from top of hit list, skim the first lines, back click to the Google results, and move on to another result from the top of the hit list.

Observations of our case study students showed that their primary criteria for evaluation of websites was whether it served their information search purpose. If the site contained just the topic they were looking for, they were satisfied. At no time did either student apply criteria that they were likely introduced to in school, such as currency, authority and validity. Neither did they ever compare sources on the topic, an important aspect of critical literacy. Clip 4 ([http://www.screencast.com/t/LeiDm46xuS](http://www.screencast.com/t/LeiDm46xuS)) show Darren evaluating the usefulness of sites for his science assignment, but finds the information is all too complex or too simple. He concludes his textbook is the better source of information for this purpose. Clip 5 ([http://www.screencast.com/t/F3bdCBG5Ftz](http://www.screencast.com/t/F3bdCBG5Ftz)) again shows Darren evaluating web resources by their usefulness for his English assignment. It's interesting that by going to a forum he indicates that public knowledge is as acceptable as "expert" knowledge. However, based on usefulness for his purpose, although he finds much interesting information about actors and films, he claims eventually that the site is "no help whatsoever.

This need for assistance in this area was echoed in student and parent interviews and students and teachers in our focus groups. One student recognized the possibility of retrieving false information, but did not have the resources to solve the problem. He admitted that many websites may be good sources, but was unsure if he could trust the information. One student wanted teachers "to give students reliable sites to go to and to tell [them] to avoid going to lesser known sites". During the interviews with the case study students they both spoke about their awareness of unreliable information on the Internet. Both students noted while they selected a Wikipedia information source that it's "always a good place to start." Parents were concerned about their children accessing credible information and wanted them to be taught to "access particular resources that are appropriate."

Teachers in our focus group felt that all teachers were responsible in helping students to be critical users of online information. They were aware of students' tendency to Google and "click and grab." They discouraged the use of Wikipedia except for one teacher who used it in a critical thinking lesson in which students were to "choose a topic, read the Wikipedia article, find something in it that's false or wrong. But as far as just straight off, using as a source for their research, no." One teacher explained how he "spent periods of time, just looking for sites and evaluating them and talking about what you look for on it. What on the web makes it credible, what doesn't make it credible? But ultimately, when they go home and do it, do they just click on anything?" The teachers agreed that providing preselected sites was the best practice as students are more productive than when left to independently search the web.

*Factors of using the Internet to learn: Teacher knowledge, access, policy and attitude.* As Lankshear and Knoebel (2003) found, most of our student participants thought that their technological expertise surpassed that of their teachers making it difficult for teachers to offer authentic assistance to their students. The teachers that we interviewed had varying skills and as a result used the Internet for varying purposes. The teachers that were more technologically literate tended to use newer technologies like social bookmarking and webquests with their classes. They also did not allow accessibility to prevent assigning Internet based projects, telling the kids that "not having access to a computer wasn't an excuse" and spending some class time to "brainstorm ways that they [could] get around" accessibility issues.

Teachers with less technological expertise more easily abandoned pursuing Internet based assignment. For example, one teacher attempted to have students submit their assignments via email, but because he faces "so many problems with that, it just works easier if they are given a hard copy." Although this teacher was willing to take the risk and time to incorporate Internet literacy in his classroom, he explained he would need much greater support from the school to continue doing so.

Indeed, a recurring theme throughout the interviews with the parents, students, and teachers was that teachers did not assign much work conducive to Internet use because of accessibility issues. The students said that their teachers felt that it was not fair to assign Internet related work when all students did not have Internet access. Teachers were frustrated with school access to computers as well. The idea of a "one-to-one program where every kid has a laptop" was favored because otherwise teachers would need regular "access to a computer lab dedicated to each class" to make it possible "to really teach the usage of those tools in an educational way." Students recommended that they be "allowed to bring laptops to school," to "use more computers" at school, and to "have a copy of class lessons on the school website" for students to access.

Even with improved access, time was another important issue brought up by teachers. How could they find the time to learn all these new technologies and further find the time to create innovative lessons? How could they find the time to attend workshops to help them with these issues? Again, teachers recommended greater support at the school and district level to surpass these obstacles.

At the administrative level, however, a conflict arises. Districts and schools want to promote Internet literacy but are limited by funds and by liability. They inadvertently hinder Internet literacy skills by trying to prevent bullying and trying to enhance classroom management. Our student participants regularly communicated over the web while at home, showing that the Internet could be a tool conducive to working on group projects or collaborating on homework assignments. Some districts, however, have banned communication programs and refuse students access to them. For example, both MSN messenger and Facebook were banned at the schools of the two case study participants, a national trend in North America (National School Boards Association, 2007). This supports the findings of Asselin, Early, and Filipenko (2006) and Leu, Ataya, and Coiro (2002) that the incorporation of the Internet in the school curriculum is highly limited as was borne out in our long wait to commence data collection as we were waiting for students to be assigned a project that would be conducive to Internet use. They told us that most of their homework required only the use of their textbooks.

One parent said, "I think because school doesn't particularly see the Internet as a resource or software as a way for him [my child] to present information that he's put together, he tends to use it for communication purposes. So he's on MSN talking to friends, he downloads music, he plays games. So he really sees it more of as a kind of recreational space than a space for learning." When observing the case study students, we did often see that homework sessions ended in play in the forms of games or leisurely communication (Facebook). Parents felt that districts are "remaining in a very traditional kind of textbook mindset, and they're not really supporting students to use the Internet" and that "it's underused by the school a great deal." Yet at the same time, parents too were concerned about Internet predators and the dark side of the Internet. One set of parents viewed books and the Internet as polarities.

Our last finding was a peculiar one, yet epitomized our results in that it showed everyone's limited knowledge about the Internet. Teachers, parents and students alike often mixed up the term Internet with the term computer, using it interchangeably. They often referred to activities that could be done offline as Internet activities. For example, when asking parents how their children used the Internet, we received replies such as they use it for making presentations and typing up assignments. Teachers also talked about programs like PowerPoint and Microsoft Word when asked about Internet work they assign. One student even recorded herself using Photoshop to create a picture for a school project although she was instructed to record herself while doing school work on the Internet. This confusion with the term Internet and any other computer use, shows us that feelings toward Internet use may be clouded by feelings toward general computer or technology use.

## Conclusions and Educational Significance

In their study of post-secondary students' use of digital resources, Rowlands and Nicholas (2008), concluded that there is "a desperate need for . . . educational research and inquiry into the information and digital literacy skills of our young people" (p. 32). The reasons for this research are simply that Internet literacy can significantly influence academic performance (OECD, 2005) and is a critical factor of participation in a knowledge-based economy (Leu et al, 2004). Our study extended the small but rapidly growing literature in this area. We are particularly interested in continuing to explore new methodological tools such as Morae to gain more indepth and accurate understanding of youth Internet literacy. From our pilot study, we feel there is great potential in using such innovations alongside more traditional methods as interviews and document collection. This stage of our research program was not designed to examine variables of Internet literacy abilities and quality of student learning when the Internet is the primary tool. The next stages of our research will observe students from diverse backgrounds and classrooms over longer periods of time and in a range of learning contexts. Our goal is identify most important aspects of Internet literacy for instruction and effective ways of using the Internet to support learning the academic disciplines.

Many themes surfaced during our study. Like that of Lenhart, Madden, and Hitlin (2005) and Lewis and Fabos (2005), our study found that students are using the Internet for a variety of purposes; however, participants still lacked skills in many areas of Internet literacy especially where learning was concerned. These results concur with findings of Coiro and Dobler, 2007; Guinee, Eagleton and Hall, 2003; Henry, 2006; Rowlands and Nicholas, 2008; Shenton, 2007. Students need to know how to effectively and efficiently locate and select information for their purposes. Their preference for Google indicates their comfort with it as

well its user friendliness. However, this behavior also suggests their limited knowledge of the Internet as a collection of resources from different providers, and limited knowledge of search engines and data bases, including services developed by their school libraries. Similarly, their propensity to select first level hits indicates their lack of understanding of marketing forces of search results.

Students' rapid and numerous navigations of individual sources of information accounted for significant time that students spent on the assignment whereas much less time was observed comparing across information sources and synthesizing from sources. Whereas we recognize that the ultimate goal is to have students access high quality information and that are multiple means of accomplishing (including Google and Wikipedia), nonetheless, we were troubled that not once did either of the case study students begin their searches with their school library websites which had extensive customized collections of online resources by grade and subject. We were especially concerned with the little evidence of analyzing information even using conventional criteria. There is a compelling need for multiple dimensions of critical literacy in digital learning environments such as the Internet (Kapitzke, 2003, 2005) so that students learn to evaluate techniques used to influence readers and be able to reflect on their own beliefs and values that in turn shape interpretation of information. Damico and Baildon (2007b) found little evidence of this ability in grade 8 students. However, Darren's use of public knowledge sites such as the forum he went to suggests a shift in perception of what counts as valid information.

We did not observe any use of the Internet for communicating new knowledge; both case study students predominantly engaged in information searching suggesting a fact gathering approach to their learning. However, the perceived purpose and context in which these Internet literacies are taught and practiced is what is crucial (Damico & Baildon, 2007; LeBigot & Rouet, 2007; Limburg, 1999), or new skills will continue to perpetuate old thinking. The learning tasks that Nicole and Darren undertook appeared to be structured as fact gathering, textbook-based exercises. Teachers have to find the balance between doing too much for students (by providing preselected websites) and teaching them the skills to be independent learners.

Given the shift of the information environment from finding, locating and evaluating information to one of using information, creating knowledge and sharing ideas (Todd, in press), our lack of evidence of any of these activities for school tasks was disconcerting. The teachers we interviewed indicated they were excited about what they saw their students doing on the web with these new tools and saw potential in integrating them into their teaching. However, teacher competence, user knowledge, access and policies discouraged these pedagogical advances. Team-based initiatives targeting these major factors should be implemented so that teacher knowledge, access, policy and attitude become enablers of effective instruction and use of the Internet for learning. Teacher librarians have a key role to play in such initiatives as they bring a broad knowledge of curriculum, digital learning technologies and associated policies, and information literacy. Although teacher librarians support their own profession, they are well positioned to extend their expertise to teachers, administrators and parents in all of these areas.

What it means to be literate in the 21st century is expanding rapidly and includes "proficiency with the tools of technology; ability to manage, analyze and synthesize multiple streams of information; and design and share information for global communities to meet a variety of purposes" (National Council of Teachers of English, 2008). According to the American Association of School Librarians (2008) it also means being able to

- inquire, think critically, and gain knowledge;

- draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge;

- share knowledge and participate ethically and productively as members of our democratic society;

- pursue personal and aesthetic growth.

These abilities are encompassed in expanding notions of information literacy as well. If schools are to prepare literate citizens and persons for the 21$^{st}$ century in the abilities that are outlined by such professional associations as the National Council of Teachers of English (2008) and the American Association of School Librarians (2008), then the ways in which information environments are changing need to be central constructs for curriculum and pedagogy. Some models are beginning to appear (Boling, Casket, Zawilinski, Barton, & Neirlich, 2008; Kapitzke, 2005; McNabb et al., 2006; Trier, 2007a & 2007b). Teacher librarians are poised to take a vital role in ensuring that students develop essential Internet literacy skills and are provided with rich contexts for using the Internet to learn the academic disciplines.

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**Appendix A**

*Student Interview Questions: Case Studies and Focus Groups*

1.   How would you rate your skill level with using the Internet? Compared to your friends? Other people your age?

2.   Tell us about what kinds of technology you regularly use in everyday (out of school) life and the purposes you use them for.

3.   What is it about these technologies that make them such a part of your everyday life? What is it about the Internet that makes it a regular part of your life?

4.   Describe the ways that you use the Internet (Internet access technologies) at home compared to how you use it at school.

5.   What recommendations do you have for teachers about ways to use the Internet (and technologies that have Internet access) that would help you learn what you have to learn in school.

# Appendix B

*Interview Questions for Parents of Case Study Students*

1.	What do you believe about the value of the Internet in helping your child a) to learn generally, and b) to learn school subjects?

2.	What is your role as a parent in your child's use of the Internet?

3.	What have you observed about your child's school Internet policies? About the ways your child uses the Internet in school?

4.	What recommendations do you have for schools concerning the use of the Internet in supporting student learning of school subjects?

## Appendix C

*Interview Questions for Teacher Focus Groups*

1.  What do you believe about the value of the Internet in helping students a) to learn generally, and b) to learn school subjects?

2.  Tell me about the ways you have your students use the Internet to support their learning of the curriculum.

3.  What challenges do educators face in integrating the Internet into teaching the curriculum?

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Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Task-based Models of Children's Information-seeking Behavior in Digital Libraries

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*This paper presents four empirical task-based models of Arabic-speaking children's information-seeking behavior in using the International Children's Digital Library (ICDL). Children performed four tasks that varied by type and structure. The models consist of seven modes of behavior and a range of moves associated that characterized children's behavior. Included are affective states before and after using the ICDL. Children's behavior was iterative and non-linear. The type and structure of the tasks influenced children's information-seeking behavior. Implications are made for practitioners, school teachers, and researchers.*

*Keywords: Children, digital libraries, task-based models, ICDL.*

## Introduction

The field of information-seeking behavior, in general, and that concerns children, in particular, lacks understanding of how children interact with digital information environments at both the national and international levels. While a body of research is available about children's use of various information retrieval systems, no models of their information-seeking behavior in digital environments exist.

Existing models of user information-seeking behavior in digital environments (e.g., Marchionini,1995; Ellis & Haugan, 1997; and Choo, Detlor, & Turnball, 2000) and general models described by Case in his books on information seeking (2002; 2007) are typically geared toward adult users. There are a handful of models applicable to children and young adults. The Big6 Skills (Eisenberg & Berkowitz, 1990) focuses on problem solving, is theoretical in nature, and was developed in a traditional information environment. Kuhlthau' Information Search Process model (2003) is empirical in nature and was initially developed in 1991 based on undergraduate students' information search process and later validated with high school students. However, the model is yet to be validated with younger children. Enochsson (2005) developed a model of six skills that Swedish students regarded as fundamental for successful Web searching skills: language, knowledge about the technology, knowledge about different ways of information seeking, how search engines work, setting goals, and being critical. The model focuses on skills rather than information-seeking behavior. In a recent study, Agosto & Hughes-Hassell (2006) modelled the everyday life information needs of teenagers, but did not explore their information-seeking behavior in using digital systems to meet these needs.

Many researchers argue that information seeking is a task-based behavior because it takes place in context that is determined and motivated by a specific task and its complexity (Kim, 2007; Vakkari, 2003; White, Jose, & Ruthven, 2003; Jarvelin & Ingwersen, 2004; Gross, 2004; Vakkari, 1999; Marchionini, 1995; Bystrom & Jarvelin, 1995). Existing literature on children's information-seeking behavior (Bilal & Bachir 2007a; Bilal & Bachir, 2007b; Chelton & Cool, 2007; Bilal, 2005; Bilal & Wang, 2005; Druin, 2005; Bilal, 2004; Chelton & Cool, 2004; Large, 2004a; Large, 2004b; Bilal, 2003; Shenton & Dixon, 2003; Bilal, 2002a-b; Bilal & Kirby, 2002; Large, Beheshti, & Rahman, 2002; Druin, 2002; Bilal, 2001; 2000; Large & Beheshti, 2000; Large, Beheshti, & Moukdad, 1999; Bilal, 1999; Bilal, 1998; Schacter, Chung, and Dorr, 1998), and of user information seeking, in general (Case, 2007; Case, 2002) lacks a task-oriented model of children's information-seeking behavior in digital environments. This paper is a first attempt towards filling this gap by modelling Arabic-speaking children's information-seeking behavior in using the International Children's Digital Library (ICDL).

*ICDL as an international Web interface*

The goal of the ICDL (*http://www.icdlbooks.org* ) is to build a collection of digital books that will ultimately make every culture and language represented in its collection available to children ages 3-13. To date, the ICDL has a collection of 2451 books in 45 languages including Arabic. The Arabic collection includes 26 books that have been contributed by Bibliotheca Alexandrina located in Alexandria, Egypt. The ICDL has three different interfaces to use for finding books: Simple, advanced, and location. A full description of these interfaces is provided on the ICDL website.

## Research Questions

This paper addressed these two research questions: 1. What task-based empirical models can be generated based on Arabic-speaking children's information-seeking behavior in the ICDL, and 2. What impact does the type of task have on children's information-seeking behavior in the ICDL?

## Related Literature

This section will focus on two main bodies of related literature on children's use of digital libraries: 1. The ICDL, and 2. Artemis.

1. *The ICDL*

In a recent study, Bilal & Bachir (2007a-b) examined the cognitive, affective and physical behaviors of ten Arabic-speaking children's information seeking and success in using the ICDL to find and read Arabic books. Children performed four tasks that varied in structure (assigned, semi-self generated and fully self-generated) and by type (fact-and research-based). Data collection took place at Bibliotheca Alexandrina located in Alexandria, Egypt. Children's interaction on each task was captured online using HyperCam. Their affective states were elicited during exit interviews. Children's information-seeking behavior was characterized by browsing using a single function; that is, looking under Arabic language from the pull-down menu. Children were more successful on the fully self-generated research-based task than on the assigned or semi-assigned tasks. Older children were more successful in finding information than younger ones. The type of task influenced children's success, time taken, and the number of moves made. Not being skilled in the English

language created a barrier to children's full exploration (i.e., keyword searching) of the ICDL. Children expressed anxiety and uncertainty as to their ability to use the ICDL successfully before using the ICDL, but were certain and satisfied after completing the tasks. Children made recommendations for improving the ICDL to support their information behaviour and needs.

An earlier study by Hutchinson, et al. (2005) examined elementary school children's searching and browsing in two new interfaces developed for the ICDL category browser. One is simultaneous and another is sequential. Children created more Boolean searches in the simultaneous interface than in the sequential interface. Older children were more successful than younger ones, performed the tasks faster, took less time, and needed less assistance in navigating the ICDL. The authors recommended improving the design of subject taxonomies in the ICDL.

In a related study, Reuter & Druin (2004) investigated the searching and book selection behaviors of ninety-six first- through fifth-grade students from the suburbs of Maryland in using the ICDL. Age and gender influenced searching and book selection. Younger children preferred simple and more interactive interfaces; whereas, older children favored more sophisticated interfaces. Children in grades one through five were able to navigate the category structure to browse, but were unable to use Boolean logic. The authors suggested search and browse features to implement in the ICDL for younger children.

*2. Artemis*

Artemis interface was developed at the University of Michigan to assist students in searching online collections. Artemis allows users to store search results in a workspace, browse collections, search by keyword, and access diverse internal and Web collections. Unlike the ICDL, Artemis is not available in the public domain. Bos et al. (2000) assessed the usability of the first version of Artemis with high school and middle school students. Findings revealed that the students spent time evaluating search results and searched metadata such as document titles, collection titles, and abstracts. Students developed fairly sophisticated search strategies, using both browsing and searching, and constructed multiple keyword searches. Overall, high school students did not use Artemis as often as did middle school students due to long start-up time and access availability only from high school.

In a recent study, Abbas, Norris, & Soloway (2002) examined a group of six graders' use of Artemis from 32 public middle schools. Individual classes and achievement levels influenced children's use. Students who attained a higher grade used Artemis more efficiently and tended to use more searching and organizing scaffolds as compared to lower grade users who used more of collaborative scaffolds. A mismatch was found between the students' search terms and the controlled vocabulary employed in Artemis. The authors suggested that the students' representation scaffolds of search terms be used to learn more about how they represent and express their information needs to the system an how the system should be redesigned to support these needs.

**METHOD**

A quantitative method was employed to collect data about children's information-seeking behavior in using the ICDL. Children's screen activities on each task was captured using HyperCam, a software package that captures screen activities. A qualitative method that utilized exit interviews elicited children's affective states.

*Participants*

Ten Arabic-speaking children ages 6-10 participated in data collection. The children were recruited by staff at Bibliotheca Alexandrina's Children's Library. Four children were male and six were female. One child was six-years old, three were seven-years old, two were eight, two were nine, one child was nine and a half years-old, and one was ten-years old. Children possessed adequate level of computer and Internet experience. Only one child was familiar with the ICDL. All children had limited English language skills.

*Procedures*

Data collection took place in late December 2004 at Bibliotheca Alexandrina Children's Library. Children were divided into two groups of five and their use of the ICDL was scheduled on two separate days. After signing consent forms, each group was escorted to a computer lab equipped with five PCs. Children were verbally introduced to the tasks and given a written task sheet with instructions. Each child's screen activities on the four tasks was recorded, saved, replayed, and burned onto CDs. Children were interviewed upon completion of the tasks and their affective states were elicited.

*Tasks*

Children performed four tasks that varied in type (fact- and research-based) and in nature (assigned, semi-assigned and fully self-generated). The fact-based assigned tasks were: 1. How many books does the ICDL have in the Arabic language, and 2. Find a book in the Arabic language named *Dima* and open the first page of the book. The research-based semi-assigned task was: Find a book about *animals* in the Arabic language and write the name of the book on your sheet, and the research-based fully self-generated task was: Find any book in the Arabic language and read as many pages as you can.

*Data Analysis*

Each child's activities on each task was coded and analyzed. Each action a child made on each task was input into an excel sheet that included the sequence of the action, a description of the action, and comments/observations about the action. This process resulted in forty combined excel sheets on the four tasks (4 tasks x 10 children). We categorized each action under the 7 modes of information seeking-behavior developed by Bilal, Sarangthem, & Bachir (2008-in press).

Since no models of children's information-seeking behavior in digital environments exist, we reviewed selected models of adult user information seeking-behavior that are often used as a framework for generating new models (Ellis & Haugan, 1997; Choo, Detlor, & Turnball, 2000; Marchionini, 1995) and adapted certain processes from these models to build the models described in this paper.

## Results

This paper addressed two research questions: 1. What task-based empirical models can be generated from Arabic-children's information-seeking behavior in using the ICDL?, and 2. What impact does the task have on children's information-seeking behavior? The results are reported within the context of each question.

*1. Task-based models of Arabic-speaking children's information-seeking behavior.*

The task-based models shown in Figures 1-4 show the 7 modes that characterized children's information-seeking behavior in the ICDL and the range of moves associated with them. The modes are indicated **M**, the moves as **MV**, and the transitions between the modes as **T**. The **Start** mode in each model is preceded by an information need, which is a priori for seeking information on a task (Bilal, 2002; Marchionini, 1995; Bystrom & Jarvelin, 1995; Belkin, 1980). A description of the modes and moves are as follows:

**Start (M1):** This is the first step for beginning a task after a child recognizes the information need. It generally begins with **scanning (M1V1)** the features of the ICDL homepage such as icons, Simple search, Advanced search, and Keyword search. The resulting action is **selecting (M1V2)** the Simple search feature by clicking on it. Children return to the homepage to restart a task or to choose a different interface feature to explore.

**Recognize (M2):** In this step, a child **scans (M2V1)** the language pull-down menu from the Simple Search interface and **selects (M2V2)** Arabic language. This move results in a display of thumbnails of Arabic books.

**Browse (M3):** In this step, a child scans the list of book thumbnails and moves to the next page to view additional thumbnails. Here two types of browsing are observed: **Directed** and **Semi-directed**. **Directed** browsing includes **viewing (M3V1)** and **verifying (M3V2)** the information. It is guided by a target such as the assigned fact-based tasks. **Semi-directed** browsing consists of **examining (M3V3)** the information found. It is achieved when the target is less definite such as the behavior observed on the fully self-generated open-ended task.

**Differentiate (M4):** In this step, a child views Arabic books and selects the book that meets the need of the task. Two types of discrimination behavior were observed: **Directed** and **Undirected. Directed** differentiation consists of **viewing (M4V1)** and is similar to the directed browsing in that it is focused and has a target such as finding information for the known-item tasks (tasks 2 and 3). **Undirected** differentiation has very little focus such and is characterized by **sweeping (M4V2)**. This type of behavior occurred on the fully self-generated open-ended task that entailed viewing many books before deciding on a book of interest to read.

**Read (M5):** In this step, a child reads the title of a book to answer task 2 (known-item title, *Dima*), or reads the first three pages of a book to answer task 3 (known-item subject, *Animals*), or reads one or two books on a topic of interest for task 4 (fully self-generated, open-ended). Reading results in using a source and/or learning about its content. For example, a child opens a page of a book, reads it, learns about the content, and moves forward to read the next page. Two types of behaviors are observed in reading: **Directed** and **Undirected**. Directed reading consists of **viewing (M5V1)** and engaging in reading an entire book or specific pages of it. This behavior is seen on the assigned fact-based tasks. **Undirected** reading is characterized by **flipping (M5V2)** book pages and sometimes without actually reading the text. Flipping takes less time than viewing and engaging in reading. This behavior occurs frequently on the fully self-generated research-based task.

**Explore (M6):** In this step, a child clicks on selected navigation controls (e.g., icons, buttons, arrows, etc.) embedded in the ICDL and/or the Internet Explorer browser to discover their purposes. Exploration occurs throughout information seeking, but is more frequent during reading. For example, a child clicks on the plus sign (+) icon located at the top navigation bar of the screen and finds that a page is amplified. The child then clicks on the minus sign (-) and the page returns to its original size. We classified this move as **navigating (M6V1).** We named children's use the ICDL buttons for back arrows and the Internet Explorer Back button as **backtracking (M6V2)**.

**Finish (M7):** In this step, a child ends a task and moves to another one or stops upon completion of task four. Finishing sometimes results in note taking, which occurred when children are instructed to write down the answers for the fact-based tasks (1 and 3) on the task sheet.

2. *Task impact on children's information-seeking behavior in the ICDL.*

The models show major differences in children's information-seeking behavior across the four tasks (Figures 1-4). As seen in Figure 1, children used five out of seven modes of behavior on Task 1, performed only three moves associated with the *Explore* mode, and made a few transitions between the modes. At the *Start* mode on Task 1, children made the highest number of moves that included Scanning and Selecting (MV=25) followed by Directed Viewing moves under the *Browse* mode (MV=13). Directed Viewing was target-oriented and influenced by the type of this task, which was fact-based (find the number of Arabic books in the ICDL).

On Task 2, children's behavior was characterized by the 7 modes of information seeking (Figure 2). Children's browsing increased from MV=13 on Task 1 to MV=40 on this task; however, the type of browsing moves remained the same (View/Verify). Children made MV=11 moves under the *Differentiate* mode that were both Directed (View) and Undirected (Sweep). Reading was minimal on Task 2 (MV=7). Children's Navigation and Backtracking moves associated with the *Explore* mode were higher on this task (MV=13) than on Task 1 (MV=3). The overall children's behavior on Task 2 was non-linear and more iterative than it was on Task 1.

Children made transitions among the various modes of information seeking on Task 3, from *Browse* to *Differentiate* and vice versa, and from *Differentiate* to *Read* and vice versa, among other ones (Figure 3). Task 3 was open-ended, semi-assigned, and asked children to find a book of interest about *Animals* and to transcribe the name of the book on the task sheet. Children's browsing moves were both Directed and Semi-Directed (MV=36) and *Differentiation* moves were Directed and Undirected. The latter moves were higher on Task 3 as opposed to those on Task 2 (MV=29 vs. MV=11, respectively). Finding a book of interest about Animals resulted in more reading than anticipated (MV=47). Reading moves were both Directed (Viewing) and Undirected (Flipping). Children's exploration seen under the *Explore* mode was higher on Task 3 (MV=21) than that on Task 2 (MV=13). Overall, children's behavior on Task 3 was much more iterative and non-linear than it was on Tasks 1 and 2. The more open-ended the task was, the more iterative moves and transitions between the modes are observed in the models.

On Task 4, children's information-seeking behavior was similar to that on Task 3, with the exception of reading shown under the *Read* mode (Figure 4). The highest number of moves children made on Task 4 were associated with the *Explore, Browse, Differentiate,* and

*Read* modes. Reading moves were both Directed (View) and Undirected (Flip). The highest number of reading moves are on Task 4 (MV=187). This is not surprising because the task was open-ended and fully self-generated, allowing children to select their own book of interest on any topic and to read as many pages as they could. Children's overall behavior was non-linear and iterative across most of the modes of information seeking.

## Conclusion and Implications

The seven modes that characterized Arabic-speaking children's information-seeking behavior in the ICDL and the various moves associated with them are based on the general model of Arabic-speaking children's information-seeking behavior in using the ICDL (Bilal, Sarangthem, & Bachir, 2008, in press). The general model is based on the results of the studies by Bilal & Bachir (2007a-b). The models will be validated in future research with children of different cultural background.

The task-based models are empirical in nature and should serve as a framework for building holistic task-based models of children's information-seeking behavior in digital environments. Our models benefited from existing models of adult user information-seeking behavior in digital environments, especially those by Marchionini (1995), Ellis & Haugan (1997), and Choo, Detlor, & Turnball (2000). Due to space limitation, we did not compare our models with these models.

The models represent children's information-seeking behavior in using the ICDL and have implications for practitioners and school teachers as they may assist these professionals to become cognizant of the non-linear nature of children's information seeking in digital environments. Steps children are asked to follow in the research process should be flexible to allow for exploration and discovery. A variation in task assignment should be provided to children to uncover how their information seeking behavior varies across tasks and, determine the type of professional assistance they need to support the behavior.

The models show negative affect experienced by children before using the ICDL and positive affect upon completion of a task. Future research should explore the progression in children's affective states at different stages of the information-seeking process to identify whether these states influence their cognitive behavior. Practitioners and teachers should become aware of how positive and negative affect may influence children's information seeking, especially when asked to use information systems that are unfamiliar to them, and to provide effective strategies to help them cope with negative affect (Bilal, 2007; Nahl & Bilal, 2007).

Researchers interested in exploring children's and young adults' information seeking and use of resources in various digital interfaces are encouraged to use the task-based models described in this paper and validate them. Research is being planned by the first author to test the general and the task-based models with Arabic-speaking children in Lebanon in using the Arabic version of the ICDL.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the authors and that the paper was conceived and written by the authors alone and has not been published elsewhere. All information and ideas from others are referenced.

# Appendix

Figure 1. Model for task 1.



Figure 1. Model for Task 1

Figure 2. Model for task 2.
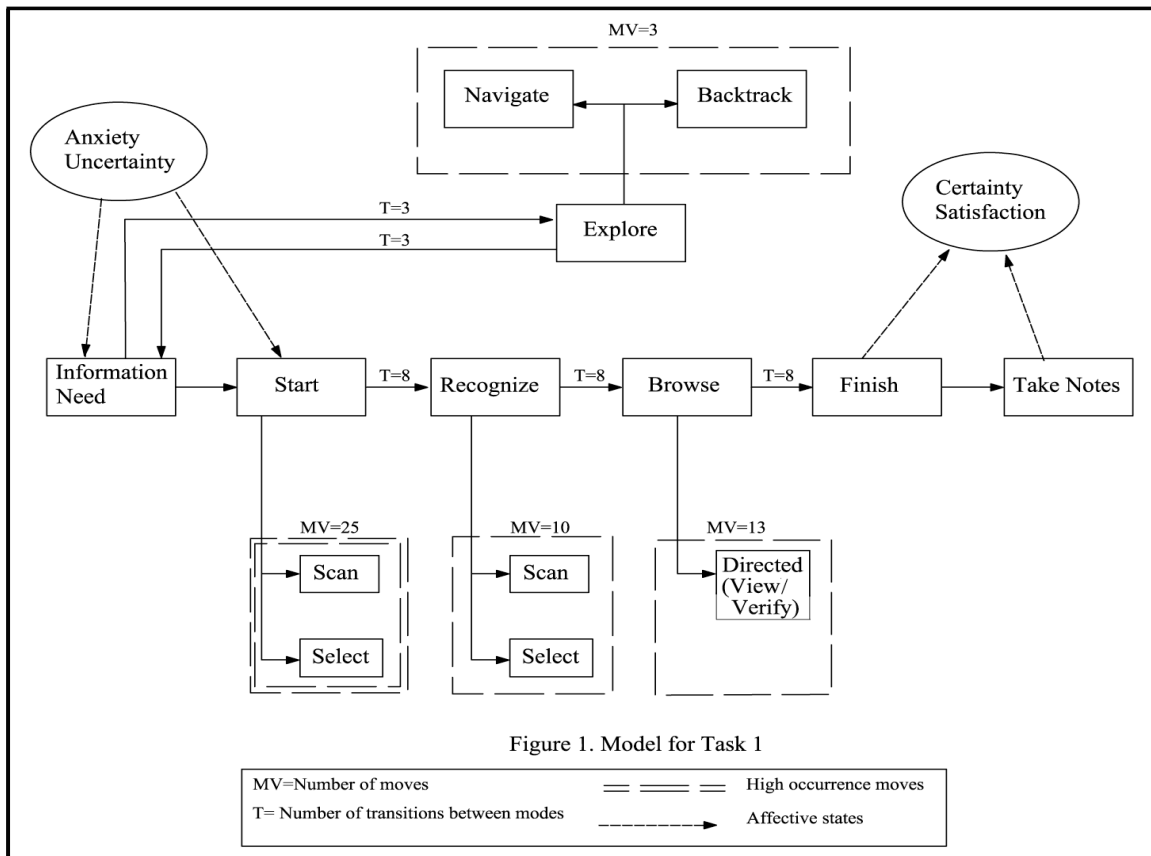


Figure 2. Model for Task 2

Figure 3. Model for task 3.
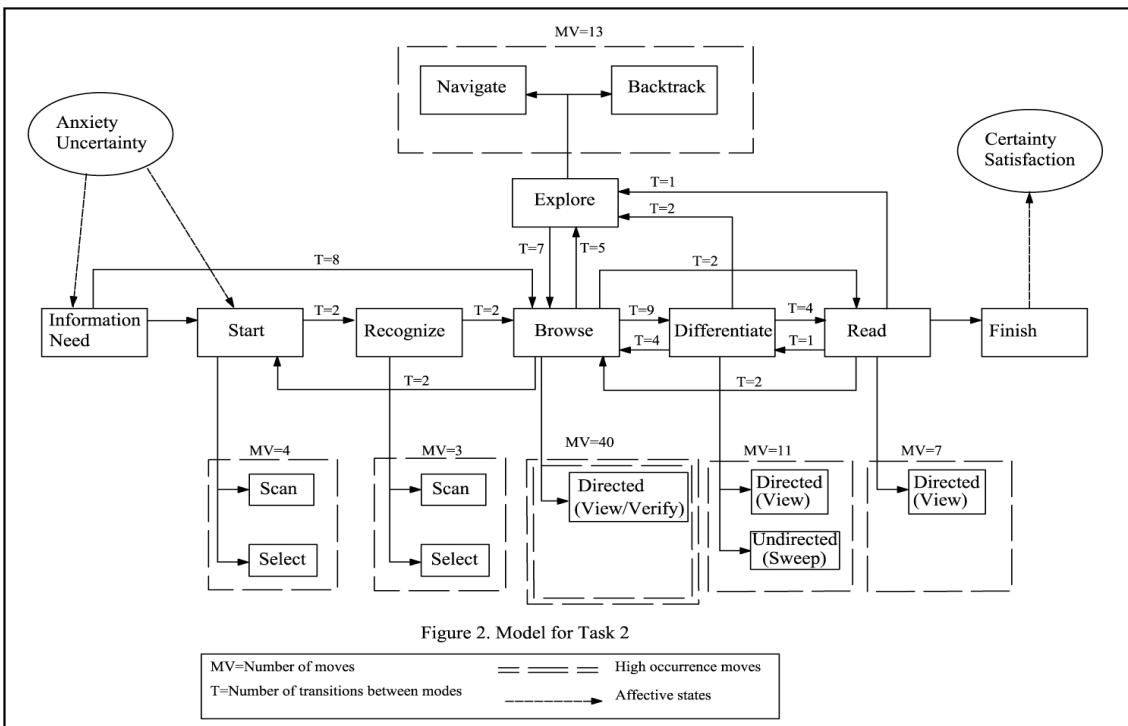


Figure 3. Model for Task 3

Figure 4. Model for task 4.
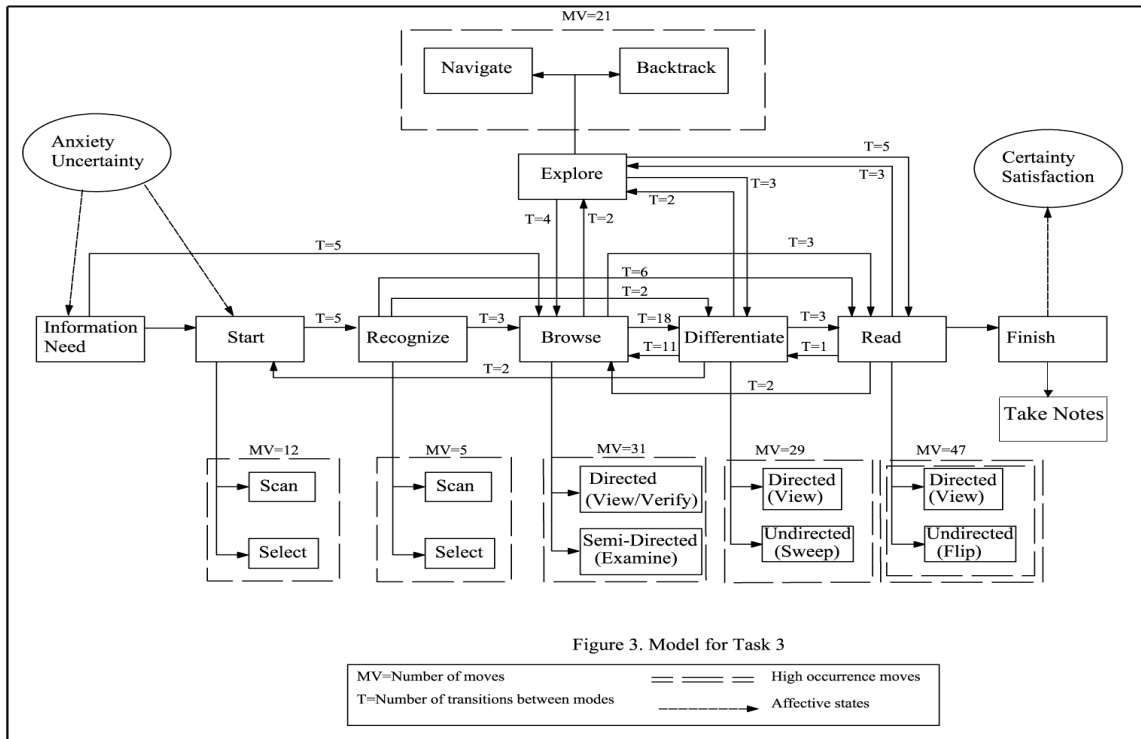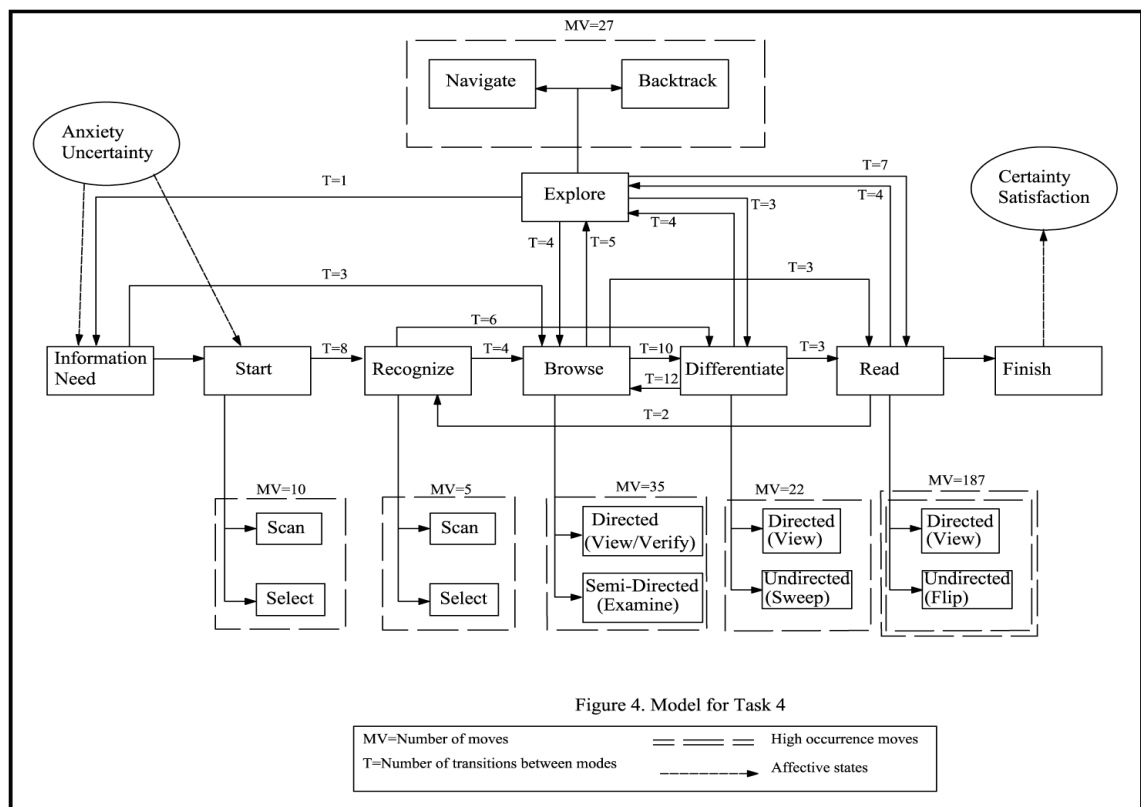


Figure 4. Model for Task 4

# World Class Learning and Literacy through School Libraries:
# Preparing Teacher Librarians for a Web 2.0 World

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*This paper presents the initial findings of a study that looked at students' experiences with and reactions to learning about Web 2.0 tools. The research questions guiding this study were: How effective is a graduate-level course in helping teachers and teacher-librarians learn about and integrate new Web 2.0 technologies? And, What are the knowledge, skills, and attributes that these teachers and teacher-librarians develop as a result of undertaking this inquiry? Participants were students enrolled in a graduate-level technology course offered through the Teacher-Librarianship by Distance Learning program at the University of Alberta. The major assignment for the course was an inquiry on Web 2.0 and students were required to write blog posts as they explored 10 new tools. The major source of data for this paper came from the first blog posts, which were analyzed and then categorized into four main themes: feelings, experiences, design of the blog, and challenges. Although this paper only reports on the initial stages of the study, early analysis of all the data indicates that this course has been a great success in helping teachers and teacher-librarians learn about and integrate new Web 2.0 technologies into their personal and professional lives.*

Keywords: Web 2.0, teacher-librarian education, technology


## Introduction

For teachers and teacher-librarians to be effective educators in the 21st century, they need to be familiar and comfortable with new technologies. Today's new technologies include Web 2.0 which are the new web-based tools that are readily available and used to communicate and collaborate with others. Blogs, wikis, photo and video sharing sites, and social networking (e.g. Facebook or MySpace) are all examples of Web 2.0 tools. As Solomon and Schrum (2007) state, "we can take advantage of the features that new tools offer and tap into students' natural affinity for these tools in order to create learning experiences that expand their worldview and enhance what they learn" (p. 24). Unlike our young students, who are comfortable and confident in these new online environments (see for example, Richardson, 2006; Rosenfeld & Loertscher, 2007), many teachers and parents are, according to Marc Prensky (2001), digital immigrants or "well-meaning

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adults who have to work at being comfortable with technology" (Solomon & Schrum, 2007, p. 26).

Preservice and inservice teachers and teacher-librarians work with children and young adults who are comfortable with these new tools.  As part of our graduate program in teacher-librarianship at the University of Alberta, we offer EDES 545, an information technology course that has focused, in the past, on traditional technologies such as Webquests, powerpoint, and Internet searching. Over the last year, it became obvious through course discussions and student assignments that we had a responsibility to better prepare teachers and teacher-librarians to learn the language and culture of the digital natives that are in our classrooms and schools.  We also began to realize that many of our students are interested in the possibilities that new technologies, including Web 2.0 tools, present for schools but are often reluctant to push themselves to learn enough about them to effectively integrate them into their practice.

As instructors, we realized this was an opportunity to redesign the course to provide graduate students with the opportunity to explore these Web 2.0 tools as part of a course. The Winter 2008 offering of EDES 545 introduced new assignments and course content that encouraged the students to inquire into Web 2.0 tools, seek new understandings about these tools, and reflect on how to use these technologies with students and teachers in their schools.  This revised version of EDES 545 included an inquiry component that required students to create their own individual blogs. Students then explored a new Web 2.0 tool (e.g. wikis, podcasts, social networking sites, etc.) each week and blogged about their experiences with that tool in their personal or professional lives.

Drawing on the existing literature related to Web 2.0 and technology integration in schools, this study was designed to investigate two primary questions: first, How effective is a graduate-level course in helping teachers and teacher-librarians learn about and integrate new Web 2.0 technologies?  Second, What are the knowledge, skills, and attributes that these teachers and teacher-librarians develop as a result of undertaking this inquiry?

## Theoretical Framework

The theoretical framework that underlies this work comes from Kuhlthau's (1993) six-stage information search process model.  The model incorporates "three realms of experience: the affective (feelings) the cognitive (thoughts) and the physical (actions) common to each stage" (Kuhlthau, 2007, para. 2).  This information search process model is seminal because it is the first time the affective domain played a role in research about information seeking and retrieval.  As Kuhlthau (2007) states in an overview of the information seeking process:

> these studies were among the first to investigate the affective aspects or feelings in the process of information seeking along with the cognitive and physical aspects.  Prior to the introduction of the ISP the affective dimension of information seeking had not been fully recognized in library and information

services and systems. One of the important findings of this research was the discovery of a sharp increase in uncertainty and decrease in confidence after a search had been initiated. A person "in the dip" commonly experienced uncertainty, confusion and anxiety until a focus or a personal perspective had been formed. (para. 12)

The process approach proposes a holistic view of information seeking and suggests that inquirers' feelings, thoughts, and actions must work together at each stage of the process. Based on an initial study, and confirmed by subsequent research, Kuhlthau suggested that the 6 stages of the information seeking process are:

- initiation (when a person first becomes aware of a lack of knowledge or understanding and feelings of uncertainty and apprehension are common);
- selection (when a general area, topic, or problem is identified and initial uncertainty often gives way to a brief sense of optimism and a readiness to begin the search);
- exploration (when inconsistent, incompatible information is encountered and uncertainty, confusion, and doubt frequently increase and people find themselves "in the dip" of confidence),
- formulation (when a focused perspective is formed and uncertainty diminishes as confidence begins to increase);
- collection (when information pertinent to the focused perspective is gathered and uncertainty subsides as interest and involvement deepens);
- and presentation (when the search is completed with a new understanding enabling the person to explain his or her learning to others or in someway put the learning to use) (Kuhlthau, 2007, para. 5).

A key finding in this initial study, and one that was confirmed in subsequent studies, has to do with the feelings experienced by the students in the study. According to Kuhlthau (1993), these students experienced a similar sequence of feelings:

students' feelings about themselves, the library, the task, and the topic evolved as their understanding of their topic deepened. The feelings that students described were predictable from Kelly's phases of construction. At the beginning of the search, evidence of uncertainty, confusion, and apprehension was isolated. Indications of increasing rather than decreasing uncertainty were noted as the search progressed. In the middle of the search evidence of a sense of clarity was documented as a focus was formed. With the focus, a sense of direction and confidence was common and that sense increased toward the end of the search. (p. 38)

Kuhlthau's research highlighted that "a dip in confidence is commonly experienced once an individual has initiated a search and begins to encounter conflicting and inconsistent information. A person "in the dip" is increasingly uncertain and confused until a focus is formed to provide a path for seeking meaning and criteria for judging relevance" (Kuhlthau, 2007, para. 27).

**Review of the Literature**

A review of the literature on how teachers are learning to use Web 2.0 in their classrooms found very little research on the topic, although more has been written from a professional or practical perspective. Oliver (2007) reports on a redesign of a graduate-level technology integration course and some student feedback is included in this article. Wright and Wilson (2007) also discuss the design of a master technology teacher program. Neither of these articles are research but focus on the professional and practical issues related to this kind of course. A study by Groth, Dunlap, & Kidd (2007) looked at preservice teachers, university instructors, and technology education. In this study, the technology was integrated into a curriculum course, rather than as a stand-alone technology course. The researchers found that modelling, support, and practical applications of technology "in an atmosphere that fostered exploration and reduced the fear of failure" (p. 381) were instrumental in changing instructional practice. University instructors must strive toward exemplory technology integration in preservice classes in order to prepare educators to effectively integrate technology into their classrooms.

Research in the area of technology integration in schools and by teachers is vast. Studies have provided a list of factors that can affect the use of technology in schools. Levin and Wadmany (2008), found that "teachers' training courses, workshops, and support session monitoring should be coordinated and sustained over time to empower teachers and show them what they need to know and what they can achieve" (p. 259). The researchers also found that training by authorities is only one part of a professional development plan. There is a need for formal training at early stages; however,

> at subsequent stages in their professional growth, they will require educational opportunities that facilitate collaboration with colleagues on authentic routine classroom issues as well as personal and self-inquiry accompanied by mentorship, sometimes in addition to, but mainly instead of, authoritative training. (p. 259)

Further research on professional development for technology integration highlights other factors including convenient access to computers, appropriate infrastructure, thoughtful planning for the use of technology and exposing teachers to using technology as a productivity tool (Hope, 1998; Smerdon et al., 2000). Leadership and a strong sense of school needs are also key to the successful integration of technology (Hardy, 1998). Sherry, Billig, Tavalin, and Gibson (2000) highlight the importance of guidance from specialist mentors and online resources while Zhao & Frank (2003) acknowledge the challenge of the changing nature of the technology itself. Challenges may also include teacher burnout, lack of time to learn and explore new technologies, and the way staff development is offered and supported in schools and school districts (Weikart & Marrapodi, 1999).

**Method**

The Teacher-Librarianship by Distance Learning (TLDL) program at the University of Alberta has been providing online educational opportunities for teachers and teacher-librarians for ten years. Students in the program can enroll in either a Master of Education in Teacher-Librarianship or a Diploma in Teacher-Librarianship. As an

online program technology is woven into the fabric of each course, with students completing all of their course work and assignments online. Students are given the opportunity to specifically explore technology in an educational context in EDES 545, Information Technologies for Learning. This is a required course for all students and provides them with the background and understandings needed to effectively integrate technology into their classrooms and libraries.

After several iterations of EDES 545 in the old format, the instructors determined that a redesign of the course was necessary to better reflect the new technologies available to students and teachers in schools. The new version of the course was designed so that students could build on their strengths and so that each inquiry was a personal reflection of their individual learning journeys. The major assignment for EDES 545 in Winter 2008 was an inquiry project that required students to investigate 10 Web 2.0 tools (e.g. blogs, wikis, podcasts, etc.). They then wrote a series of blog entries reflecting on their learning and exploring how these technologies could be used in their practice.

Thirteen students were registered to take the course. Permission was received from eleven of those students to use their blogs as data for this study. Throughout the term, these students' blogs were saved and printed for future analysis. At the end of the term the researchers then read all of the blog posts recursively, looking for common themes and trends that emerged within and across entries (Bogdan & Biklen, 1992; Miles & Huberman, 1998). The data are presented using representative quotes from the blogs to support the patterns and themes. We had a wealth of data from all of these blogs and for the purposes of this paper have chosen to narrow our focus and report findings only based on the first blog posting written by each participant. For these introductory posts students were asked to describe the process of setting up their blog and then comment on blogging and its implications for teaching and learning.

## Findings

The data from the first blog posts that were used as the main source of data for this paper have been categorized into four main themes: feelings, experiences, design of the blog, and challenges which provide some insight into these questions.

### Feelings

In these first posts, students expressed a wide range of emotions and feelings from being scared and intimidated to feeling empowered and having fun. On the one hand students expressed some trepidation about the assignment and the course in general. For example, one student stated that "I am excited to learn about how to use the various technologies out there, but wow, intimidating!" while another stated that "Yikes, was I scared getting this process started…I was very nervous when I first got this assignment but am now feeling more relaxed as I write my first posting." Similarly, a student likened getting involved in Web 2.0 technologies to herding cats and went on to state that "diving

into the information on technology has been a little like holding a water tumbler under the faucet but getting a Niagaran roar when the tap is turned on."

On the other hand, students noted that the process of setting up their blogs was easier than they had expected. One student noted that, after setting up her blog, "all is well and I have survived. Houston, we have lift off." Another student, who was at first worried about the assignment, stated that "to my surprise, and great relief, it took less than 5 minutes…I am excited to have a blog and explore Web 2.0 tools to the fullest." Another student blogger stated that there was going to be "lots of fun and excitement in exploring these Web 2.0 tools and seeing how they fit in the schools and libraries." Finally, students commented that in spite of their initial concerns about the course and the Web 2.0 inquiry assignment, "learning by doing is (still) pedagogically sound" and that it is "kind of empowering to get into this stuff."

A final example of some students' worry and anxiety about the assignment comes from a student who tries to explain her reaction to blogs and blogging. She writes:

> I don't like them [blogs]. I hate the way everyone has one and thinks the world wants to hear about the minutiae of their lives. I hate the way they clutter up search engines. I hate the way they are hard to keep up with (looking forward to experimenting with RSS on that front…). But now, exactly 4 minutes after creating this one, I am starting to understand…it is just so easy. Why not have a blog? If no one reads it, so what, then it's a diary I can't lose the lock for, and if lots of people read it, hooray, instant and fleeting celebrity…ok, ok, my hatred of this format of communication is easing to a simmer rather than a full boil…Intimidating factor currently at: 3 out of 5.

The same student, in a subsequent post, continues by writing that

> I've been hemming and hawing since my last post, trying to temper my disdain for this new media. After all, I'm too young to be so curmudgeonly!...I've long thought that all teachers should have a website to post class activities, policies, homework, etc. for parents and students…Blogging might be the tool to help them stay better connected to communities without asking too much more of their time.

*Experiences*

Findings from the first blog posts of this inquiry assignment reveal another wide range of experiences that these students brought to the course. One student suggested that she is a "self-confessed Luddite" while many of the students also noted that they had never blogged themselves. Some students had read other people's blogs and a few mentioned that they had previously commented on blogs. One student noted that she had "only read a few blogs, usually prompted by my friends who are teaching abroad and have found that blogging is a great way for them to let everyone know how they are doing without having to send out endless emails." Another student indicated that she originally thought that blogs were "just online personal journals for others to comment on." Further reading and reflection gave this student new insight into the purpose and potential for blogs. The student from the previous section, who initially responded so

negatively to the idea of blogs and blogging wrote that "it just dawned on me that I regularly visit a parenting blog that I like to believe is a force for positive change!"

Many of the students in EDES 545 commented that support from family, friends, and colleagues was instrumental in making their initial experiences with this assignment more positive. For example, "I chose my blog publisher on the recommendation of one of my daughters." Another student, who had recently purchased a new computer for the express purpose of taking this course, noted that she "took it, in the box, to the home of my first born for my first lesson on how to use it. Who knew he had such highly developed teaching skills? He patiently and articulately led me through the aforementioned truckload of new stuff. He intuitively knew how to limit the amount of time we spent going over it all (e.g. we stopped before my head exploded)."

Finally, most of the student bloggers in this course commented on how easy it was to set up their blogs and that this ease of use was not only important, but also surprising. The ease of use of many of the Web 2.0 tools the students explored early in their inquiries (blog publishing tools, blog aggregators, and photo sharing sites) made their beginning experiences more positive than many of them had originally anticipated. For example, one student notes that when setting up her blog, she was "immediately sucked in by the sheer ease of the place. Maybe the others are easier still. I'll never know." Another student referred to the advantages of using the Google suite of tools for all his Web 2.0 needs. He writes that "I'm using Blogger because it's part of the 'package' of tools that Google offers…I signed up for Google Reader and I was amazed. Instead of visiting all the websites that I normally do, they are 'visiting' me by sending me those RSS feeds."

*Design of the Blog*

Many students in the course commented on some of the design issues and choices they faced when originally setting up their blogs. These bloggers were aware of the fact that the design choices they made were important because their blogs were ultimately representing them. One student noted that he was "quite stricken by the impact of everyone's visual choices. For me, the diversity provides much more of a connection to each of my classmates." Another student compared these design choices to renovating her home but, she wrote, "since I can't reno my house just yet, I might as well reno my personal cyber-space." Design choices and the visual appearance of the individual blogs were important considerations for these novice bloggers. Students also commented that choosing a name for their blog was an equally difficult task. For example, one student wrote that choosing a name for her blog was the most stressful part of the early stages of this inquiry.

*Challenges*

The final broad theme from these introductory blog posts was challenges. Students commented on a number of challenges that they faced as new bloggers. These

challenges can be further broken down into issues related to the technology, finding time and space to blog, and personal vs. professional applications.

First, students faced challenges related to the technology. Although many of the students expressed relief about how easy the blogs were to set up, they experienced some frustration or anxiety about the use of all of these new tools and, in some cases, which of the many choices to actually use. For example, one student noted that her immediate challenge was "figuring out how to get RSS feeds to work for me, and [then] deciding which ones to subscribe to!" Luckily, the same student discovered that RSS "is like having subscriptions to your favourite magazines—it delivers the latest edition to you." Another student commented that "given all the different new Web 2.0 technologies I am learning about, keeping them organized is a priority." Other students found themselves puzzled about the various options and services available to them as they set up their blogs, which meant that in the early weeks of the inquiry they did not have the opportunity to get "to the educational possibilities that blog services open up to us."

Feeling overwhelmed by the technology and the wide range of choices available to them (e.g. Blogger vs. Wordpress) also contributed to the information overload that some students alluded to in their initial posts. As one student wrote, the volume of information at first left her feeling "deluged with information and 'running madly off in all directions.'" Similarly, other students remarked on the challenge of finding the space and place to blog. For example, one person wrote:

> As I jump into the world of technology I am competing for time at the computer with my teenage daughter. She has a project due tomorrow—I have a blog to create tonight! Solution, I am 'cooking up a blog' on the family room computer with *two and a half men* (sitcom) in the background, while my daughter writes in peace and quiet upstairs at my computer. Oh well, good training for a high school librarian. I spend my days, at present, in the middle of a busy library, surrounded by stimulating, boisterous adolescents. There is a **lot** of noise and most days, **lots** of learning. Learning to think, compose, and produce coherent prose in the midst of chaos is a life skill required for 21st century living.

Finding time and space on a regular basis for writing blog posts was a challenge for busy teachers, especially when they are not maintaining a blog as part of a course assignment. As one student noted, blogs are an easy way for teachers to stay connected to parents and their students and because blogs are easily maintained and updated without knowing html code or having exceptional technical skills, teachers might be able to embrace this new tool. This student continued by stating: "We all know (OR SHOULD, DARN IT!) that teachers are very busy folks who really don't need more put on their plates. Blogging might be the tool to help them stay better connected to communities without asking too much more of their time."

A final challenge faced by students in this course was separating the personal and professional applications of Web 2.0 tools, particularly blogs and blogging. Issues related to privacy were raised by a number of people, especially when considering how to use blogging in the classroom. One student noted that "I like that Blogger is free, easy to use and has some level of privacy so I can eventually use it as a class blog." The same

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student raised questions related to student privacy when using blogs, or other Web 2.0 tools, and wondered "about concerns parents might have about their child's photos on the internet." These privacy issues were a particular concern when considering how to use these tools with students in schools, but did not seem to be as much of a concern for these students' personal blogs.

## Discussion

The findings reported on this paper represent only a small part of this study. The first blog postings written by students in EDES 545 highlighted some of the feelings, experiences, design questions, and challenges facing these students in the early stages of their inquiry on Web 2.0 tools.

Many of the feelings expressed by students in their introductory posts reflect the the initiation and selection stages described in Kuhlthau's (1993; 2007) information search process. She writes that the earliest stage of an inquiry, the initiation stage, is when "a person first becomes aware of a lack of knowledge or understanding and feelings of uncertainty and apprehension are common" (Kuhlthau, 2007, para. 5). The second phase of an inquiry, the selection stage, is when a person's "initial uncertainty often gives way to a brief sense of optimism and a readiness to begin the search" (Kuhlthau, 2007, para. 5). These two stages of inquiry are highlighted throughout the students' introductory blog posts. Some students wrote about their fear and the intimidation they felt as they began this inquiry, while one person expressed her outright "hatred" for blogs and blogging. Many of these same students, as they worked through the initial stages of the assignment, came to be more open to the assignment and expressed optimism about both the technology and the assignment. Students also expressed their relief at the ease with which they were able to set up their blogs and some even described blogging as fun or exciting. The range of emotions written about in the initial blog postings by students in EDES 545 are reflective of Kuhlthau's information search process model and emphasize the importance of considering the affective domain in all stages of an inquiry. Further analysis of the remainder of the blog postings from this course will need to be completed to see how students experienced the later stages of the inquiry.

As students expressed these range of emotions, they also recognized the importance of having some kind support system in place to guide them through these new experiences. In particular, students who wrote about their lack of technical experience or confidence also emphasized how important it was to have someone to call on when they were feeling unsure or anxious about the inquiry. Many participants acknowledged the important role their own children played in this process. For example, one student's decision to use a blogging program was based on her daughter's recommendation, while another student asked her son for help with setting up her new computer. Based on these students' experiences, it appears that teachers, teacher-librarians, and others who are new to Web 2.0 technologies need the assistance and support of more experienced computer users who are able to scaffold this learning in a non-threatening and low-stress way. Teachers and teacher-librarians might find this support with their own children, with

colleagues, or perhaps even with students in their schools who would, in many cases, be happy to help their teachers navigate through some of these new technologies. These findings support the work of Levin and Wadmany (2008) and the study of preservice teachers done by Groth, Dunlap and Kidd (2007).

Even without a formal support system in place to help them learn and use Web 2.0 tools, the students in this course also discovered that with limited experiences or ack of perceived skill, the tools they initially explored (e.g. blogs and blog aggregators) were easy to set up and use. For many students in the course, being 'forced' to explore these tools was a push that many of them needed and might not have taken otherwise. As one student wrote,

> setting up my blog has been a bold step for me…And yet, here I am! Like a smoker who has kicked the habit and becomes the staunchest and most outspoken anti-smoking lobbyists EVER, I'll probably end up as a technomaniac! (As well I should, given my position as an educator, and considering the powerful roles that technology can fulfill in current classrooms).

Even early in the course students in EDES 545 were able to see the personal and professional applications of these Web 2.0 tools, a finding that mirrors the work of Smerdon et al.(2000).

By experiencing blogs and blogging first hand and seeing how easy they are to create and use, these teachers and teacher-librarians were then able to see the potential uses for this technology in their own schools, classrooms, and libraries. For example, one student wrote that she chose Blogger to create her own blog because it is "free, easy to use and has some level of privacy so I can eventually use it as a class blog". The same student commented that "blogs can be used as a place for collaborative learning on projects. Not only can each student in the group contribute to the blog, experts from the global community can also contribute, deeply enhancing the curriculum." Without the experience of playing with blogs and blogging about their experiences for the purposes of this course, some of these teachers and teacher-librarians might not have begun to consider how these technologies are easily useful and applicable to their professional lives. From the first weeks of the course, we saw the students become empowered and eager to explore more Web 2.0 tools. Being a part of the edublogosphere was particularly empowering as students began receiving comments, questions, and feedback not only from their peers in the course, but also from leaders in educational technology world. For example, one student received a comment on her blog from Will Richardson, author of *Blogs, Wikis, Podcasts and Other Powerful Web Tools for Classrooms,* after writing a post about reading the book. As we had hoped, students found success in this early assignment and this motivated and engaged them to continue their explorations of other Web 2.0 tools.

## Implications and Conclusions

> To be a truly new school, it has to model new ways of teaching and learning, and of using new tools. It has to have at its core an interest in helping its students to be successful in the 21st century—in work and in play, and in all

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other aspects of living in a world that promises only change as the norm (Solomon & Schrum, 2007, p. 3).

This quote does not only apply to children in schools, it also applies to their teachers and teacher-librarians. Based on the analysis of the initial blog postings of students in EDES 545, we found that it is important to

- help teachers and teacher-librarians work and play to be successful in a web 2.0 world.
- structure the course so that students are required to explore a variety of Web 2.0 tools.
- design the course so that there is early success. Blogging was a good place to start because the teachers and teacher-librarians could immediately see personal and professional opportunities and applications.
- have a strong understanding of Kuhlthau's Information Search Process so that you can support and validate students' emotions and concerns.
- honour the 'other' experts in students' lives (e.g. their own children, students in their own schools, friends, etc.) and encourage them to seek out other experts when they need support.
- acknowledge that no one can be a Web 2.0 expert because technology is changing so quickly.
- develop a learning community where students feel comfortable taking risks and being critical of the technology.
- have another instructor to work with on redesigning a course of this nature.

This paper presents the initial findings of a study that looked at students' experiences with and reactions to learning about Web 2.0 tools. Although this paper only reports on the initial stages of the study, early analysis of all the data indicates that the redesign of this course has been a great success. Positive feedback from students in their final blog postings and excellent course evaluations confirm this.

We hope that this paper will contribute to an ongoing discussion about developing quality graduate-level courses that engage and motivate students to want to learn more new technologies. We are hopeful that the findings from the rest of this study will also add to the body of research on professional development, integration of technology into schools, and teacher and teacher-librarian education. Based on the findings from this study we are making further changes to the course and will follow another group of students in the Fall of 2008.

Children and young adults have already discovered the power of Web 2.0 and are using the social nature of these tools to interact and collaborate with one another. The new version of EDES 545 was exciting and engaging for these graduate-level students for many of the same reasons. Their sense of success and achievement was surprising and exciting for both the students and the instructors. How exciting it was to see "digital immigrants" working so hard and enthusiastically to learn the language spoken by digital natives. As one of our students wrote, "I am looking forward to the day when I can say that I speak English, French, and Web 2.0."

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

**Primary four students' development of reading ability through inquiry-based learning projects**

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## Abstract

This paper is part of a bigger study that investigates a collaborative instructional approach involving three kinds of teachers (Information Technology, General Studies, and Chinese) and the school librarian in guiding primary 4 (P4) students through two phases of inquiry-based learning (IBL) projects, each lasting for 2-3 months in 2006-2007.

This collaborative approach in guiding students through the IBL projects has proven to be effective. Not only did the participating students significantly enhance their reading abilities, but they obtained 37.47% higher grades in their General Studies projects compared with their peers in the previous year (Chu, Chow, Tse, & Kuhlthau, 2008a).

Using PIRLS, this paper examines the reading tests and surveys completed by the students before and after their IBL projects. Using another perceptual survey, students, teachers and parents' opinions regarding improvement in student reading ability after the completion of the first IBL project was also investigated. This study may shed light on the benefits and possibilities of an integrative instructional approach in improving student reading and language abilities.

## 1. Introduction

The effectiveness of inquiry based learning (IBL) has been the subject of numerous studies, and the general acceptance of its value has led the Hong Kong Special Administrative Region (HKSAR) Education Bureau to include IBL in its policy changes for primary education. However, few local schools have successfully integrated an IBL approach within their curricula. In view of this, further studies on implementation of effective IBL approach in local schools and its impact on students are warranted.

This paper is part of a larger study investigating a collaborative instructional approach; four kinds of teaching staff[1] provided various kinds of support to Primary Four[2] (P4) students in a local Hong Kong school in the completion of their IBL projects. About 150 students completed two General Studies' group projects, each lasting 2-3 months, from December 2006 to June 2007. The main theme for the first project was "The Earth" and the second "History of Hong Kong and Mainland China". For each theme, students chose their own sub-area to work on.

The teaching staff involved played different roles in guiding students through the projects. The IT teachers helped enhance students' IT literacy (e.g. skills of using Microsoft Excel and PowerPoint), the General Studies teachers focused on teaching research skills (e.g. formulating essential questions and organizing data gathered for the projects), and the Chinese teachers helped students develop the necessary reading and writing abilities for the completion of their projects. Meanwhile, the school librarian assisted in sharpening students' information literacy skills (e.g. doing searches on a news database and in the public library catalog). Figure 1 presents the model of this IBL approach and the various dimensions measured for improvement.

This paper reports on student improvement in reading abilities as a result of the inquiry-based learning projects. Moreover, through working on research topics of their own interest, students are motivated to read more relevant materials. It is therefore suggested that the IBL approach would also bring positive changes to student attitudes towards reading. The possible relationship between reading ability and reading attitude will be examined in the later part of this paper.

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[1] The school librarian and teachers of General Studies, Chinese and Information Technology.

[2] Primary four in this system is equivalent to the fourth grade in the United States, with students aged nine on average.

**Figure 1. The inquiry-based learning model adopted for the General Studies group projects**
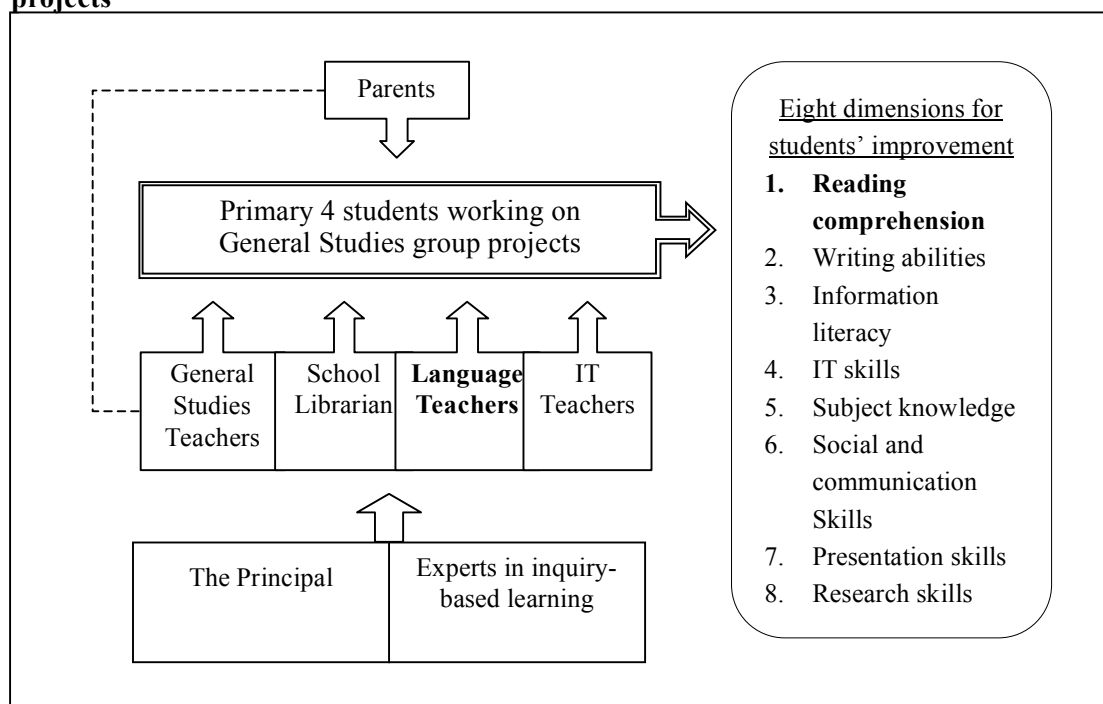


## 2. Literature review

The importance of an IBL approach, as noted by the Education Bureau of the Hong Kong SAR Government (2002), is that it enables students to "develop generic skills and nurture inquiring attitudes or habits of mind that will enable students to continue the quest for knowledge throughout life," and "take a proactive role in the learning process to construct knowledge." In other words, an IBL approach encourages students to focus their study on topics of their own interest and formulation. This is an important characteristic, as research clearly notes that students perform better—whether in research, subject knowledge or writing—when they are working on subjects that interest them and which they can relate to (Chu, Tang, Chow & Tse, 2007; Chu, Chow, Tse & Kuhlthau, 2008a; Frank, Lavy & Elata, 2003; LaMedica, 1995).

The improvement of reading ability requires the effective mastery of cognitive reading skills and strategies. According to Lau and Chan (2003), students with good reading abilities possess well-developed cognitive skills in reading comprehension. Moreover, proficient readers are better able to apply sophisticated reading strategies, analyze textual organization and possess more metacognitive knowledge in reading

than less proficient readers (Yau, 2005).

Students with poor language ability however, will find it difficult to develop an intrinsic interest in reading (Lau and Chan, 2003). If students are disinterested in reading, it is more difficult for them to develop their reading ability. Thus, learning environments and curricula should be constructed in a way that will help students build up their reading interest and strategies. IBL is beneficial to students' development in relevant skills in understanding reading materials, such as the process of exploring, selecting, collecting, analyzing, and comprehending information sources (Kuhlthau, 1997). Hence, IBL could be helpful in arousing students' interests in reading and this in turn would enhance their reading abilities.

However, there seems to be a lack of literature that links students' improvement in reading ability to influences from a collaborative IBL approach. This article attempts to fill the gap by relating students', teachers' and parents' perceptions of students' improvement in reading ability to IBL. It also seeks to associate students' improvement in reading ability to the IBL approach adopted in this study.

On the other hand, the IBL approach provides opportunities for students to discuss specific topics to generate more knowledge, as well as stimulating them to read extensively outside the classroom. This is important to the development of students' literacy skills since it encourages and motivates students to read more (McKool, 2007). Hence, the potential influence of IBL approach on students' reading attitude and interests would also be investigated in this study.

## 3. Methodology

The main research questions of this study include:
- What are the key elements of reading ability?
- Is the IBL approach taken in the study effective in helping students achieve a higher level of reading ability?
- Would the IBL approach bring changes to students' attitude towards reading?

### Instructional design

This case study examined about 140 P4 students from a local Hong Kong primary school. The study design involved two phases and students were to complete one IBL project on a topic approved by their General Studies teachers in each phase together with support from their Chinese Language teachers, IT teacher and school librarian.

Students had to decide their research topics according to the theme set for each phase.

The themes are 'The Earth' and 'History of Hong Kong and Mainland China' respectively. In order to complete the IBL projects, students had to collect materials relating to their own topics. Students were encouraged to explore different sources including books from school and public libraries, newspapers, magazines and online web materials. Students were introduced to the database WiseNews as well.

The focus of this article will be on the assignments created by the Language (Chinese) teachers and the principal investigator of the study, aimed at equipping students with proficient reading skills. In phase 1, a maximum of seven in-class exercises and seven take-home assignments were assigned to the student participants. In phase 2, a maximum of six in-class exercises and seven take-home assignments were assigned. For each in-class exercise, students were required to read an article related to the main theme of the phase and underline the key sentences in the article, followed by writing a summary of the article and their opinions in 100-150 words. For each take-home assignment, students were asked to read at least three pieces of writing (e.g., articles, books) related to the project theme, and then write a research journal entry of 150-200 words about their reading material. The total number of assignments that the researchers were able to collect for this study in phases 1 and 2 are shown in Table 1.

Table 1. In-class exercises and homework collected for each class in the two phases

|  | In-Class Exercise Phase 1 | In-Class Exercise Phase 2 | Homework Phase 1 | Homework Phase 2 |
|---|---|---|---|---|
| Class E[3] | 37 | 37 | 37 | 35 |
| Class F | 36 | 36 | 36 | 36 |
| Class G[4] | 9 | 8 | 0 | 0 |
| Class H | 25 | 24 | 21 | 25 |
| Total | 107 | 105 | 94 | 96 |

The school librarian, being the information provider, also played an important role in the development of students' reading ability. Through the school librarian, students could get access to all kind of resources, such as books (e.g. a block loan of 200 books were borrowed from the public libraries), newspaper clips and webpage links, related to the main theme. Besides, the school librarian held training sessions to equip students with the necessary information literacy skills for finding relevant resources from the Web and from the WiseNews database.

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[3] To protect the privacy of the respondents, the class names have been changed.

[4] Some teachers gave the assignments back to their students at the end of the term and it was difficult to get them back for the study. Hence, assignments available for the study in some classes were lower than other classes.

*Evaluation methods*

The students took the reading test from Progress in International Reading Literacy Study (PIRLS)[5] before and after the completion of the two IBL projects. Their performances before and after working on the two projects would be recorded and compared. Besides, students also filled in the PIRLS's survey on their reading habits, attitudes, and interests. This paper focuses on the changes in students' reading ability. Some discussion would be based on findings from the survey on their reading attitude in the later part of this paper.

The test on students' reading ability focused on two aspects: (i) process of reading comprehension, and (ii) reading and understanding different reading materials. Students are required to employ various reading processes, include focus on specific aspects of text, make simple and more complex inferences, interpret and integrate ideas and information, and examine and evaluate text features. Two types of reading materials were included in the test battery: literary materials such as stories or fables in which pupils read for enjoyment, and informational materials such as scientific descriptions or manuals which pupils had to read for information (Mullis, Kennedy, Martin & Sainsbury, 2006). Because both types of reading experiences (literary and informational) are important for the reading development of pupils, the reading test battery consisted of one literary passage and one informational passage. Pupils had 40 minutes to answer questions on the first passage, rested for 10 minutes then took another 40 minutes on the second passage of text. Total test scores for each pupil were estimated using the Item Response Theory (IRT) Model (Lord, 1980) based on the responses of each pupil to the test items. The computer program PARSCALE 4 (Muraki & Bock, 2003) was used in the estimation of the IRT scores of pupils. The IRT scores were scaled to a mean of 500 (Martin, Mullis & Kennedy, 2003). SPSS was used to conduct parametric tests on the data.

Besides, students, teachers and parents were surveyed with another questionnaire between phase 1 and phase 2 after students had completed their first project. By doing so, the effectiveness of the IBL approach in phase 1 could be evaluated and changes could be made when necessary. This survey would also be a supplement for PIRLS since teachers and parents were not surveyed with PIRLS in this study.

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[5] PIRLS is a world-wide assessment and research project aims to measure trends in children's reading literacy achievement and collect information on reading-related policy and practices (Mullis, 2008).

## 4. Findings and Discussion

The study collected and analyzed data both quantitatively and qualitatively. The findings of the perceptual survey provided an overview of improvement in students' reading ability from three different perspectives of teachers, parents and students. Key elements of reading ability would be discussed. The results from the PIRLS reading tests were analyzed to examine the students' improvement in reading brought by the IBL approach. The results from the PIRLS survey were also analyzed to examine the effect of IBL approach on students' attitude towards reading and the possible relationship between reading attitude and reading ability.

**Teachers, parents and students' opinion on the effectiveness of IBL projects**

Teachers, parents and students themselves, were all of the opinion that there was improvement in students' reading ability via the inquiry-based projects (Figure 2). Teachers saw the most perceived improvement in their students ($3.9 \pm 0.2$), followed by students themselves ($3.5 \pm 0.2$). Parents, conversely, perceived the lowest improvement in their children's abilities ($3.3 \pm 0.4$).

Figure 2. Teachers (n=10), parents (n=25) and students' (n=132) perceptions of reading ability improvement through the inquiry-based projects[6]
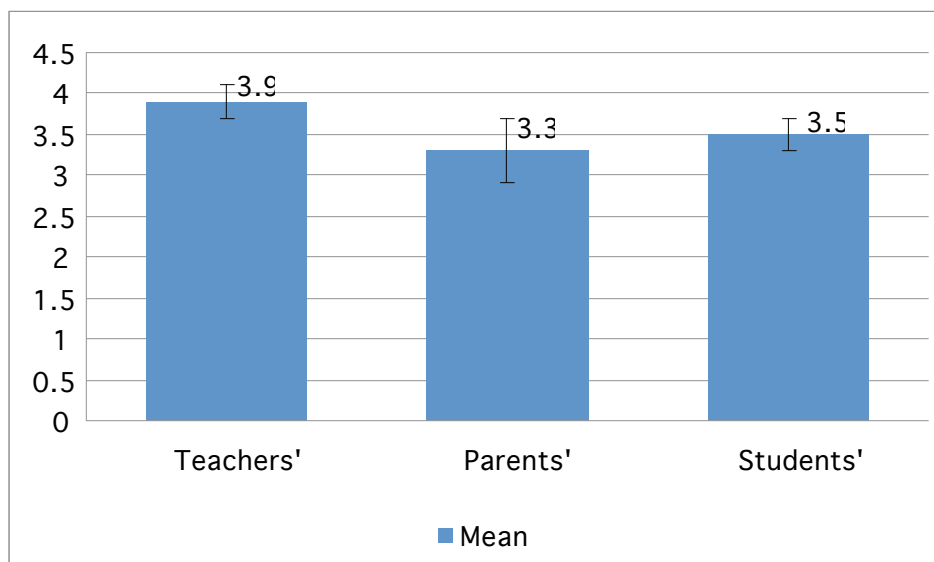


Note: The three parties were answering the question "Did the IBL project help you (the student) improve in reading ability?" according to a scale of 1-5, with 1 as 'not helpful' and 5 as 'most helpful'.

During interviews, parents, teachers and students emphasized progress in three elements of reading ability–better comprehension, faster reading and richer

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[6] The survey was conducted shortly after the completion of the first IBL project.

vocabulary (Figure 3). This suggests that the assigned exercises for the IBL projects were able to help students improve their reading ability in these three areas.
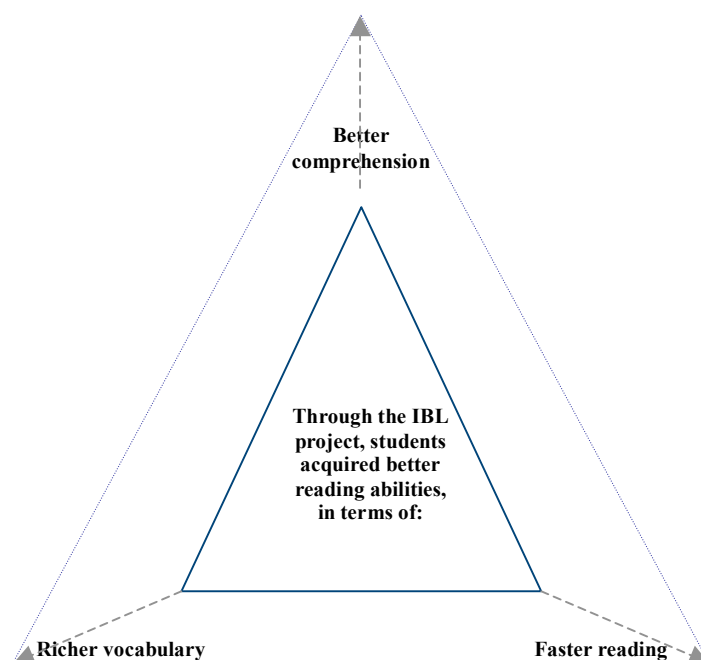


Figure 3. Three key elements of reading ability

In evaluating the perceived improvement in reading ability, one student commented, "We now know how to identify the main ideas of a passage or an article, and know how to select relevant information when much information is given." This reflects their acknowledgement of more advanced comprehension skills through the IBL projects.

A parent expressed perceived improvement in her child's ability to read faster thus: "She was very diligent during the information searching process. Her reading speed and ability to grasp the main points (from articles) have been enhanced too."

Another parent noted his child's gains in vocabulary and language usage through the IBL projects. He said, "My child now knows more vocabulary than before…his skills in using appropriate vocabulary in his writing has also improved."

A teacher commented that "Many (students) said they could read faster than before. Another thing is that students learnt how to figure out the main points (when reading) in Chinese lessons."

Besides, another teacher noted that "There was an obvious improvement in reading ability in Phase 2. Phase 2's material is more interesting." The IBL projects aroused student' interest in reading and this in turn enhanced their overall reading ability.

**Students' performance in PIRLS tests before and after the IBL projects**

As predicted, students' reading performance improved through participation in the IBL projects. Table 2 presents a comparison of the pre-and post-projects PIRLS test performance of the students. The effect sizes reveal that students' improvement in reading ability during the IBL projects period was substantial. Care was taken to ensure an unbiased effect estimate (c.f. Cohen, 1977; Curlette, 1987; Glass et al., 1981; Hattie, 1992; Hedges, 1981). The effect sizes of different parts of the test vary between 0.41 and 0.77, which imply a medium to large effect (see Table 2). The calculation of effect sizes of different parts of the test employed in the experiment is based on the following formula:

$$\frac{\text{Mean of post-test} - \text{mean of pre-test}}{\text{SD of pre-test}}$$

Table 2. Comparing students' pre-test and post-test reading performance (n of pre-test = 140; n of post-test = 142)

| Scores | Pre-test | | Post-test | | Effect size |
|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | |
| Overall | 538.53 | 40.18 | 569.64 | 44.96 | 0.77 |
| Literary* | 537.19 | 47.27 | 556.73 | 48.26 | 0.41 |
| Informational** | 540.68 | 42.19 | 562.28 | 42.69 | 0.51 |

Note: * Reading for enjoyment; ** Reading to acquire and use information (Mullis, Kennedy, Martin & Sainsbury, 2006). Effect size: 0.2=Small, 0.5=Medium, 0.8=Large (Cohen, 1977).

**Students' attitude toward reading and their performance in PIRLS tests before and after the IBL projects**

The PIRLS questionnaire investigates students' attitude toward reading (SATR), and their reading self-concept (SRSC). The SATR test asks the students how well they agree with the following statements: (i) I read only if I have to, (ii) I like talking about books with others, (iii) I like people to give me a book as present, (iv) I think reading is boring, (v) I need to read well for my future, and (vi) I enjoy reading[7]. Students responded to the statements on a four-point Likert-scale: (1) disagree a lot, (2)

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[7] Question i and iv are in reverse coding.

disagree a little, (3) agree a little, and (4) agree a lot. Students' responses to the above statements are then computed as the scale of "Students' Attitudes Toward Reading (SATR)".

As shown in Table 3, the proportion of students in the low, medium and high level of SATR did not change much in the pre-test and post-test. More substantial improvement in overall reading performance were observed in students with medium level (effect size=0.47) and high level (effect size=0.48) of SATR than students with low level (effect size=0.19) of SATR. One interesting finding is that in the pre-test, students with low SATR (*M*=543.92) outperformed other students with medium (*M*=518.77) and high SATR (*M*=508.05) in the reading test. However, in the post-test, students with low SATR (*M*=549.76) were taken over by other students with medium (*M*=570.14) and high SATR (*M*=571.22) in the reading test. This implies that in general, students with more positive attitude towards reading could benefit more from the IBL projects and attain more improvement.

Closer examination on the patterns of student improvement in reading performance shows differences in the two aspects of reading tested by PIRLS (i.e. literacy and informational). For literacy reading performance, students with low SATR did not show any improvement (effect size=-0.06) while students with medium and high SATR did (effect size=0.48, 0.40 respectively). This might indicate that the IBL approach, which focuses on informational reading, could also improve literary reading performance in students with medium and high SATR, but is insufficient in improving the literary reading performance of students with low SATR. For information reading performance, it is noteworthy that quite a substantial improvement was also observed in students with low SATR (effect size=0.32). This indicated that the IBL approach focusing on informational reading is effective in enhancing informational reading performance, even for students with less positive reading attitudes.

Table 3. Students' attitude toward reading and their performance in PIRLS tests
before and after the IBL projects (N = 150)

| Scale of SATR | | Pre-test reading scores | | | Post-test reading scores | | |
|---|---|---|---|---|---|---|---|
| | | Overall | Literary | Informational | Overall | Literary | Informational |
| Low SATR | Mean | 543.92 | 537.80 | 537.17 | 549.76 | 535.59 | 544.85 |
| | S. D. | 30.54 | 35.53 | 23.88 | 56.95 | 49.36 | 55.15 |
| | N | 9 | 8 | 8 | 11 | 9 | 9 |
| Effect size | | | | | 0.19 | -0.06 | 0.32 |
| Medium SATR | Mean | 518.77 | 530.69 | 546.52 | 570.14 | 552.97 | 566.51 |
| | S. D. | 109.66 | 46.16 | 51 | 46.04 | 55.82 | 36.33 |
| | N | 54 | 51 | 41 | 49 | 49 | 49 |
| Effect size | | | | | 0.47 | 0.48 | 0.39 |
| High SATR | Mean | 508.05 | 541.60 | 558.55 | 571.22 | 560.90 | 561.50 |
| | S. D. | 132.68 | 48.66 | 119.00 | 43.19 | 43.11 | 44.92 |
| | N | 87 | 78 | 78 | 83 | 83 | 83 |
| Effect size | | | | | 0.48 | 0.40 | 0.02 |

Note:

- Effect size quantifies and shows the size of difference between two groups (Coe, 2002). It was used here to quantify the difference between students' pre-test and post-test performance.

**Perceptions of students' changes in reading interest after phase 1 of the IBL project**

Figure 4. Perceptions of changes in students' reading interest through the IBL approach
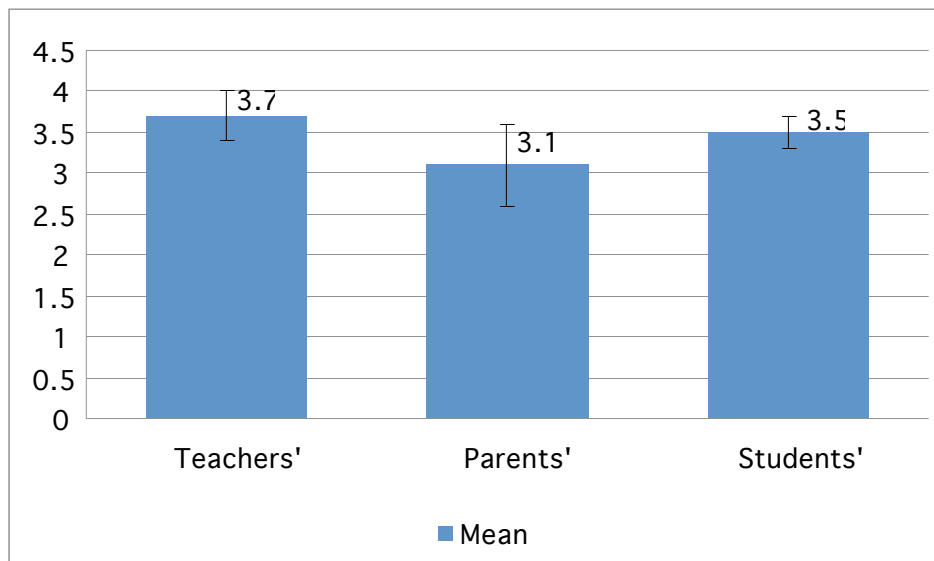


Notes:

- The three parties were answering the question "Did the IBL project help your students, your child or yourself increase your interest in reading?" according to a scale of 1-5, with 1 as 'none' and 5 as 'a lot'.
- Range of response for teachers (n =10): 3.7 – 4.0
- Range of response for parents (n =25): 3.1 – 3.5
- Range of response for students (n =135): 3.5 – 4.0

As indicated in Figure 4, all three parties have positive perceptions of the changes in students' reading interest through the IBL approach. The mean scores for changes in students' reading interest given by teachers, parents and students are 3.7, 3.1 and 3.5 respectively. The mean score given by teachers was significantly higher than that of parents (by 0.6); teachers generally perceived a greater positive change in their students' reading interest. One possible reason for parents giving the lowest mean score may be that some of them considered their children to have had a high level of interest in reading even before the IBL projects. Moreover, the score given by teachers was even greater than that given by the students themselves.

**Perceptions of students' changes in reading interest before and after the 2 phases of the IBL project**

The PIRLS reading habit and attitude survey was conducted before and after the two phases of the IBL projects. The results reveal that 12.9% of students (n=132) experienced an increase in reading interest after completing both IBL projects. However, 25% of students experienced a decrease in their reading interest (Table 4). In other words, although the perceptions of students' reading interest under the IBL approach was generally positive between the two phases, many students had a lower reading interest towards the end. Some teachers gave account for this by the fact that students started to lose interest in doing a similar project in the second phrase, even though they showed interest the first time around; a loss of interest in the project could mean a loss of interest in reading as well. This observation is similar to the change in students' writing ability before and after the IBL projects, which has been published in another paper. Students in all four classes improved in their writing ability after the first phase, but three out of four classes showed a decline at the end of the second phase (Chu, Chow, Yim, Chow, Ha, & Fung, 2007). The results suggest that it is important not to overload students with similar projects over a long period of time since it could lead to a loss of students' interest in the projects and the related readings.

Table 4. Changes in students' reading interest under the IBL approach

|  | Frequency (n) | Valid Percent (%) | Cumulative Percent (%) |
|---|---|---|---|
| Increase | 17 | 12.9 | 12.9 |
| No Change | 82 | 62.1 | 75.0 |
| Decrease | 33 | 25.0 | 100.0 |
| Total | 132 | 100.0 | |

Note: Students were asked to respond to the statement "I enjoy reading". Students answered with a scale of 1-4, with 1 as 'strongly disagree' and 4 as 'strongly agree'. A change in rating of 1 or more is regarded as a change of increase/decrease in here.

**Correlation between students' reading ability and their reading interests**

Students' responses to two statements of the PIRLS survey were further analyzed. The first one was "I enjoy reading" which revealed students' interest in reading. The second one was "Reading is easy" which indicated their self-perceived reading ability. To examine if the confidence in their own reading ability correlated with their reading interests, Spearman's correlation coefficients were computed. The results are shown in Table 5.

Table 5. Correlation coefficients between students' reading ability and their reading interests, before and after the entire IBL project*❖

| | I enjoy reading | |
| --- | --- | --- |
| | Pre-test | Post-test |
| ^Reading is easy | 0.41** | 0.29** |

Notes:

* Spearman correlation is used for generating the above correlation coefficients

❖ Valid pair-wise sampling size ranges from 133 to 136.

^ Questions were set according to a scale of 1-4, with 1 as 'strongly disagree' and 4 as 'strongly agree'

** Correlation is significant at the 0.01 level (2-tailed).

The statistically significant correlation coefficient indicates a positive correlation between students' self-perceived reading ability and their interest in reading. This shows that in general, students who consider reading as an easy task would tend to be more interested in reading. This reflects that the students' self-perceived reading ability and reading interest are positively correlated. The IBL projects could help students to improve their reading ability by arousing interests in reading. Through working on topics of interest, students are motivated to read more and their interests and abilities in reading would be enhanced through the completion of the projects.

## 5. Conclusion and implications

This paper demonstrates that the IBL approach involving support for students from four kinds of teaching staff proves to be effective in helping students improve their reading ability. Besides, the study demonstrates that the IBL approach was successful in altering students' attitude towards reading, particularly in raising their interest in reading. This in turn correlates with their improvement in reading. After all, this approach led to an improvement in the overall quality of students' group projects when compared to students in the previous year. However, it is noteworthy that overloading upper primary students with similar projects might lead to a loss of interest, limiting the benefits of the IBL approach. Hence, maintenance of students'

interest in the projects should be taken into consideration when designing an IBL curriculum. It is hoped that the findings and results from this paper will help provide deeper insights into the possibility of implementing the proposed inquiry-based learning approach in primary education curricula.

## 6. Limitations and future studies

In this study, students were tested and surveyed at the beginning before they started to work on their projects and at the very end after completing both projects. However, as mentioned earlier, interests in the projects could be lost due to overloading of two similar projects in upper primary students and this might influence students' performance in the test. In future studies, it would be desirable to test students' reading ability right after the completion of one long enough IBL project.

Besides, difficulties existed in collecting assignments from students for this study. For example, referring back to Table 1, very limited data was collected from Class G. The reason behind was that the assignments were given back to the students at the end of the term and it was difficult to recollect them. If future studies are to be done, it is important to ensure that students' assignments are collected for research purpose before they are given back to the students.

## 7. Acknowledgements

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# Primary students' reading habits of printed and e-books

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*Technological advancement has made books available not only in printed format but also in electronic format. To understand primary students' reading habits of printed books and e-books and discover if differences can be found in students of different gender or different level of studies, 99 primary schools students were invited to complete a questionnaire. Results show that boys generally read more than girls regardless of the book format, while boys are more positive about reading e-books and using digital libraries for reading online books. Students who read more printed books also tend to read more e-books. Implications for boys' positive attitudes towards e-books in developing their reading habits, as well as the potential development of digital libraries are drawn.*

## Introduction

Student literacy levels have long been a concern of not only education professionals, but society in general. Research has shown that reading is beneficial to academic achievement (Cherian & Thomas, 1995), encouraging further studies on student reading habits.

It was commonly found that gender and level of studies affect reading habits (Davies & Bremer, 1993; Dungworth, Grimshaw, Mcknight, & Morris, 2004; Hannesdottir, 1998). Reading habits are defined as "settled or regular tendencies to read particular types of material" (Davies & Brember, 1993, p. 305). In terms of gender, girls are more likely to enjoy reading than boys (Dungworth et. al, 2004), which perhaps explain why they read more than boys (Hannesdottir, 1998). This is reaffirmed in a recent study by Chiu and McBride-Chang (2006), where Hong Kong had the fourth smallest gap in terms of gender differences in literacy rate, although girls outscored boys in reading. Meanwhile, the content of the books boys and girls who are interested in also differs, though there is no consensus on their specific interest. In Dungworth et. al.'s study (2004), girls were more interested in magazines while boys preferred comics. Though Dungworth et.al. (2004) found both groups are equally

interested in stories, Davies and Brember (1993) found girls have a stronger preference. All in all, gender differences are found in reading habits.

Dissimilar findings on reading habits of students of different age groups and level of studies are also discovered. It was found in terms of the number of books read or the amount of time spent on reading, some older students with lower academic achievement tend to read less. Meanwhile, some older students are found to read more (Jonathan, 1995). Ross (2002) also discovered correlations can be found in people's reading habit and their education level that educated people who possessed more reading skills are more likely to read. A study by On the other hand, Davies and Brember (1993) shows that these differences become less significant as children get older. All in all, correlations on reading habits with gender/ level of studies were found, though with different findings from different researchers.

Technological advancement has changed the format of books (De Jong & Bus, 2004; Karim & Hasan, 2006, Liu, 2005). Books are no longer only available in their traditional printed form, but also in electronic format such as CD-ROM, DVD or online. In particular, a dramatic shift towards e-books occurred from 1998-2001 (Albanese, 2001). These new e-books are "an electronic version of a text that can be read on a standard desktop or laptop screen, on a PDA or other portable device, or on dedicated e-book hardware" (EDUCAUSE Learning Initiative [ELI], 2006). The flourish of e-books is both served and perpetuated by the development of complementary software and an industry focusing solely on the publication of e-books only (Chu, 2003). The availability of multimedia components such as animations and sound effects in e-books changed people's reading experience (De Jong & Bus, 2004; Liu, 2005; Matthew, 1997). In particular, the interactive nature of e-books made them beneficial to student learning (Grant, 2004). The immediate support such as sound effects and explanation of words improved student ability in word recognition (Grant, 2004) and reading comprehension (Matthew, 1997).

Despite the large amount of literature available on student reading habits (Cherian & Thomas, 1995; Chiu & McBride-Chang, 2006; Davies & Bremer, 1993; Dungworth et.al., 2004; Hannesdottir, 1998; Johnathan, 1995; Liu, 2005; Ross, 2002; Weinreich, 2000), little research in the Hong Kong context has taken student reading habits of e-books into account. As suggested by Karim and Hasan (2006) as well as Ross (2002), research in reading habits has to take note of the current advancement in technology. How the rise of e-books has changed reading patterns is controversial. For instance, according to Liu (2005), people read more when information can be obtained conveniently in a short period of time, explaining why young people today spend more time reading electronic resources. Conversely, people generally find it uncomfortable and do not prefer reading e-books on screen (Chu, 2003).

Given the benefits of e-books on student learning (Grant, 2004; Matthew, 1997) together with its increasing prevalence (Chu, 2003), student reading habits of e-books should be studied. With differences in reading habits of printed books being identified among students from different level of studies (Jonathan, 1995; Ross, 2002) and of different gender (Chiu and McBride-Chang, 2006; Davies & Bremer, 1993; Dungworth et.al., 2004; Centre for Children's Literature, as cited in Weinreich, 2000, p.48), similar research should also be conducted on e-books. This paper thus attempts to fill in some of the gaps in the existing literature regarding student reading habits of e-books, its relationship with gender differences and level of studies as well as its correlation with the reading habits of printed books.

**Method**

In an attempt to examine student reading habits of e-books, this study focused on the following five research objectives:

1. To understand primary school students'[1] reading habits of printed books.

2. To understand primary school students' reading habits of electronic books

3. To explore whether correlations can be found between gender and reading habits of printed and electronic books.

4. To explore whether correlations can be found between level of studies and reading habits of printed and electronic books.

5. To explore the correlation between the reading habits of printed books and e-books

It is hoped that through identifying links between gender differences and level of studies on students' reading habits of both printed and electronic books, implications for cultivating reading habits and developing e-books can be drawn.

*Sample*

A convenience sample of 99 students from a Hong Kong primary school of average academic standing was recruited to complete the questionnaire. To gain a deeper understanding of the participants' response, two primary 4 students were interviewed.

*Materials*

The questionnaire given to the 99 students included both open and close-ended questions—requiring participants to choose among a few choices such as ratings from 1-5 (i.e. 1 not useful, 5 very useful).

According to the International Institute for Electronic Library Research, a digital/ electronic library is defined as an "organised and managed collection of mixed media materials in digital form" (as cited in Ford et.al., 1997). With e-books being defined as an electronic version of digital materials that share the characteristics of being portable, transferrable and searchable (ELI, 2006), online books obtained from the digital library are certainly one form of e-books. To simplify our study, the section focusing on students' reading habits of online books mainly questioned students on their reading habits of online books available from the Hong Kong Education City Digital Library (HKEC-DL).

According to Chan (personal communication, June 2008), the HKEC-DL was a pilot project of a commercial publisher with HKEC providing the hosting service. It was recognised to be a powerful online digital library for children that can be accessed for free in local languages (i.e. Cantonese, Putonghua and English). It provided online books targeted at primary school students with 138 in Chinese and 43 in English. Among the reserve, 42 were

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[1] Primary school students in Hong Kong are mainly 6-12 years old with 6 levels of studies, ranging from primary 1 to 6.

equipped with audio or visual effects.[2] It was a good supplementary resource for students' leisure reading, which was frequently introduced to students, parents and colleagues by the school librarian where the study was conducted.

*Procedures*

Written questionnaires were created and distributed to three groups of students, namely primary 2, 4 and 6. They filled out the questionnaires during their library periods, which lasted for 30 minutes. Primary 4 and 6 students answered all questions on their own, while the questions were read out to primary 2 students by their teachers, and the students chose the most suitable answers. A total of 99 questionnaires were collected.

## Results

To examine if gender and level of studies affect students' reading habits of both printed and e-books, further analysis was conducted by grouping the dataset of the students by gender and level of studies. In terms of gender, there were 50 male and 49 female students respectively. In terms of level of studies, students were divided into three groups according to their level of studies namely, primary 2, primary 4 and primary 6. Correlations between the students' reading habits of printed and e-books were explored by Spearman's correlation test. It was found that students' reading habits of printed books correlated with those of e-books, while gender differences and differences in level of studies affected student reading habits of both printed and e-books.

*Students' reading habits of printed books*

To understand students' reading habits of printed books, their perception of total number of printed books read and average time spent on reading them was surveyed. As shown in Table 1, students perceived themselves as reading 4.1 printed books per week with 36 minutes spent on reading per day.

Table 1 Students' reading habits of printed books as perceived by students

| Interview/Survey Questions | |
| --- | --- |
| Number of printed books read per week | 4.1 |
| Average time spent on reading printed books per day[3] | 36mins |

Note:

These figures represent the students' approximated average time spent on reading as perceived by the students per day in minutes.

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[2] The HKEC Digital Library (http://elibrary.hkedcity.net/) was closed down since 2007 when the project was terminated by a commercial publisher. This information is no longer available in the internet.
[3] Throughout the study, for all questions inquiring about students' average time spent on reading, respondents answered according to a scale of 1-5, with 1 as '0 minute per day', 2 as 'less than 30 minutes per day', 3 as ' 30 minutes to 1 hour', 4 as '1-2 hours' and 5 as 'over 2 hours per day.' Average values of each interval, which is thereby 0 minute for scale 1, 15 minutes for scale 2, 45 minutes for scale 3, ninety minutes for scale 4 and 2 and a half hour for scale 5.

*Students' reading habits of e-books*

To understand students' reading habits of e-books, they were questioned about their history of reading e-books and using the HKEC-DL. As shown in Table 2, students spent around 13.5 minutes reading e-books per day, while the average number of times they browsed the digital library was approximately 4. Student comments on the digital library were positive, with above average rating on enjoyment and ease of use. Among the various functions of the library, as indicated in Table 3, students considered it most useful for looking for good books and identifying publishers.

Table 2        Students' reading habits of e-books

| **Interview/Survey Questions** | |
| --- | --- |
| Average time spent on reading e-books per day | 13.5mins |
| Number of times the HKEC Digital Library was used[a] | 4.1 |
| Enjoyment of reading e-books on HKEC digital library[b] | 3.1 |
| Ease of use [c] | 3.5 |

Note:
[a] Respondents answered according to a scale of 1-5, with 1 as '0 times' and 5 as 'more than 10 times';
[b] Respondents answered according to a scale of 1-5, with 1 as 'dislike' and 5 as 'like very much';
[c] Respondents answering according to a scale of 1-5, with 1 as 'very difficult' and 5 as 'very easy' for themselves.

Table 3 Students' perception of the usefulness of the HKEC Digital Library

| Interview/Survey Questions | |
|---|---|
| Leisure reading** | 3.2 |
| Looking for new books** | 3 |
| Looking for good books** | 3.3 |
| Identifying publishers for children's books** | 3.3 |

Note:
The above table only shows the four most useful aspects of HKEC Digital Library as perceived by the students.
** Respondents answered according to a scale of 1-5, with 1 as 'not useful' and 5 as 'very useful'.

*Links between students' reading habits of printed and e-books and their level of studies*

To further identify the underlying relations between students' reading habits of printed and electronic books and their level of studies, students' dataset were grouped according to their grade of studies. As shown in Table 4, although the total number of printed books read by upper primary students per week was smaller, the average time spent on reading per day was longer. Meanwhile, it is noteworthy that primary 4 students read the least number of printed books and spent the least time reading. This may be attributed to the differences in the level of academic achievement, as the primary 4 students involved in this study were less academically outstanding. Academically weaker students may find reading more difficult, and thus have less interest in reading.

Table 4          Students' reading habits of printed materials (by level of studies)

| Interview/Survey Questions | P2 | P4 | P6 |
|---|---|---|---|
| Number of books read per week | 4.4 | 3.5 | 4.1 |
| Time spent on reading per day | 33mins | 30mins | 42mins |

Similar trends were identified in the students' reading habits of e-books. As shown in Table 5, primary 2 students spent the most amount of time (18 minutes) reading e-books per day, while upper primary students spent much less time (10.5mins). However, primary 4 rated it as more enjoyable to read e-books on HKEC-DL than primary 6 students. Considering Table 5 and 6 together, of all the students, primary 6 students rated the HKEC-DL as least easy to use, as well as finding it least enjoyable and useful. In contrast, primary 2 students who were most positive about the digital library in terms of the ease of use, enjoyment from reading e-books in the library and usefulness, were the most frequent browsers of the digital library.

Table 5        Students' reading habits of e-books (by level of studies)

| Interview/Survey Questions | P2 | P4 | P6 |
| --- | --- | --- | --- |
| Average time spent on reading e-books per day | 18mins | 10.5mins | 10.5mins |
| Number of times the HKEC Digital Library was used[a] | 5.6 | 2.3 | 4.4 |
| Enjoyment of reading e-books on HKEC digital library[b] | 3.8 | 2.9 | 2.5 |
| Ease of use [c] | 3.6 | 3.6 | 3.2 |

Notes:
[a] Respondents answered according to a scale of 1-5, with 1 as '0 times' and 5 as 'more than 10 times';
[b] Respondents answered according to a scale of 1-5, with 1 as 'dislike' and 5 as 'like very much';
[c] Respondents answered according to a scale of 1-5, with 1 as 'very difficult' and 5 as 'very easy' for themselves.

Table 6        Students' perception of the usefulness of HKEC digital library for diverse purposes (by level of studies)

| Interview/Survey Questions** | P2 | P4 | P6 |
|---|---|---|---|
| Leisure reading | * | * | |
| Homework/Project research | * | * | |
| Looking for new books | * | * | |
| Looking for good books | * | * | |
| Learning about current events and activities on reading, such as book talks and exhibitions. | * | | |
| To learn more about various authors | * | | |
| To identify publishers for children's books | * | * | |
| To learn Mandarin (Putonghua) | * | | |
| To learn English | * | | |
| To discuss with other users in discussion area | | | |
| Participate in reading club | * | | |

Note:
Respondents answered according to a scale of 1-5, with 1 as 'not useful' and 5 as 'very useful'.
* Students on average rated 3.0 or above out of 5 for asterisked items.

*Links between students' reading habits of printed & e-books and gender*

Apart from differences in reading habits among students from different grades, differences were also found in the two genders. Contrary to common understanding and research findings, our results (as demonstrated in Table 7) showed that compared to girls, boys spent more time reading printed books per day (6 more minutes) with more books read (0.9 book) per week.

Table 7        Students' reading habits of printed books (by gender)

| Interview/Survey Questions | Boys | Girls |
|---|---|---|
| Number of books read per week | 4.4 | 3.5 |
| Time spent on reading per day (min) | 39 | 33 |

A similar trend was also found in students' reading habits of e-books. As shown in Table 8, there are considerable differences between the two genders on reading habits of e-books. Boys spent significantly more time (100% more, i.e. 9 more minutes per day) on reading e-books and used the digital library more frequently (56% more frequent) than girls. Furthermore, although both genders expressed an above average rating of enjoyment of reading e-books on the digital library and ease of use, boys were more positive on both items.

Table 8        Students' reading habits of e-books (by gender)

| Interview/Survey Questions | Boys | Girls |
|---|---|---|
| Average time spent on reading e-books (such as computer CD, online books etc.) per day (min) | 18 | 9 |
| Number of times visiting the Hong Kong Education City digital library[a,] | 5 | 3.2 |
| Enjoyment of reading e-books on Hong Kong Education City digital library[b,] | 3.3 | 2.8 |
| Ease of use [c] | 3.7 | 3.2 |

Notes:
a The respondents answered according to a scale of 1-5, with 1 as '0 times' and 5 as 'more than 10 times' of usage of the library;
b The respondents answered according to a scale of 1-5, with 1 as 'dislike' and 5 as 'like very much';
c The respondents answered according to a scale of 1-5, with 1 as 'very difficult' and 5 as 'very easy'.

Apart from the differences in the reading habits of e-books, differences can also be found among genders on perceptions of usefulness. As shown in Table 9, boys perceived the HKEC-DL more useful than girls, rating more aspects (4 more than girls) as above average.

Table 9        Students' perception of the usefulness of HKEC digital library (by gender)

| Interview/Survey Questions | Boys | Girls |
|---|:---:|:---:|
| Leisure reading | * | * |
| Homework/Project research | | |
| Looking for new books | | * |
| Looking for good books | * | * |
| Learning about current events and activities on reading, such as book talks and exhibitions. | | |
| To learn more about various authors | * | |
| To identify publishers for children's books | * | * |
| To learn Mandarin (Putonghua) | * | |
| To learn English | * | |
| To discuss with other users in discussion area | | |
| Participate in reading club | | |

Note:
Respondents answered according to a scale of 1-5, with 1 as 'not useful' and 5 as 'very useful'.
*Students on average rated 3.0 or above out of 5 for asterisked items.

*Correlations between students' reading habits of printed & e-books*

To further understand the relationship between students' reading habits of printed and e-books, a correlation analysis was carried out. Data of students from all three levels of study were used for comprehensive analysis.

As shown in Table 10, students' reading habits of printed and e-books were positively correlated and statistically significant. Correlation between the number of printed books students read per week and the number of times they visited the HKEC-DL was statistically significant at 0.01 level (2-tailed). This implies that students who read more printed books read more e-books as well.

Table 10   Correlation between users' reading habits of printed and digital materials or vice versa (frequencies)

| Paired Questions | Correlation Coefficient (r) |
|---|---|
| Between number of printed books being read every week and | |
| - time spent on reading e-books every day | 0.234* |
| - number of time visiting HKEC-DL | 0.275** |
| - like reading e-books in HKEC-DL | 0.212* |
| Between time spent on reading printed books and e-books everyday | 0.221* |

Note:
*Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

## Discussion

*Students of higher level of studies spent less time reading e-books and found the HKEC-DL less enjoyable*

As discussed in section 4, primary 6 students spent the most amount of time (42 minutes) per day reading printed books, even though their total number of books (4.1) read per week were smaller than others. However, they spent an equally small amount of time reading e-books (10.5 minutes per week) as primary 4 students, while rating the enjoyment of reading e-books in the digital library least enjoyable. This may be attributed to the differences in the level of difficulty of books read by students of different grades and the ability of the HKEC digital library to meet their needs. With higher level of studies, upper primary students are required to read books of more substantial content. Books targeted at lower primary students are easier and simpler than those targeted at seniors. By integrating multimedia

functions with a textual component, e-books provide a multisensory learning experience for students. Text may be read out by the computer with words being highlighted at the same time, allowing students to train their listening skills while processing the text. These kinds of multimedia functions are usually more applicable to books with less substantial content. Upper primary students usually read books with more substantial content, and thus less multimedia components. According to research conducted by Ramirez (2003), over 80% respondents prefer to print out the digital text to facilitate reading. Hence, they may not benefit as much as lower primary students, spend less time reading e-books and find the HKEC-DL less useful. This may imply e-book companies should invest more on publishing e-books with multimedia functions targeting lower primary students, who will enjoy and benefit the most.

*Gender*

Contrary to results of traditional research (Hannesdottir, 1998), our study shows that boys read both more printed books and e-books than girls. It is especially noteworthy that compared to girls, boys found the e-books and HKEC-DL more appealing. This may be attributed to differences in gender attitudes towards computers and perceived computer skills. Boys are found to be more positive towards computers (Varank, 2007; Whitley, 1997), possessing more computer skills and higher self-confidence in computer literacy (Whitley, 1997). The use and access of digital libraries requires information literacy and keyboarding skills; the relevance of digital libraries for children will therefore depend on their ability to access and understand the content (Adkins, 2002). If boys are more computer literate, they will find it easier to use HKEC-DL and read e-books with greater enjoyment.

As suggested by Ross (2002), people may be encouraged to read by being allowed to choose what they read. It is 'the pleasure in the reading experience itself' (Ross, 2002, p. 95) that keeps children reading and enabling them to become confident readers. With boys being positive towards reading e-books, together with the positive correlations between the reading habits of printed books and e-books as shown in Section 4.5, young boys may be encouraged to develop their reading habits through exposing them to e-books which they are fond of.

*Sustainability of Digital Library*

The overall above average ratings of students on the HKEC-DL together with their high frequency of reading e-books available in the HKEC-DL demonstrated students' positive attitude towards the digital library. Meanwhile, compared to printed books, online books can save on the financial costs of printing, mailing and storage (ELI, 2006). Furthermore, digital libraries offer the economic advantages of multiple access and being available all the time (Adkins, 2002; Tanner, 2002). All these advantages, together with the positive aspects of the digital library on student learning such as increasing student commitment and understanding of subject matters through multimedia interactive activities (ELI, 2006), suggest that digital libraries are worth being further developed.

However, sustainability is a major issue in the development of digital libraries. Many digital libraries were not updated or were even closed down, even though they were proven useful, as in the case of HKEC-DL. To prevent millions of dollars invested in planning and building up digital libraries being wasted as a result of termination years after the

development, sustainability should be one of the underlying principles of funding agencies and developers of digital libraries.

## Conclusion

This study added to our knowledge of students' reading habits of e-books and its correlation with their reading habits of printed books. It is shown that links can be found between the reading habits of students on printed/e-books and their gender/ level of studies. The more senior the students are, the lesser the numbers of printed books are read but with more time spent on reading per week. Meanwhile, senior students are less positive on e-books and spend less time on reading e-books. Contrary to previous research, in our study, boys read both more printed books and e-books than girls. Meanwhile, they are more positive on the use of HKEC-DL and reading e-books. Finally, correlations are found between reading habits of printed books and e-books regardless of gender and level of studies. The more printed books one reads, the more e-books one reads.

Based on our study, a few suggestions were made including focusing on the development of e-books for junior students who enjoy and may benefit the most from the e-book. Secondly, boys can be encouraged to develop reading habits through exposure to e-books, which they may be more interested in. Finally, sustainability of the digital library which is valued by the students should be ensured.

## 7. Limitation and Further Studies

Focus was placed on online books in the session studying students' reading habits of e-books. With online books being one format of e-books and sharing the characteristics of e-books (ELI, 2006), future study may broaden the scope by researching on other forms of e-books. This may provide a complete picture of students' reading habits of e-books and clarify if the present results can be generalized to electronic books that vary from the formats focused in this study.

One group of students studied in this research was of lower academic performance. Future study may control the differences in students' academic qualifications to eliminate the effects of academic achievements on reading habits.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# The Net Generation: Tech-savvy or lost in virtual space?

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*Recent findings from PEW Internet and American Life studies in the US, the JISC Information Behaviour of the Researcher of the Future report and the Educational Testing Service 2006 ICT literacy assessment, all indicate that the students from the Y or Net Generation are not as tech-savvy as portrayed by the world's media and large Internet software providers. If this is the case, then assumptions currently being made about the information-seeking behaviour of today's students need to be rectified at the school level to ensure that tomorrow's citizens are not disenfranchised or disempowered as users in a world where Governments are increasingly committed to the provision of essential services and information wholly online. This paper discusses the secondary results of a much larger PhD study on the information-seeking behaviour of the Net Generation and the need for schools and particularly teacher librarians, to become more involved in teaching students how to use the electronic environment effectively.*

*Net Generation, tech-savvy, Generation Y, digital natives*

## Introduction

Supporters of the Net Generation theory (also labelled the Y Generation) claim that children born after 1985 have an in-depth grasp and almost 'intuitive' knowledge of how to use technology, simply because they have never known a world without the Internet and technological change. This theory contradicts traditional information theory which contends that information-seeking behaviour is a complex activity that is affected by cultural, educational and social contexts (Case, 2002). Anecdotal evidence from schools and public libraries has long suggested that while young people actively use technology, they do not use it as described by the Net Generation theorists. In recent years there has been an emerging body of research on the Net Generation (Banwell, & Gannon-Leary, 2000; Barr, et. al, 2006; Combes, 2006 & 2007a; ETS, 2006; Fallows, 2005; Livingstone, et. al., 2005; Nicholas et. al. 2008) that largely debunks the myth of an intuitive user who is capable of using electronic resources to find information, a fact many teacher librarians have long suspected.

This research presents the secondary findings from a much larger PhD study which examines the information-seeking behaviour of young adults who fall into the upper age group of the Net Generation. The study seeks to discover whether the culture of use that surrounds the Internet has affected the way these young people use and obtain information from online and electronic resources. This paper will report on the findings from an anonymous Web survey and a series of in-depth interviews with a group of volunteer students from the Net Generation. It will discuss the information-seeking behaviour of these young adults, the skills required to use the Internet and electronic resources effectively, and how the results of this study may affect the teaching of information skills in schools.

# Background

The term Net Generation refers to children born after 1985 and was first used to describe this generation by Donald Tapscott in 1998, a time when use of the Internet was just emerging as a global phenomenon (Tapscott, 1998). Members of the Net generation are also referred to as Millennials, Generation Y or digital natives (Skiba, 2003). The underlying premise of the Net Generation theory is familiarity. The theory posits that these children and young adults are not afraid of technology and already have the skills required to use information communications technologies (ICTs) and electronic resources to seek information, simply because the technology is an everyday part of their information landscape (Tapscott, 1998; Oblinger & Oblinger, 2005). These are the 'digital natives' of the twenty-first century whose use of technology to find information appears to be vastly different from their parents and older generations.

According to the theory, members of the Net Generation have a range of attributes that sets them apart from previous generations. Their increased access to information via the Internet and electronic resources gives this generation a greater knowledge base which fosters independence and the ability to question and confront information (Tapscott, 1998). As a result of being exposed to a lot of knowledge on the Internet this group are more socially active, responsible and discerning users of information, and they are preoccupied with free expression and have strong views (Tapscott, 1998). Members of the Net Generation know what they want and have greater digital literacy skills (Skiba, 2003; Oblinger & Oblinger, 2005); are intuitive visual communicators, who have strong visual-spatial skills and are readily able to integrate the virtual with the physical world (Oblinger & Oblinger, 2005). They are exploratory learners and therefore develop skills which enables them to retain information and use it in innovative ways (Skiba, 2003; Dorman, 2000; Oblinger & Oblinger, 2005). Multi-tasking, a craving for connectivity and social engagement, the ability and a propensity to use a wide range of technologies allows the Net Generation to communicate with a broad range of users and exposes them to a wide range of ideas and cultural differences, thus leading to a more socially inclusive outlook (Tapscott, 1998; Dorman, 2000).

While there is no doubt that technology has affected and continues to affect the way we live and influences nearly every aspect of our daily lives, this body of popular literature requires closer analysis to determine whether the characteristics assigned to the Net Generation are based in fact, or are merely observations that describe what young people appear to be doing when using ICTs, rather than their actual skill levels and achievements. The basic premise of the Net Generation theory, that familiarity with technology equates with efficient and effective use and these achievements are only applicable to a specific group because they have grown up with technology, is flawed. Does this mean that children born into an era where cars are the norm, will therefore not only drive, but be good drivers simply because they have never known a landscape that is different? The theory also ignores the changing nature of technology, which has in turn produced an information landscape that is increasingly complex and populated by old and new information forms and technologies that require multiple skills to interrogate successfully.

The significance of the Net Generation literature cannot be understated. Much of it is freely available on the Internet where the nature of the medium ensures that the theory is re-circulated and kept in the forefront of the popular media. It has also been used by more serious researchers and educationalists who are seeking innovative ways to cater for a generation of students who expect more from education than the traditional chalk and

talk/lecture and content-based mode of curriculum delivery. The popular media present this generation as super users of technology and assign labels such as tech-savvy, web-savvy, Internet-savvy and computer-savvy. These terms have appeared in major educational policy documents such as the US National Technology Plan *Toward* a *New Golden Age in American Education* (U.S. Department of Education/Office of Educational Technology, 2004) and *Voices & Views from Today's Tech-Savvy Students*, part of a national report sponsored by the non-profit group NetDay (NetDay, 2004; Murray, 2004). In these systemic documents today's students are assumed to have a level of proficiency when seeking and using information found on the Internet and via electronic resources. The Australian Curriculum Corporation's report from the Le@rning Federation also describes the current generation of students as capable users who are able to acquire, communicate and manipulate information, and respond creatively to new technologies (Curriculum Corporation, 2005). To continue the driving analogy, does increased access to technology mean that everyone in this group 'drive', like 'driving' and 'drive' well on the Internet? And is this really that important anyway?

Governments and information agencies worldwide are currently employing digital initiatives which will ultimately make all government information and services transparent and publicly available via egovernment Web portals. Digital information repositories are also a feature of the corporate world, as the almost ubiquitous use of technology in the workplace produces an ever increasing amount of information. The endorsement of environmentally-friendly solutions to information storage, also make digital solutions very attractive. Supporters of egovernment solutions argue that digital information is more cost effective, easier to store (takes up less space), easier and faster to produce, easy to manipulate and with search engine technology, easier to locate. Governments also argue that information accessed by electronic means is catering for the next generation who, according the Net Generation theory, prefer and already have the skills to access information in this format. For citizens in the twenty-first century, government and public information is increasingly being published only in digital format. Being able to locate, interpret and use this information is going to be an essential skill set for citizens in the future. Thus, assumptions currently being made about the information-seeking behaviour of today's students need to be rectified at the school level to ensure that tomorrow's citizens are not disenfranchised or disempowered as users in a world where Government, education and economic information, and the provision of essential services is provided wholly online.

## Method

The initial data collection consisted of an anonymous Web-based survey of first year university students between the ages of eighteen and twenty-one (upper age group of the Net Generation cohort). This empirical data provided information about:

- the types of software and hardware used by young people;
- how they use technology for study and recreational purposes;
- whether age or experience are determining factors;
- how important information communications technologies (ICTs) are in their daily lives;
- how they feel about their skill levels (self-perception and self-esteem) and where/how they acquired these skills; and
- what they principally use technology for – information gathering, communication, entertainment, organisational tool.

The findings from this dataset were reported at the *Cyberspace, D-world, E-learning: Giving libraries and schools the cutting edge, The 2007 IASL Conference*, National Taiwan Normal University, Taipei, Taiwan (Combes, 2007a) and the *ASLAXX Biennial Conference: Hearts on fire, sharing the passion*, Adelaide, Australia (Combes, 2007b) in 2007. The initial Web survey included 533 participants, with 232 or 43% of the total survey group volunteering to be part of the follow-up study.

The initial dataset obtained from the Web survey was used to develop two metrics to determine the confidence levels (Affective Domain) and technology use (Effective Domain) of participants. It was used to target participants for a follow-up study. Contrary to the Net Generation theory, it was posited that in a normal population, the participants should fall into four categories according to their index of 'Net Gen-ness':
1. **LC/LU-NG:** Low Confidence, Low Use Net Gen Attributes
2. **LC/HU-NG:** Low Confidence, High Use Net Gen Attributes
3. **HC/LU-NG:** High Confidence, Low Use Net Gen Attributes
4. **HC/HU-NG:** High Confidence, High Use Net Gen Attributes

The Web survey was followed by a series of semi-structured, in-depth interviews and two information tasks conducted with forty students who exhibited a range of Net Gen attributes as determined by the metric. According to the Net Generation theory, all or most of the participants should have emerged in category 4: HC/HU-NG: High Confidence, High Use, Net Gen Attributes. A cluster analysis was conducted on the Web survey dataset which revealed no significant clusters for this particular group of users. Hence, a major finding from the Web survey is the fact that this group of Net Geners is very homogeneous. Rather than being very confident, high-end users of technology, they appear to be discerning and average users of technology when level of use is determined by technology type, length of use and frequency of use. Almost twenty percent of the survey group do not like using technology for learning and while males are more confident than females, the difference in confidence is not statistically significant, an indication that girls are fast closing the gender gap reported in earlier studies. When asked how they acquired their skills, most participants (>87%) indicated they had learnt to use the Internet by experiential learning by themselves. A significant percentage of students also reported they had difficulties with simple information literacy skills such as collecting (30.206%), managing (28.705%) and evaluating information (25.202%); finding information again for later use (22%); and even storing information (16.885%) for later use (Combes, 2007b). Almost all of the participants in the survey group fell within one standard deviation of the means for confidence (Affective Domain) and use of technology (Effective Domain) as determined by the metric. The homogenous nature of the group is obvious when the data is presented as a scattergram in Figure 1.
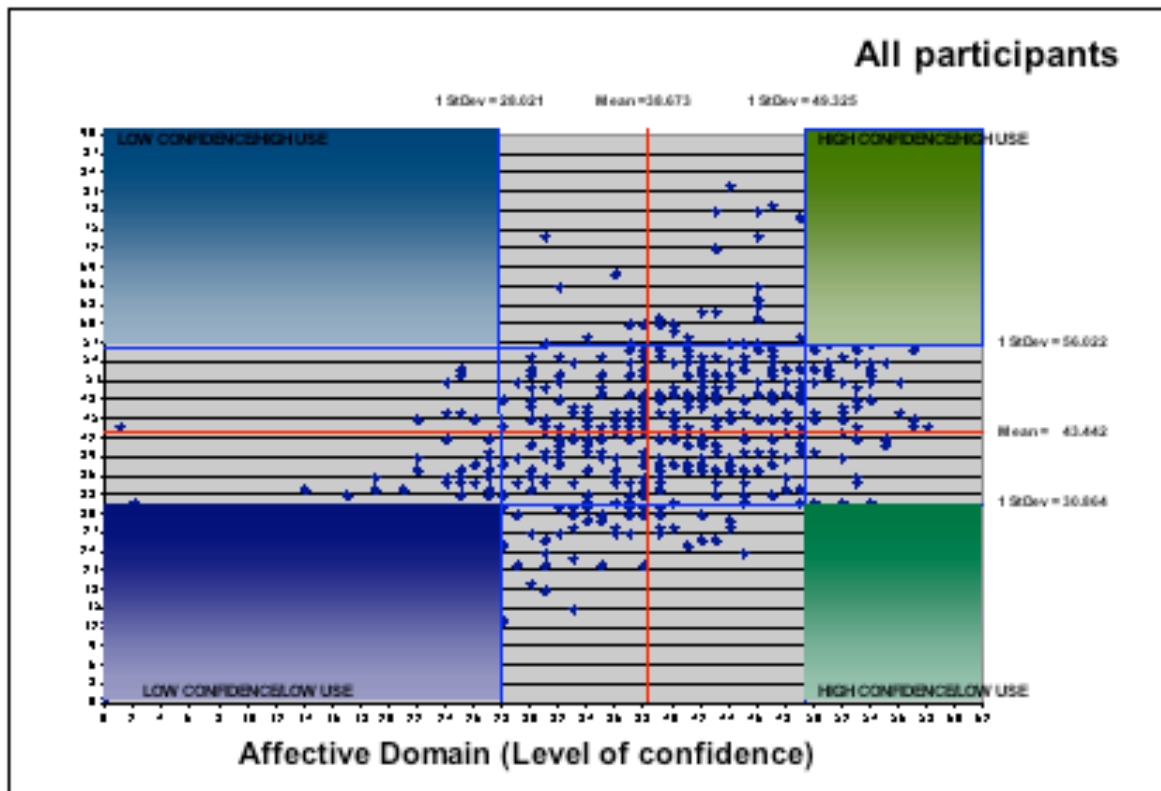
Figure 1: Net Generation attributes for all participants

## Follow-up tasks and interviews

A sample of 40 students who were identified as having certain Net Gen attributes, were selected for interview. Participants were asked to complete two tasks. One task had a personal or recreational information-seeking focus (finding information for a holiday trip), while the other had an educational information-seeking focus (finding information for an essay and tutorial presentation). Hence, both tasks were set in a real life context. Verbal protocols (think alouds) were used to track the participants' information-seeking behaviour and thought processes. Use of the software program *Morae,* allowed the researcher to photograph the participant, record verbal protocols and track their information-seeking on the computer. The software allowed the tasks to be conducted in a less intrusive manner and enabled the researcher to compare participants' body language and dialogue as they verbalise their actions (what they think they're doing) with their information seeking behaviour real time (as it is happening) by tracking and recording their use of the technology.

Wherever possible, the task analysis was followed by semi-structured, in-depth interviews. The interviewer used a structured interview format and an interview prompt checklist to provide consistency and to act as a quality assurance measure to balance the influence of the interviewer during the qualitative data collection (Woodhouse, 2005). Data collected during the empirical study, the task analysis and the in-depth interviews were then analysed using an interview checklist and a recording marker system in the *Morae* software to determine the information-seeking behaviour of individual participants. Analysis of the data will provide an in-depth snapshot of how this particular group of Net Gen students are seeking information and using the Internet/Web. The data will also indicate any emerging trends in the information-seeking behaviour of young adult Internet users and how much their information-seeking behaviour is affected by their personal culture of use in the electronic

environment. This paper will present the findings from the in-depth interview and the preliminary findings from the tasks which are still undergoing analysis.

## Findings

A major finding from the anonymous Web survey is that there are no significant clusters in this group. The way participants are using technology, the types of technology they are using, where/how they acquired their skills in using the Internet and their levels of confidence, is extremely homogenous. As indicated in Figure 1, most of the participants fall within a standard deviation of the means for level of confidence (Affective Domain) and level of use (Effective Domain). There are small populations who fit into the low confidence/low use (LC/LU-NG) and high confidence/high use (HC/HU-NG) categories, but in terms of the whole group, these are not large enough to be significant. There are very small numbers who fall into the low confidence/high use (LC/HU-NG) and high confidence/low use (HC/LU-NG) categories. If this is an accurate finding, the homogenous nature of this survey group should also be evident in the follow-up interviews and task analysis. What students say they are doing anonymously should also correlate with what they say they're doing in a face-to-face interview and with what they are actually doing in the tasks. If this particular survey group is typical of Net Generation users, the results should also reflect findings from other research studies.

Correlation analysis was also conducted using the Web survey data to establish any further relationships between how the participants were using technology, their levels of use and levels of confidence. This dataset supported earlier findings from the Web survey. This is an extremely homogenous group and participants are using technology according to their needs rather than ubiquitously. The interview results also followed this pattern, although there were some interesting additional findings. To enable a visual comparison between the students interviewed, the results were transferred to an Excel spreadsheet, with positive results appearing in yellow and negative results in blue. The homogenous nature of this group is very apparent in the bands of colour that appear in the spreadsheet results.

### *Levels of use (Effective Domain)*

The Net Generation theorists were right about the frequency of use for members of this generation. Most of the interviewees reported using the Internet on a daily basis, even those who disliked using it. They are also very confident users.



Figure 2: Interview males – personal rating of ability (confidence)



Figure 3: Interview females – personal rating of ability (confidence)

**Legend**
Rows: top – bottom

Beginner/non-user
Gaining confidence
Average
Good
Very good
Expert

| 699 LC/LU | 688 LC/av | 231 av | 53 av/LU | 689 av/LU | 322 av | 41 av | 450 av | 377 av | 753 av | 638 av/HU | 736 HC/HU | 647 av/HU | 629 av | 817 HC/HU | 845 HC/HU | 946 HC/av | 922 HC/av | 639 HC/HU | 92 HC/HU | 402 HC/HU | 519 av/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| x |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
|  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | x | x |  | x |  |  |  | x |  |  |  |  |  | x |
| x |  |  |  |  |  | x |  | x |  | x |  |  | x |  | x | x | x | x |  |  | x |
|  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  | x |  |  |
|  |  | x |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
|  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Figure 4: Interview males – frequency of use

| 572 LC/LU | 87 LC/LU | 336 av/LU | 423 av/LU | 99 av/LU | 32 LC/LU | 17 av/HU | 200 av/av | 615 LC/HU | 443 HC/av | 312 HC/av | 599 HC/av | 861 HC/LU | 687 HC/HU | 313 HC/HU | 872 HC/HU | 141 HC/av | 319 av/HU | 142 HC/HU | 698 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | x | x | x | x |  | x | x | x | x | x | x | x | x | x | x | x |  | x |  |
| x |  |  |  |  | x | x |  |  |  |  |  |  |  |  | x |  |  |  |  |
|  |  | x | x | x | x |  | x | x | x | x |  |  |  |  |  |  |  |  |  |
|  |  | x |  |  |  |  |  |  |  | x |  | x | x |  |  | x | x |  |  |
|  | x |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Figure 5: Interview females – frequency of use

The interview results correlate closely with the Web survey results. This particular group of Net Geners are confident users of technology and most are using the Internet on a daily basis. Most of the survey group reported using the Internet often (19%) or very frequently (72%) during the previous 3 months. They also rate their abilities highly in comparison to other members of their peer group outside university and in comparison to the rest of their generation. A small number of interviewees believed the Net Generation myth and felt that the information-seeking behaviour of younger members would be better because they had had access to technology longer.

| 699 LC/LU | 688 LC/av | 231 av | 53 av/LU | 689 av/LU | 322 av | 41 av | 450 av | 377 av | 753 av | 638 av/HU | 736 HC/HU | 647 av/HU | 629 av | 817 HC/HU | 845 HC/HU | 946 HC/av | 922 HC/av | 639 HC/HU | 92 HC/HU | 402 HC/HU | 519 av/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | x |  |  |  |  |  |  |  |  | x |  |  |  | x | x | x | x |  | x |  |  |
|  |  | x | x | x | x | x | x |  | x |  | x |  |  |  |  |  |  |  |  | x |  |
| x |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  | x |  | x |  | x |

Figure 6: Interview males – information-seeking behaviour, personal rating

| 699 LC/LU | 688 LC/av | 231 av | 53 av/LU | 689 av/LU | 322 av | 41 av | 450 av | 377 av | 753 av | 638 av/HU | 736 HC/HU | 647 av/HU | 629 av | 817 HC/HU | 845 HC/HU | 946 HC/av | 922 HC/av | 639 HC/HU | 92 HC/HU | 402 HC/HU | 519 av/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| x | x | x | x |  | x |  | x |  |  | x |  |  | x | x | x | x | x | x | x | x | x |
|  |  |  |  | x |  | x | x |  |  |  | x |  | x |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | x |  | x |  |  |  |  |  |  |  |  |  |  |  |

Figure 7: Interview males – information-seeking behaviour, compared to peers outside university

| 699 LC/LU | 688 LC/av | 231 av | 53 av/LU | 689 av/LU | 322 av | 41 av | 450 av | 377 av | 753 av | 638 av/HU | 736 HC/HU | 647 av/HU | 629 av | 817 HC/HU | 845 HC/HU | 946 HC/av | 922 HC/av | 639 HC/HU | 92 HC/HU | 402 HC/HU | 519 av/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  | x | x | x |  | x |  | x |  |  |  | x |  | x |  | x | x |  | x | x |
| x | x | x |  |  |  | x |  |  |  |  | x | x |  |  | x |  |  |  | x |  |  |
|  |  |  |  |  |  |  |  |  |  |  | x |  |  |  | x |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  |  |

Figure 8: Interview males – information-seeking behaviour, compared to The Net Generation

| 572 LC/LU | 87 LC/LU | 336 av/LU | 423 av/LU | 99 av/LU | 32 LC/LU | 17 av/HU | 200 av/av | 615 LC/HU | 443 HC/av | 312 HC/av | 599 HC/av | 861 HC/LU | 687 HC/HU | 313 HC/HU | 872 HC/HU | 141 HC/av | 319 av/HU | 142 av/HU | 698 HC/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| x | x |  |  | x | x |  | x | x | x |  |  | x | x |  |  |  |  |  | x |
|  |  | x | x |  |  | x |  |  |  |  | x |  |  |  |  | x | x |  |  |
|  |  |  |  |  |  |  |  |  |  | x |  |  |  | x | x |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |

Figure 9: Interview females – information-seeking behaviour, personal rating

| | 572 LC/LU | 87 LC/LU | 336 av/LU | 423 av/LU | 99 av/LU | 32 LC/LU | 17 av/HU | 200 av/av | 615 LC/HU | 443 HC/av | 312 HC/av | 599 HC/av | 861 HC/LU | 687 HC/LU | 313 HC/HU | 872 HC/HU | 141 HC/HU | 319 HC/av | 142 av/HU | 698 HC/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Less than me | | | x | | | | x | x | x | x | | | | x | x | | x | | | x |
| Same as me | | | | x | | | | | | | | | | x | x | | x | | | |
| Better than me | | x | | | x | x | | | | | | | x | | | | | | | |
| Much better than me | x | | | | | | | | | x | | | | | | | | | | |
| Audio failed | | | | | | | | | | | | | | | | | | | x | |

Figure 10: Interview females – information-seeking behaviour, compared to peers outside university

Legend (Figure 10): Less than me / Same as me / Better than me / Much better than me / Audio failed

| | 572 LC/LU | 87 LC/LU | 336 av/LU | 423 av/LU | 99 av/LU | 32 LC/LU | 17 av/HU | 200 av/av | 615 LC/HU | 443 HC/av | 312 HC/av | 599 HC/av | 861 HC/LU | 687 HC/LU | 313 HC/HU | 872 HC/HU | 141 HC/HU | 319 HC/av | 142 av/HU | 698 HC/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Less than me | | | | | | | | | | x | | | | | | | | | | |
| Same as me | | | x | x | | | x | x | | | | x | | x | | x | x | | | x |
| Better than me | | x | | | x | | x | | | | x | | | | x | | | x | | |
| Much better than me | x | | | | | x | | | | | | | x | | | | | | | |
| Younger Net Gen much better than me | | | | | | | | | x | x | | | | | x | | | | | x |
| Audio failed | | | | | | | | | | | | | | | | | | | x | |

Figure 11: Interview females – information-seeking behaviour, compared to The Net Generation

Legend (Figure 11): Less than me / Same as me / Better than me / Much better than me / Younger Net Gen much better than me / Audio failed

Results from the correlation analysis indicate that frequency of use does have a positive impact on how young people feel about their ability to use the Internet successfully, particularly for finding information, communication and entertainment (see Appendix 1, Table 1: Correlation coefficients and levels of confidence). Is this a case of familiarity breeds contempt? As software developers create programs that are 'smart' and super user-friendly, where embedded artificial intelligence (AI) processes information in a pre-determined manner, does this lead young people into a false sense of confidence about their ability to find and use information? While 69.981% of the group reported that they felt confident about judging the reliability of the information they found on the Internet, few of the follow-up students interviewed planned their information-seeking when using search engines to search the Internet and a number admitted they had problems when trying to find information again.

| | 699 LC/LU | 688 LC/LU | 231 av | 53 av/LU | 689 av/LU | 322 av | 41 av | 450 av | 377 av | 753 av | 638 av/HU | 736 HC/HU | 647 av/HU | 629 av | 817 HC/HU | 845 HC/HU | 946 HC/av | 922 HC/av | 639 HC/HU | 92 HC/HU | 402 HC/HU | 519 av/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No/not really | | x | x | x | x | | x | | | x | | x | x | x | x | x | x | x | x | x | x | x |
| Sometimes | | | | | | | | | | | x | | | | | | | | | | | |
| Usually | x | | | | | | x | | x | | x | | | | | | | | | | | |
| Always | | | | | | | | | | | | | | | | | | | | | | |

Figure 12: Interview males – information-seeking behaviour, planning

Legend
Rows: top – bottom

No/not really
Sometimes
Usually
Always
Audio failed

| | 572 LC/LU | 87 LC/LU | 336 av/LU | 423 av/LU | 99 av/LU | 32 LC/LU | 17 av/HU | 200 av/av | 615 LC/HU | 443 HC/av | 312 HC/av | 599 HC/av | 861 HC/LU | 687 HC/LU | 313 HC/HU | 872 HC/HU | 141 HC/HU | 319 HC/av | 142 av/HU | 698 HC/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No/not really | x | | | x | x | x | x | x | x | | x | x | x | x | x | x | x | x | | x |
| Sometimes | | x | x | | | | | | | x | | | | | | | | | | |
| Usually | | | | | | | | | | | | | | | | | | | | |
| Always | | | | | | | | | | | | | | | | | | | | |
| Audio failed | | | | | | | | | | | | | | | | | | | x | |

Figure 13: Interview females – information-seeking behaviour, planning

| | 699 LC/LU | 688 LC/av | 231 av | 53 av/LU | 689 av/LU | 322 av | 41 av | 450 av | 377 av | 753 av | 638 av/HU | 736 HC/HU | 647 av/HU | 629 av | 817 HC/HU | 845 HC/HU | 946 HC/av | 922 HC/av | 639 HC/HU | 92 HC/HU | 402 HC/HU | 519 av/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Always | | | | | x | | | | | x | | | | | | | | | | | | |
| Usually | | | x | | | x | | | x | | | x | | | x | x | | | x | x | | x |
| Yes - If I have saved information | | | | | | | | | x | x | | x | x | | | | x | x | | | | |
| Yes - personal use only | x | x | | x | | | x | x | | | x | | | x | | | x | | | x | | |
| No/not always | | | | | | | | | | | x | | | | | | | | | | | |

Figure 14: Interview males – re-finding information

Legend
Rows: top – bottom

Always
Usually
Yes - If I have saved information
Yes - personal use only
No/not always
Q omitted/audio failed/no clear answer

| | 572 LC/LU | 87 LC/LU | 336 av/LU | 423 av/LU | 99 av/LU | 32 LC/LU | 17 av/HU | 200 av/av | 615 LC/HU | 443 HC/av | 312 HC/av | 599 HC/av | 861 HC/LU | 687 HC/LU | 313 HC/HU | 872 HC/HU | 141 HC/HU | 319 HC/av | 142 av/HU | 698 HC/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Always | | x | | | | | | | x | | | | | | | x | | | | |
| Usually | | | | x | | | | | | x | | x | | | | x | | | | |
| Yes - If I have saved information | x | | | x | | | | | | | | | | | | | | | | |
| Yes - personal use only | | | | | | x | | | | | | | | | | | | | | |
| No/not always | | | x | x | | x | | x | | | x | x | | x | x | | x | x | | x |
| Q omitted/audio failed/no clear answer | | | | | | | | | | | | | | | | | | | x | |

Figure 15: Interview females – re-finding information

A small number of the student tasks have also been analysed and reveal that students spend a good deal of their time revisiting sites when searching for information. Each task lasted fifteen minutes. Figures 16 and 17 show the activity of a male student from the high confidence/high use (HC/HU-NG) category.
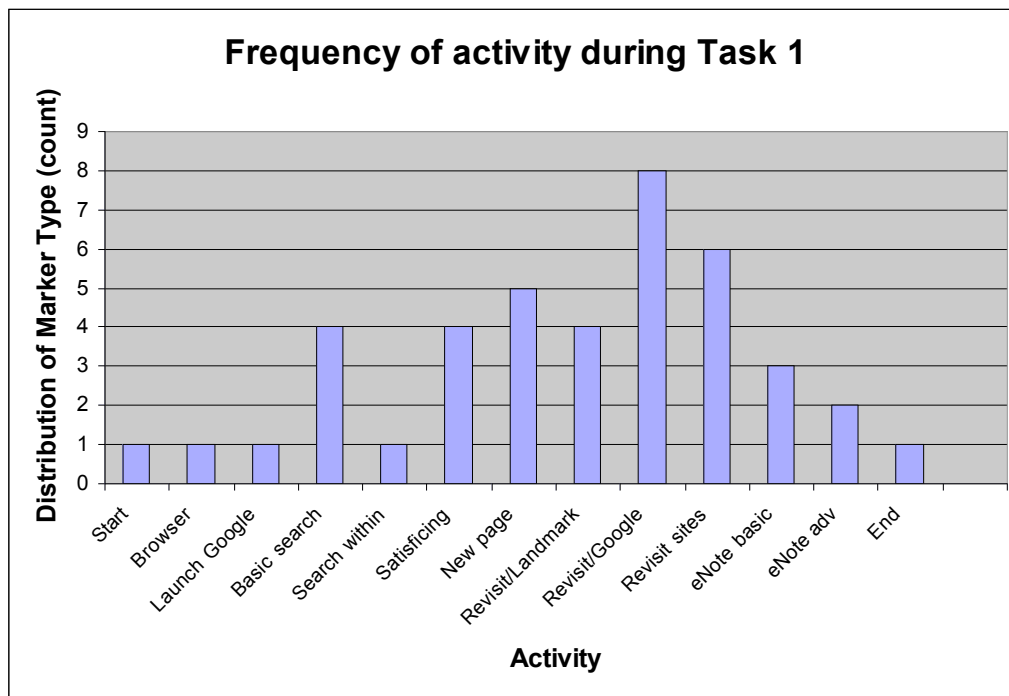


Figure 16: Student #639, frequency of activity during task 1

Of the forty participants in the follow-up study only two students completed one of the tasks. In this case the student did not complete the first task. At no time did the participant appear to be frustrated with the task. Even though he had difficulty finding the information he required, he persisted with the task throughout. The student showed some evidence of multi tasking, but only if multi tasking is defined as moving between related tasks. When the participant found a site that contained some of the required information, he tended to stay with it and use it, rather than initiate a new search. He used the first site accessed from his original search as a landmark site and continually went back to this site as a starting point for his later searches. There was strong evidence of satisficing (accepting the first information available), he appeared to trust the search engine results and did not look further than the first two results in any of his searches. There was no evidence of planning and he did not revisit the task sheet.

The activity graph for task two where the student was looking for academic information is similar to task one, except he went to the library databases for his initial search. However, he did not use the library catalogue to find a book title and used EBSCO Host for the journal article even though this database was not particularly useful for the task. EBSCO is a journal database that is frequently used in secondary schools, an indication perhaps that his choice was based on prior familiarity. Searching in this database proved unsuccessful and he moved very quickly onto a new search in Wikipedia. Time elapsed in the library was less than three minutes. As in the first task, simple keywords were the main search method, multiple pages were open and he tended to revisit sites multiple times. While there was no planning evident, he did revisit the task sheet. Again, satisficing behaviour was evident, as he did not go beyond the first two results in the Google search and did not look

deeper than the first four articles in the journal database, even when the title of the first result indicated that the article was not particularly relevant to the topic. While the student created electronic notes he cut and pasted ephemeral URLs (result of a search), which indicates a lack of understanding about searches and their results. He used Amazon to search for a book title. In both cases the student used the cursor to guide his reading of the text on the screen when reading in-depth, a phenomenon observed in other task analyses. This behaviour was also a major finding in the interview data, where students reported difficulties in reading and engaging with text on screen. There was a definite preference for printing and interrogating text on paper using traditional methods such as highlighting, a result that was also reflected in the Web survey where 85% of respondents felt the printer was either very important or essential.
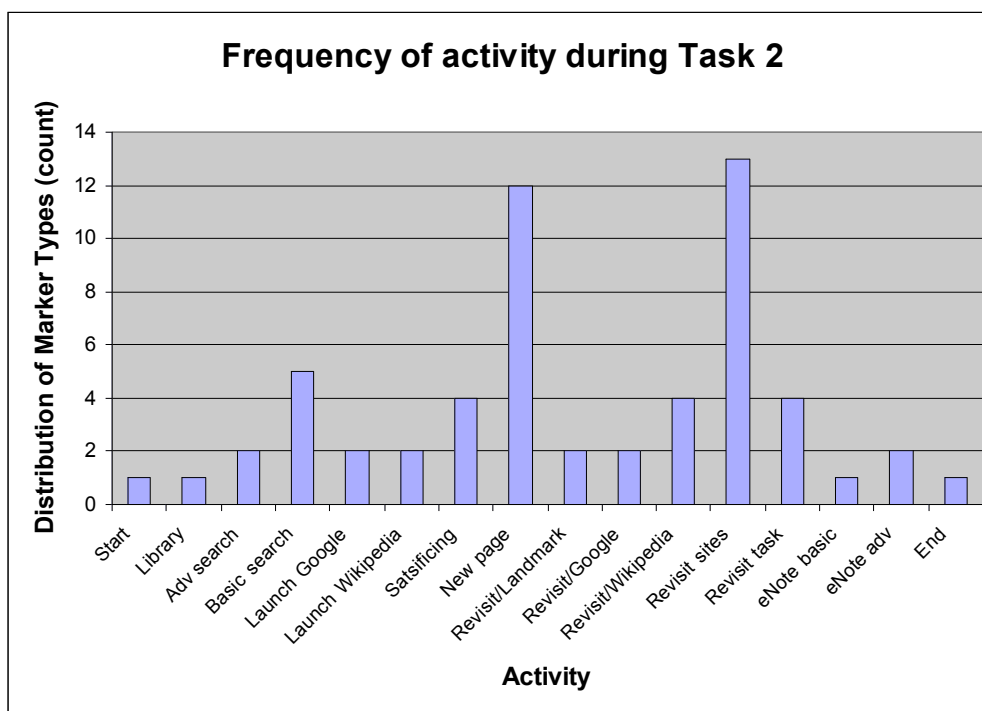


Figure 17: Student #639, frequency of activity during task 2

In both tasks this HC/HU-NG student spent a large part of his searching time revisiting sites and switching between multiple open windows. He did not complete either task, did not appear to understand the limitations of the public domain Web, trusted the search engine results and information found in Wikipedia and often appeared to be lost in virtual space. The propensity of users in this age group to exhibit satisficing behaviour has been widely reported in the literature (Case, 2002; Nicholas et al., 2003; Fallows, 2005; Scott, & O'Sullivan, 2005). As evidenced here, other studies have found that students use unsophisticated search strategies, tend to browse or use commercial search engines like Google and demonstrate a serious lack of understanding of the limits of the free Web (Griffiths, 2003; Everhart, & Valenza, 2004; Sandvig & Baiwa, 2004; Scott, & O'Sullivan, 2005). Results from the in-depth interviews also indicated an unsophisticated culture of use where students use simple keywords to search for information. They use this method even if they have had some prior instruction in how to search the databases using Boolean search strategies. They also use the same method when searching within websites and in one case when searching in the journal titles section of the library. This culture of use is predicated on experiential learning and the results of the interviews and tasks analysed so far, indicate that

it is extremely difficult to change. This characteristic has also been reported in the literature from the Illinois Mathematics and Science Academy (IMSA) *21st Century Information Fluency Program (21CIF)* research project. This project used pre-testing and post-testing after an intervention skills program in electronic search techniques, and found that many students reverted back to the culture of use they employed prior to the intervention (Barr et al., 2006). Such behaviour suggests that students come to serious information seeking in the electronic environment with an established culture of use that requires closer scrutiny by researchers and schools if we are going to change information seeking behaviour in the electronic environment.

Students in the interviews indicated that they are using Google almost exclusively when searching the Internet. They rarely go beyond the first results page and always use simple keyword searching. The way the Google algorithms work (most popular site visited first) coupled with this generation's tendency to satisfice when information seeking and their trust in the search engine results, means they are often unsuccessful or don't find information that is specific to their query. Students in the interviews also indicated that if the information they are seeking isn't recognisable in the first page of search results, then they will change their search terms/keywords. Many students used the term relevant when talking about search engine results, ie. if the search engine result appears to be relevant to my search then it must be the best information for me. Coupled with their trust in search engine results and confidence, this leads to an assumption of authority, ie. if the search engine result is relevant to my query then it must be authoritative or good information. This idea of relevance = authority may also explain why most participants felt that they find what they are looking for most of the time. Many participants indicated that problems only arise when they are searching for very specific information. This trust in search engine results and participants' confidence also means that if they can't find anything after trying several searches, they will often assume that the information isn't available, rather than concluding that they can't find it. The reliance on keyword search methods across all areas (Google/search engines), closed systems/repositories (databases) and on the Web (Wikipedia) indicates a lack of sophistication in search methodology that will limit the quality of information retrieved.

Figure 18: Interview males – information-seeking behaviour, Google

Figure 19: Interview females – information-seeking behaviour, Google

**Legend**
Rows: top – bottom

**Culture of use – Searching**
Google always use/usually
Google - use keywords
Adv search – sometimes
Sometimes, Google
Sometimes, other search engines
Wikipedia use as landmark site
Wikipedia use keywords
Use Library/Web databases -
Use keywords - library databases
Use Boolean search methods
Use a sentence/phrase to search
Not allowed to use public websites
Relevance = authority

Students interviewed indicated that they trust the search engine results and assume that search engines such as Google list results with the most appropriate or relevant site for their search enquiry, first. One student commented that 'Google knows everything' and 'Google is king'. This anthropomorphisation of a search engine is an extreme example of this trust, where the student appears to be attributing intelligence to the search engine. This level of trust and confidence in search engines and the tendency to equate relevance with authority and accuracy, indicates that the young people in this group do not really understand how different search engines work. Undoubtedly, Google's success has been largely due to the search engine's uncluttered design (student comment), ease of use and the fact that any search will ensure the retrieval of some information. User-friendly access to information, where the technology appears to be able to do the work for the user is attractive to this generation of users (Everhart, & Valenza, 2004) who are used to having fast access to other people, information and entertainment. Perhaps this explains the overt satisficing behaviour of this generation of users.

Some of the participants also felt that constant exposure to a lot of information enabled them to differentiate good information from 'rubbish'. However, the evaluative processes used by participants appears to be cursory or based on superficial methods such as looking to see if a web site has an education or government designator in the first part of the web site address (URL). The assumption here is that if the information is present on a web site with a government or education designator in the web address, then this makes it good information, even if there is a tilda (~) in the URL which indicates that the site may not be part of the official site, but rather, a private individual who is using the organisation's server. Some students indicated that they will sometimes try to verify authorship or quality by looking for other websites that say the same thing, ie. the assumption that if information is common, then it is authoritative. This method is also flawed due to the nature of the Web, which promotes fluidity and facilitates the easy transfer and manipulation of information by multiple users. User-friendly access and the ability to manipulate information quickly and easily as part of everyday use, means that information shared via the Web tends to lose its original integrity as it is picked up and re-used by multiple users and disseminated around the global network. "There is no audit trail on the Internet. Information is subtly transformed and like Chinese whispers, the end product may bear no resemblance to the original in form, context or purpose" (Combes, 2004, ACEC). Thus, if information that is not authoritative and has little quality is circulated by enough people, it can eventually come to be regarded as true, good and even new, information. Hence, the very nature of the Web and how information is presented and circulated, can lead to a situation of compound ignorance, where poor quality information is constantly verified simply because it is being picked up and used by multiple users. This situation is exacerbated by search engines such as Google which present the most popular sites first as a search result, rather than the most appropriate or best information available for the query. Trust in search engine results, ease-of-use and the expectation that the technology will do the thinking for the user, are features of this particular group's information-seeking behaviour.

The majority of the students interviewed also admitted to using Wikipedia regularly, even though they were all aware that this is not considered a reliable academic source. Students were using Wikipedia as a landmark site, as a general reference site for definitions of terms and to acquire links to other information on the Web. While they weren't citing Wikipedia in their assignments (because they had been warned not to), they were still using it, sometimes as their only information source. The second task (academic) required students to have an understanding of the term lifelong learning, which is defined in Wikipedia as adult

learning. Since none of the interviewees planned their information task and Wikipedia was the most frequently and only source used, the information retrieved for the task was not accurate.

| | 699 LC/LU | 688 LC/av | 231 av | 53 av/LU | 689 av/LU | 322 av | 41 av | 450 av | 377 av | 753 av | 638 av/HU | 736 HC/HU | 647 av/HU | 629 av | 817 HC/HU | 845 HC/HU | 946 HC/av | 922 HC/av | 639 HC/HU | 92 HC/HU | 402 HC/HU | 519 av/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yes | x | x | | x | x | x | x | x | x | x | x | x | x | x | x | | x | x | x | x | x | x |
| Sometimes | x | x | x | | | | | | | | | | | | x | | x | x | | | x | |
| Don't cite it | x | x | | x | | x | x | x | x | x | x | x | x | | x | occ | x | | | x | x | x |
| Starting point/general reference | x | | | | x | | | | | | | x | | | x | | x | | | x | x | x |
| Find and use links to information | | | | | | | | | | | | | | x | | | | | | | | |
| For academic use, reliable information | x | | x | | | | x | x | x | | x | | | | x | occ | x | x | | x | x | x |
| Yes - for personal use | | | | | | | | | | | | | | | | | | | | | | x |
| Wikipedia editor | | | | | | | | | | | | | | | | | | | | | | x |
| No/Not allowed to use for uni | | | | | | | | | | | x | | x | | x | x | | | | | x | |
| Unreliable for uni | | | | | x | x | x | | x | | | | | | x | | | | x | x | | |
| Audio failed | | | | | | | | | | | | | | | | | | | | | | |

Figure 19: Interview males – information-seeking behaviour, Wikipedia use

| | 572 LC/LU | 87 LC/LU | 336 av/LU | 423 av/LU | 99 av/LU | 32 LC/LU | 17 av/HU | 200 av/av | 615 LC/HU | 443 HC/av | 312 HC/av | 599 HC/av | 861 HC/LU | 687 HC/LU | 313 HC/HU | 872 HC/HU | 141 HC/HU | 319 HC/av | 142 av/HU | 698 HC/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yes | | x | x | x | | | | | | | | | x | past | | x | | x | | |
| Sometimes | | | x | x | | | x | x | | | | x | | | | x | | x | | |
| Don't cite it | | x | | | | | | | x | | | x | | | | x | | x | | |
| Starting point/general reference | | | x | x | | x | x | x | | x | | | x | | | x | | x | | |
| Find and use links to information | | | x | x | | | | | | | | | | | | x | | x | | |
| For academic use, reliable information | | | | | | | | | | | | | | | | x | | | | |
| Yes - for personal use | | | | | | | | | | | | | | | x | | | | | |
| Wikipedia editor | x | | | x | | | | x | x | | | | x | | | | | | | |
| No/Not allowed to use for uni | | x | x | | | | x | x | | x | | | x | x | | x | | | | x |
| Unreliable for uni | | | | | | | | | | | | | | | | | | | x | |

Figure 19: Interview females – information-seeking behaviour, Wikipedia use

All participants are using keyword searching techniques exclusively. Participants' consistently responded when questioned about their method that 'it works for me', 'guess it's habit' and 'if it ain't broke why fix it?' These responses indicate that the participants in this group have a defined culture of use when seeking information on the Web using search engines. They also transfer this culture of use when searching for information elsewhere, even after receiving specific instruction on how to search for information using other techniques. Hence, they are also using keyword searches in the closed system of the university databases (if they are using them), and Wikipedia.

| | 699 LC/LU | 688 LC/av | 231 av | 53 av/LU | 689 av/LU | 322 av | 41 av | 450 av | 377 av | 753 av | 638 av/HU | 736 HC/HU | 647 av/HU | 629 av | 817 HC/HU | 845 HC/HU | 946 HC/av | 922 HC/av | 639 HC/HU | 92 HC/HU | 402 HC/HU | 519 av/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yes, always | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Works for me – habit | x | x | x | x | | | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Easy - one method | | x | | | | | | | | | | | | x | | | | | | | | |
| Reliable, esp Google | | | x | | | | | | | | | x | | x | | | | x | | | | |
| Google - simple, uncluttered interface | | | | | | | | | | | | | | | | | | x | | | | |
| No | | | | | | | | | | | | | | | | | | | | | | |
| Audio failed | | | | | | | | | | | | | | | | | | | | | | |

Figure 19: Interview females – information-seeking behaviour, culture of use

| | 572 LC/LU | 87 LC/LU | 336 av/LU | 423 av/LU | 99 av/LU | 32 LC/LU | 17 av/HU | 200 av/av | 615 LC/HU | 443 HC/av | 312 HC/av | 599 HC/av | 861 HC/LU | 687 HC/LU | 313 HC/HU | 872 HC/HU | 141 HC/HU | 319 HC/av | 142 av/HU | 698 HC/HU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yes, always | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | | x |
| Works for me – habit | x | x | x | x | x | | | x | x | x | | x | x | x | x | x | x | x | | |
| Easy - one method | | | x | x | | | x | | x | x | | x | x | | | | | | | |
| Reliable, esp Google | | | | x | | | | | | | | | | | | | | | | |
| Google - simple, uncluttered interface | | | | | | | | | | | | | | | | | | | | |
| No | | | | | | | | | | | | | | | | | | | x | |

Figure 19: Interview females – information-seeking behaviour, culture of use

Another interesting result from the interviews is how these members of the Net Generation are using social networking sites. Students are using social networking sites such as MySpace and FaceBook as an alternative to email (some even described their use in these terms). They rarely diarise and publish about themselves in any depth (the small number of

students who do, admitted to exaggerating their profile information for fun). Rather, they use the technology to keep in contact with established or previous friendship groups (friends from primary school with whom they have lost contact). Only one student used it regularly to contact outsiders and this student admitted to having some bad experiences (illegal activities) when younger (under-age) when he 'got in with the wrong crowd'. Participants are using the social networking sites as an alternative to email because it provides a centralised space that is more protected from spam email and as an alternative to chat/msn because they have more control over their time. When communicating in MySpace or FaceBook there is not the expectation of an immediate reply. Several respondents indicated that friends did not get offended about a lack of immediate response when using the social networking sites for communication as much as when using real time communication such as msn or chat or even email. Fifty percent of the interviewees are not using and have never used these sites. A number of respondents indicated that they used to use the social networking sites, but have now moved on and don't use them any more due to different time commitments, work and study. One student stopped using them because she found the sites became a forum for animosity between different friends/ship groups, a situation over which she had limited or no control. Most students also limit the access on their social networking sites and only communicate with people they know or have known in the past. They are not politically active nor are they socially inclusive when out on the Web.

This adaptation of technology is an indication that this generation are discerning users. They will adapt the technology to suit their needs and move on when it is no longer useful or their needs change. As teachers we are continually being exhorted to get into their (students') space, as everyone is social networking. This type of reasoning is corporate driven and if the results from this study are an accurate snapshot of how this generation are using social networking sites, then perhaps we need to rethink why we would want to use them in the classroom.

## Conclusion

Confidence is perhaps the key to understanding how this generation use technology, an aspect the Net Generation theorists observed and postulated on at such length. They misinterpreted confidence and assumed that this also translated into intentional, meaningful and effective information-seeking. The students are confident which means they are using the Internet on a daily basis, even those who are less confident. This confidence may be what the Net Generation theorists got right and is borne out of familiarity with the technology. The technology is a ubiquitous part of their information landscape and something they have never been without. Even if they dislike using technology, they still use it and with confidence. This confidence also means that they will try new technologies. This attitude towards technology also means they use it in a discerning manner, and pick and choose technologies that suit their needs at a particular time. Hence, participants report that their usage patterns have changed, as their lifestyle and information needs have changed. This explains why the levels of use in the Web survey were quite low, as the metric was based on the Net Generation theory which postulates that the Net Generation uses a wide range of technologies. This is not the case. They use technology to be connected more than anything else, and they use it for entertainment. They use it for finding information when the need arises and they have acquired a culture of use when seeking information via electronic means.

While the technology is playing a part in the development of this culture of use, it is also being driven by the fact that students are being left to learn their information-seeking skills on their own by experimentation. This lack of formal information-seeking skills

instruction is due to the fact that educational administrators and teachers believe the myth promulgated by the Net Generation theorists and assume that students (Generation Y = digital natives) already have the skills to locate information using electronic resources, and to interrogate and consequentially use this information to meet their needs. The assumption that students have the skills to locate information in the virtual environment simply because they are familiar with technology and confident about using it, has meant that information-seeking behaviour amongst members of the Net Generation is unsophisticated, demonstrates a culture of use that is hard to change and the result of a lack of formal information literacy education. They have poor Internet literacy skills, rely on keyword searching, trust search engine results and as a consequence, exhibit a high level of satisficing. This generation's lack of understanding of how the Web works coupled with high levels of confidence, means they often fail to realise they don't know and assume that if they can't find it on the Web then it doesn't exist. If schools don't take steps to teach this generation of students how to use electronic sources effectively, then our future citizens will be unable to operate in a world where information is the key to educational, social and economic success. The world and technology will continue to move forward and the information landscape will become more complicated, overloaded and dense, as business and government place everything including service delivery online. The Net Generation and those who follow, however, will remain lost forever in virtual space.

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## *Biographical notes*

Barbara lectures for the School of Computing and Information Science at Edith Cowan University, Western Australia. Her major research interest areas include the role of teacher librarians in education, plagiarism, online learning and distance education particularly for first time users, information literacy, policy and planning. Barbara's PhD research is examining the information-seeking behaviour of the Net Generation. She has published in a number of journals, presented at conferences worldwide and is the Vice President Advocacy and Promotion for the IASL.

## Statement of Originality

# Appendix 1

| Correlation Matrix: Net Generation | |
|---|---|
| *Confidence (Affective Domain)* | *Q5 Self-evaluation/rating* |
| Q1 — Use for study prior to university | p<0.0005, r = 0.458685 |
| Q2 — Use of online study materials prior to university | p<0.0005, r = 0.463205 |
| Q3 — Personal use for study prior to university | p<0.0005, r = 0.492579 |
| Q8 — Level of personal use | p<0.005, r = 0.277726 |
| Q9 — Length of time using the Internet | p<0.005, r = 0.291835 |
| Q10iv — Buying and selling | p<0.005, r = 0.278185 |
| Q14i — Use for study | p<0.005, r = 0.26003 |
| Q14ii — Communication – family/friends | p<0.005, r = 0.275997 |
| Q14v — Planning and organisation | p<0.005, r = 0.282334 |
| Q14vi — Entertainment | p<0.005, r = 0.287442 |
| Q15i — Ability to find information | p<0.0005, r = 0.33586 |
| Q15iv — Ability to organise information | p<0.005, r = 0.289029 |
| Q15v — Ability to store information | p<0.005, r = 0.27841 |
| Q15vi — Ability to find information again | p<0.0005, r = 0.321041 |
| Q16vi — Like using for entertainment | p<0.005, r = 0.271187 |

Table 1: Correlation coefficients and level of confidence

| Correlation Matrix: Net Generation | |
|---|---|
| *Levels of use (Effective Domain)* | *Q8 Use/personal* |
| Q10iv Buying and selling | p<0.005, r = 0.268393 |
| Q10v Planning and organising | p<0.005, r = 0.270928 |
| Q10vi Entertainment | p<0.0005, r = 0.54005 |
| Q11iv Communication – msn or chat | p<0.0005, r = 0.482838 |
| Q11ix Peer-to-peer file sharing | p<0.005, r = 0.392496 |
| Q11xi Web blogs | p<0.0005, r = 0.299964 |
| Q17 Gender - male | p<0.001, r = 0.271107 |

Table 2: Correlation coefficients and levels of use

| Correlation Matrix: Net Generation – | |
|---|---|
| *Gender* | *Q17 Gender (males)* |
| Q8 Personal use per week | p<0.005, r = 0.271107 |
| Q10iv Buying and selling on the Internet | p<0.001, r = 0.30845 |
| Q11ix Use peer-to-peer file sharing | p<0.005, r = 0.327595 |
| Q13xii Books/magazines for skills | p<0.005, r = 0.275877 |

Table 3: Correlation coefficients and gender (male)

# Information Seeking Behaviors of Children and Youth: Challenges and Implications for Information Literacy Instruction
## A Review of the Literature

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*Research indicates that technological advances are changing the ways people are searching for, finding, and using information for personal, professional, and educational purposes (Bernier, 2007; Heath, 2007; Perrault, 2007). Human information behavior encompasses people's information needs, information seeking behaviors, information contexts, patterns of information access, retrieval, processing, and use (Todd, 2003).*

*An emerging area of human information behavior is the information seeking practices of youth. Research suggests the need for educators to adapt instruction and refine students' Information Seeking skills and foster advanced information literacy (Branch, 2003; Dixon & Shenton, 2005; Kulthau, 1994, 2003; Hultgren and Limberg, 2002; Laverty, 2003; Leu and Kinzer, 2000; and McGregor, 1994).*

*Information seeking behaviors, Information Literacy Instruction*

## Introduction

Research indicates that technological advances are changing the ways people are searching for, finding, and using information for personal, professional, and educational purposes (Bernier, 2007; Bilal, 2001; Heath, 2007 and Perrault, 2007). Human information behavior encompasses people's information needs, information seeking behaviors, information contexts, and patterns of information access, retrieval, processing, and use (Todd, 2003).

An emerging area of human information behavior encompasses people's information needs is the information seeking practices of children and youth. Research suggests the need for educators to adapt instruction to refine students' information seeking skills and to foster advanced information literacy (Branch, 2003; Dixon and Shenton, 2005; Kulthau, 1994, 2003; Hultgren and Limberg, 2003; Laverty, 2002; Leu & Kinzer, 2000; Leu, Kinzer, Coiro, & Cammack, 2004; and McGregor, 1994). Critical findings from the literature, for instance, indicate that (a) cognitive, emotional, and social development levels impact the information seeking skills and strategies of children and youth (Gross, 2000; McGregor, 1994); and (b) levels of skill practice and Information System design impact the overall effectiveness of children's and youth's Information Seeking skills. Findings also indicate that adults may fail to recognize or take into account the differences between the Information Seeking behaviors of children and youth and their own Information Seeking behaviors (McGregor, 1994). Finally, the literature indicates that proper instruction and instructional intervention(s) are critical for student mastery of Information Literacy and Information Seeking skills. In order to employ appropriate instructional strategies that best meet the needs of today's children and youth, it is essential that educators first develop awareness of whom these children and youth

are and are their developmental stages, their unique information needs and demands, and their information seeking behaviors. Accordingly, the purposes of this literature review are to provide a profile of Generation Y (students born between 1980 and 1994) as it pertains to their information needs and information seeking behaviors; to identify the nature and scope of Information Seeking behaviors among children and youth; to identify instructional strategies available to educators and librarians to better meet child and youth information needs; and to identify research areas warranting further exploration.

## Profile of Generation Y: Engaged in Multimodal Literacies

Unprecedented advances in technology are requiring users of information to reconsider and even reformulate the ways they find, analyze, synthesize, and use information (Bernier, 2007; Bilal, 2001; Heath, 2007; and Perrault, 2007). A Pew Research Foundation study (2005) asserts, "Today's American teens live in a world enveloped by communications technologies; the internet and cell phones have become a central force that fuels the rhythm of daily life" (n.p.). The National Council of Teachers of English (2005) supports the assertion and makes its own claim that, "learning is increasingly defined by multimodal literacies" (n.p.). Technology is requiring today's students (Generation Y, or those students born between 1980 and 1994, and beyond) to acquire skill sets which surpass "traditional" research strategies and move into previously unknown territories and use a culmination of print, electronic, and digital media to create information products.

## Literature Reveals Differing Perspectives

Amid changes in information and in Information Seeking behaviors, there have also been differing perspectives or opinions regarding the effectiveness of Information Seeking behaviors among children and youth. While some educators posit beliefs that children and youth possess strong Information Literacy and Information Seeking skills, others question students' Information Literacy and Information Seeking skills.

Linking educators' concerns regarding Generation Y's Information Seeking skills to commentary among researchers and academe (Weiler, 2005) cited several criticisms of Information Seeking skills among children and youth. The first of the criticism surrounds the idea that student critical thinking and other cognitive skills (not to mention physical well-being) are suffering from the large proportions of time children and youth are devoting to sedentary pastimes and passive absorption of words and images. Sedentary pastimes and over reliance on "copying and pasting" information, critics argue, are robbing the nation's youngest information seekers of time that should be spent reading and engaging in creative, critical thinking. The group argues that Generation Y students, in particular, have a seeming lack of regard for research and for the procurement of skills that our society has previously deemed imperative for successful knowledge development. It further appears, according to the group, that Generation Y students lack both intrinsic and extrinsic motivation to complete tasks and are consequently trading traditional research processes and (even more significantly), critical thought and inquiry for the quickest and easiest route to solving information problems. Rather than scouring peer-reviewed, scholarly sources in search of information or working to gain in-depth knowledge and understanding a topic, today's students are opting for so-called quick and easy alternatives, including now-infamous Internet searches, and even casual chats with friends and peers (especially the peers and friends with whom the students feel they are likely to find commonality of opinion) (Weiler, 2005).

Meanwhile, citing evidence from educators who believe that children's and youth's information seeking skills are strong, Joy McGregor (1994), questioned critics' assertions of weakness among today's young information seekers and poses the following question: Is it really possible that technology and the need to be "connected" to these technologies are usurping intrinsic motivation and critical thinking skills? Or is it possible that while students do in fact engage in critical thinking, their thought patterns differ from those "experts" typically associate with critical thinking among adults and are therefore somehow overlooked? In McGregor's research, findings indicate that students do indeed engage in critical thinking and inquiry but that the thought patterns are not always recognized as such because thinking is typically an intuitive process for students at various levels of cognitive levels. Thusly, students are often unaware of their own critical thinking efforts and may fail to acknowledge methods of thinking which could be more productive. Such findings, McGregor asserts, could lead to the conclusion that student failure to think critically does not reflect an absence of willingness or ability to engage in critical inquiry. Instead, the author finds that a failure to engage in critical thinking could be linked to cognitive development. In the same study, McGregor also found that "the nature of questions instructors asked in assignments influenced the complexity of thought involved in using the information" (1994, p. 74). The finding that what educators or researchers perceive to be a lack of critical thinking or an inability of students to think critically is may in fact be a lack of skill or an inability of educators to formulate clear, stimulating questions.

Also an advocate for youth and a proponent of the belief that children and youth have strong Information Seeking skills, Anthony Bernier (2007) credits the "changing face of information" with discrediting youth Information Seeking abilities and skill levels. Bernier asserts the possibility that, in educators' efforts to understand children and youth and their Information Seeking behaviors in academic settings, we have somehow reduced young people to "one dimensional beings" who lack depth or are intellectually inferior to their predecessors. Then, citing studies from the Pew Research Foundation (2005), the author postulates that technology is changing the face of information and is requiring that people change the ways we disseminate and use information. As the generation proving themselves to be the most familiar with and most adept at using emerging technologies, Bernier believes, youth are among the most capable of seekers and users of information. Furthering his point, the author identifies today's youth as the new leaders of information. He goes so far as to say that any perceived skill weaknesses among the group are consequences not of substandard critical thinking skills or "laziness," but rather a lack of understanding from older generations regarding the "new face of information" and the new definition of effective information seeking.

Taking the findings of these youth advocates into account, it is plausible that, in our own efforts to label and disseminate information seeking among youth, we (educators) fail to consider students' individual, cognitive, developmental, social, and cultural needs of our students. Because the face of information and Information Seeking behaviors are changing at such drastic levels, it is also possible that our own insecurities over changes in the Information Age have contributed to misunderstandings of what Information Seeking requires and to misunderstandings of what effective Information Seeking skills or strategies require. Dixon and Shenton (2005) suggest that criticisms of children's and youth's Information Seeking skills result from a lack of understanding among older generations of what children and youth want, need, and expect from research.

**Key Findings from the Literature: The New Face of Information Brings Attention to the Need for a New face for Information Literacy Instruction**

In their research, Branch (2003) and Kulthau (1994) indicate that proper instruction and instructional intervention(s) are critical for student mastery of Information Literacy and Information Seeking skills. Multiple components contribute to effective Information Literacy and Information Seeking instruction, including: (a) educators' understanding of students' cognitive, emotional, and social developmental levels (Gross, 2000; McGregor, 1994); (b) effective integration of practice and hands-on activities; (c) adult / educator recognition that the Information Literacy and Information Seeking behaviors of children and youth differ from their own (McGregor, 1994). Dixon and Shenton (2005) assert that the first step to effective Information Literacy and Information Seeking skill instruction is educators' understanding of what children and youth want, need, and expect from research. Secondly, identifying how Information Literacy is to be achieved within curriculum guidelines is critical (Laverty, 2002; Small, 1998). Bilal (2000, 2001) found that appropriate system design (i.e., implementing system design in Web search engines is critical to information seeking among children) and advocated changes in system design to better meet children's developmental needs. Meanwhile, Kulthau (1994; 2003), Laverty (2002), Small (1998) and Todd (2003) all identified additional specific instructional strategies available to educators and librarians to better meet youth information needs.

Identifying several well-established theories and concepts of motivation and applying them to Information Literacy Instruction, Small stressed how imperative stimulating students' intellectual curiosity and awakening students' desires to seek information are to effective instruction. According to Small, when educators employ intrinsic motivators in instruction (i.e. explain the importance of a learning task to students or help them relate the learning task to their personal needs and experiences), there is typically a higher rate of on-task behavior. In accordance with other findings of her study and studies she cites, Small also suggests the following instructional strategies: (a) focus on student effort and ability and use research skills to achieve related learning objectives; (b) create an environment that is both supportive and challenging for students but that matches challenges to one's skill level; (c) reduce student anxiety levels, thereby freeing students to maintain focus on the task at hand; (d) provide meaningful learning objectives; (d) maintain student expectations for success; and (e) match extrinsic and intrinsic motivators to student developmental levels. Kulthau (2003) and Laverty (2002) advocated engaging students in inquiry-based and resource-based learning and activities. Finally, and perhaps most significantly, Kulthau, 1994, 2003; Small, 1998; and Todd, 2003, stressed the importance of collaborative planning and implementing lessons with the classroom teacher and / or the school library media specialist.

**Conclusions and Areas for Future Research**

Technological advances in the Information Age are changing the ways people are searching for, finding, and using information for personal, professional, and educational purposes (Bernier, 2007; Bilal, 2000, 2001; Heath, 2007; and Perrault, 2007). Thusly, it is becoming increasingly apparent that educators must adapt instruction to refine students' Information Seeking skills and foster advanced Information Literacy (Branch, 2003; Dixon and Shenton, 2005; Kulthau, 1994, 2003; Laverty, 2002; Hultgren & Limberg, 2003; Leu & Kinzer, 2000;

Leu, Kinzer, Coiro, & Cammack, 2004; and McGregor, 1994). Perhaps Dervin and Nilan stated conveyed this reality most eloquently of all when they said, "It becomes increasingly clear that the success of information services is more likely to be achieved through adjusting the services to meet the specific needs of an individual rather than trying to adapt the individual user to match the wholesale output of the information system" (Dervin and Nilan, 1986, p. 7, as cited by Todd, 2003). Accordingly, areas of future research could include the following: (a) the effects of pre-service and continuing education on instructional effectiveness; and (b) Information Seeking and Information Literacy instructional strategies for differently able children and youth.

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## *Biographical Notes*

Clayton A. Copeland is currently a Ph.D. student at the University of South Carolina's School of Library and Information Science. First inspired by her elementary school librarian, Clayton's current research and research interests involve library services to children and youth, information seeking behaviors of children and youth, and library services to differently-able populations and underserved populations.

## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Title: Ruling Relations and the School Librarian
# Subtitle: An Institutional Ethnography

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*The work of a school librarian is shaped by relations seen and unseen. Problematizing the effects of these relations on the institutions of education, librarianship, and school librarianship can lead to a greater understanding of the work of the librarian. I will use institutional ethnography methods to investigate relations of education, librarianship, and school librarianship Institutional ethnography has been used to investigate the coordination of activities in other human services, but institutional ethnography has not yet been applied intensively in educational settings (Smith, 2005). Institutional ethnography can be used as a method of inquiry into the work of people in educational settings.*

## Introduction

The work of a school librarian is shaped by relations seen and unseen. The work is governed in part by the relationship the school librarian has with administrators and teachers within the school, but these relationships are also coordinated by unseen and unobservable forces. These forces might be taken for granted, but problematizing the effects of these forces on the institutions of education, librarianship, and school librarianship can lead to a greater understanding of the work of the librarian.

I will use institutional ethnography methods as described by Dorothy Smith, including interviews, focus groups, textual analysis, and participant observation, to investigate relations of education, librarianship, and school librarianship (Smith, 2005). I am particularly interested in the librarian's place at an intersection of institutions with varying rules. Institutional ethnography methods use the actual experiences of people to examine unseen or unobservable relations governing institutions. These unseen relations might have a great effect on the perceived importance and effectiveness of the school library. That perceived importance and effectiveness is one element governing the librarian's access to students, classroom time, and funding. The librarian is a key defender and representative of the library. School libraries are often vulnerable to budget cuts because the librarian's perceived effectiveness is sometimes used to assess the value the library itself brings to the school (Hartzell, 1997; Johnson, 2003). From the beginning, school libraries in the United States have been vulnerable to budget cuts and closures (Department of the Interior, 1876). Despite their work and training in literacy and education, school librarians are largely absent from the

literacy discourse, with the exception of discourse by librarians for librarians. Decisions made at federal and state levels have continuing repercussions for librarians, such as a decision by federal officials in the 1950s to classify school librarians as support staff (AASL, 2006). Who makes those decisions and how do they affect the school librarian?

Institutional ethnography has been used to investigate the coordination of activities of nurses, mall surveillance camera operators, and people with AIDS, among other populations, but institutional ethnography has not yet been applied intensively in educational settings (Smith, 2005). The work of people in educational settings is coordinated by unseen relations, which can be discovered using institutional ethnography as a method of inquiry.

Institutional ethnographers are interested in the trans-local and extra-local and their influences on the embodied local life of people. A school librarian is an embodied human in a location: the library within a school, but the librarian's work is also affected by decisions made in other locations, including the city council, the school district, the state educational organization, the state legislature, and the federal government. In many countries, similar organizations coordinate the local embodied work of school librarians.

Institutional ethnography is not a theory, but a method of inquiry. It does not seek to explain the embodied experience, but to explicate it. "It is a method of inquiry into the social that proposes to enlarge the scope of what becomes visible from that site, mapping the relations that connect one local site to others"(Smith, 2005, p. 29). Individuals are the experts on their own lived experiences, but to understand the relations organizing everyday life, the institutional ethnographer needs to go beyond the everyday life of one individual. The institutional ethnographer might begin with the lived experiences of one person, but will need to expand the inquiry to other people or other sites. An institution is more than just a building. It is a collection of texts, expectations, social relations organizing the work of those involved in the organization. "These relations coordinate the work of people at one site or at multiple sites. Institutions are functional complexes within the ruling relations—schools, universities, hospitals, mass media, corporations, and so on. Their standardized, generalized modes of existence rely on the replicability of texts. They are both where you are in your body and they connect you with elsewheres and elsewhens. They connect you with the subjectivity and objectivity of others" (Smith, 2007).

Institutional ethnography does not begin with a theory per se. Rather, it begins with framing the problematic. The problematic is not "the problem." It is a way of examining daily work without taking any of it for granted. Rather than assuming things are the way they are because that is how it is, making the work problematic tries to examine how things came to be the way they are.

The work of the school librarian is most certainly organized elsewhere in ways that are often taken for granted. Schedules are coordinated in conjunction with curricular needs, which are determined at multiple levels by various individuals and institutions. Curriculum choices are governed by local, state, and country agencies and designed to meet the demands of employers, governments, and institutions of higher learning. Schedules are adjusted for high-stakes assessment testing. These factors are taken for granted, rather than analyzed for their influence on the work of the school librarian.

The work of the school librarian, if done well, is largely invisible to teachers and students. Some of the school librarian's work, such as evaluating books, is often seen as leisure activity by others. Articles dispensing advice for school librarians ignore the trans-

local and extra-local relations coordinating the school librarian's work and assume a level of self-governance that does not exist.

The title of the person who acts as a librarian in a school setting is used to convey meaning. The titles include librarian, school librarian, teacher-librarian, and school library media specialist in the US. For the purposes of this paper, I will refer to this person as a "librarian." In future presentations, I will use the preferred title of the participant(s) in the ethnography. The choice of titles is coordinated outside the school library as well. My preferred title of school librarian is coordinated in part by my education first as a librarian, second as a school librarian. School librarians who enter the profession after working in classrooms might prefer the term "teacher-librarian." The choice of titles might affect the way the librarian is viewed within the structure of the school.

Institutional ethnography developed as a method of inquiry from Dorothy Smith's understanding of problems with traditional sociology. "…[S]ociology has taken the perspective of the institutional process that organizes the world as it appears for those whose professional business it is"(Smith, 1987, p. 63). Traditional sociological methods examine problems in a way that takes for granted the dominant point of view. Many studies in school librarianship examine how well the library's program supports goals set at an extra-local site. While reaching for goals is essential, studies that begin by taking the existence of these goals for granted cannot explain how the librarian's actions are coordinated. If the goals are seen as self-evident, rather than created, their coordinating effects on the work of school librarians might not be seen. This research will show how one school district's library system is affected by these unseen rules and relations.

*Methods*

This ethnographic inquiry will include several informal interviews with the teacher-librarian, at a location of the librarian's choice. In a pilot study, the school librarian chose to be interviewed at a table in her library. I will conduct informal interviews with people who work at the district and state level coordinating school library activities. I plan to have informal conversations with teachers and administrators regarding the school library, both as an institution and as an actual place in the school building. I will gather documents the librarian identifies as important to his or her job and analyze them as well, looking for signs of perceptions and decisions affecting the library. This study will include observation as well. As a librarian, I will be a participant observer in the school library, which will give me an opportunity to experience directly the effects of the rules. At the same time, the librarian and teachers will remain experts when it comes to their own situations, perceptions, and experiences.

The analysis of the interviews, observations, and texts will be fluid and on-going. The object of study is not the librarian or his or her behavior. Instead, the object of study is the librarian's place in the social relations of the school, the district, and the institutions, and how those social relations govern the librarian's work. "Rather than explaining behavior, we begin from where people are in the world, explaining the social relations of the society of which we are part, explaining an organization that is not fully present in one individual's everyday experience" (Smith, 1987, p. 89). As I analyze the data, I will share my perceptions with participants as a form of member checking and to be sure they have an important role in creating the ethnography. In my pilot study, I found a certain amount of resistance on my own part to sharing my observations with the participant. I felt vulnerable, as if I were

risking exposure by sharing my analysis. Using this methodology strips away the idea of the researcher as an expert. It places the researcher as a human being at the site interacting with other human beings.

The chosen district was selected on the basis of accessibility to me as a researcher. I am deliberately not choosing a site based on measurements of achievement in education or in librarianship. It might turn out that the district I have access to is a district with a library system that is considered successful. However, those measurements of achievement are not key to my ethnographic approach. Many other studies focus successfully on model libraries, but this study has a different purpose. I am not looking for explanations for why a library is successful. Rather, I am interested in a picture of the experiences of the school librarian.

Key questions that will guide the research at the beginning include: who makes decisions about the school library? Is the school library considered when administrators make decisions affecting the school community as a whole? How does the librarian participate with teacher colleagues in non-instructional tasks? Why did the librarian choose this career? How is the library presented to students? What happens when students are in the library? (For example, does the librarian stay in his or her office while the classroom teacher provides reader's advisory and reference help? Or are the students dropped off while the classroom teacher goes elsewhere?) What is the role of the librarian? Since this research is not just investigating social relations within the building, I will also look at the library's relationship with decision-makers in the local community, at the district level, and at state level. I will also look at the librarians' relationships with national education, literacy, and library associations. More questions will come up in the course of the research.

*Ethical Concerns*

Through the course of the research, I will work to be sure the participants are not harmed by this study. Information about the participants will be confidential. Identifying information about the school will be removed or obscured. I will carefully consider the implications of quotations, understanding that despite my efforts to protect the participants, people at the site will be aware of the research and will have access to publications discussing the research. Institutional ethnography brings a special set of challenges when it comes to protecting the participants. The methodology is based firmly in the local, lived experiences of human beings. The experiences of the participants are the key information in the study. Therefore, the participants might be easily identified, even if I choose to present the work of the librarians themselves anonymously, pseudonymously, or collectively. The participants must know of this risk. The risk of exposure and my priority of protecting the participants might result in stifling or stymieing some inquiry or analysis. Although I know full protection of the identity of the participants is impossible with this methodology, I will make every attempt to protect them as fully as possible. Indeed, as I write the text, I will work from the assumption that my participants are identifiable, in order to avoid publishing information that would embarrass or injure them.

This research will also be shaped by the Institutional Review Board, a system put into place in U.S. universities to try to prevent malfeasance in research involving human subjects. In the past four years as a library student, then a doctoral student, I have had the opportunity to participate in several coordinating activities, including being involved in school library curriculum decisions and attending district-wide and state-wide meetings. I have worked with school librarians formally and informally and have close relationships with several of

my library school classmates who are now school librarians. While these experiences inform my research and my framing of a problematic, they are not considered acceptable for inclusion into published literature.

Lederman points out IRB procedures take for granted a certain way of conducting research. She argues the "Common Rule," the U.S. federal regulation upon which IRB procedures are based, "presupposes biomedicine's distinctive harms and benefits, typical research protocols, and background assumptions concerning the agents and objects of study," yet the regulations have been applied to research outside biomedical fields (Lederman, 2006). These regulations, in fact, shape research, not just in biomedical fields, but in social sciences. The rigid structure of the IRB process excludes research emerging from observation and analysis. The IRB structure also shapes and coordinates the researcher's relationship with the participants. For example, in order to submit an IRB proposal at my institution, one must submit a letter from the site saying the researcher has gained access to the site. Researchers must gain access to the gatekeepers of the site before gaining access to the site. However, after access has been granted, the researcher and potential participants must still wait to learn whether the proposal itself will be approved. A proposal that is denied could lead to inconvenience for gatekeepers and potential participants and embarrassment and loss of goodwill for the researcher.

## Conclusion

The focus is on beginning to understand how ruling relations affect school librarians. An understanding of these relations can help librarians and researchers understand ways to coordinate their work within their institutions and to play an active part in decisions governing their work. These concepts can help librarians look at their own institutions and their place in those institutions in order to understand the effect of unseen ruling relations on their work. In the future, I plan to expand the study to look at the effect of ruling relations on students using the library.

I will discuss my methodology and preliminary findings, along with plans for continuing the research. As this research will take place in a school district in the Midwestern United States, my discussion will have a distinctly U.S. character, but I hope it will also help school librarians outside the United States understand the conditions of their colleagues and perhaps discover more about their own ruling relations.

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## *Level 4 heading (Biographical Notes)*

Jennifer Crispin studies school libraries, with a special interest in literacy and library materials for youth. She earned her MLS from the University of Missouri in 2006. She earned a Bachelor of Arts in English from the University of Maryland University College, where she studied in classrooms in Korea, Germany, and Italy.

## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# NEXUS: A School Based Approach to creating a Centre for Advancing Learning Excellence.

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*The restructuring of the Library at The Hills Grammar School in 2007, has provided a broader concept that links and connects the whole school community (students, teachers and parents) through research, knowledge and learning involving a wide range of collaborative practices and information communication technologies. A deliberate renaming of both the Library to NEXUS and the title of the Teacher Librarian 7-12 to Faculty Liaison Teacher Librarian was necessary to intentionally shift the mindset of staff away from the traditional Library paradigm to reflect the collaborative nature of the newly established centre and to provide the catalyst for change.*


*ICT Integration; collaborative practices; learner-centric teaching*

## Introduction

The Hills Grammar School, located in Sydney's northwestern suburbs, is an independent, K-12, co-educational, non-denominational school with an enrolment of approximately 1200 students. The school's mission is to be a national leader in co-education,

at the forefront of educational endeavour, where each student is encouraged to strive for excellence in scholarship, personal development and citizenship.

In moving towards this realisation, a review of our K-12 Library was conducted in 2006 to measure the strength of our school library as compared to other competitive leading independent schools in Sydney. The findings highlighted the falling use of the facilities and resources in our library by both senior school (Years 7-12) students and staff and a real need to move forward to meet the ever increasing challenges of education in the 21$^{st}$ century. Some research suggests that the impact of the school library diminishes as students move through high school (Burks 1999; Lance 2001b). As a result, the unique opportunity arose to make a positive intervention designed to enhance student learning and raise the profile of the school library. At the start of the 2007 school year, with the Principal's full support for the initiative, the Library Department was restructured to include specialised Information Technology services, by combining the expertise and provisions of the existing Library with those of the ICT Department. This new vision, to replace the old Library paradigm, involved the establishment of a centre, NEXUS, to focus on new ways of learning, knowledge creation and research skills while maintaining library services as a component. The programs currently on offer within NEXUS include:

K-4 Library Program

Information Literacy Years 5-12

Information Technology Integration Years 7-12, including Multi-Media

Professional Learning K-12

Scholarship Program Years 7-12

Careers and Tertiary Awareness

Online Learning

As the school library research builds, we see strong and compelling evidence that school libraries are engaging places in the lives of our students, and at the same time we see challenges ahead where much needs to be done. These challenges take us beyond traditional notions of the 3 R's (reading, writing, and numeracy), as long standing conceptions of information literacy. They focus our thinking on building a knowledge-based society, and the understandings and actions that will enable our students to get there. The challenge for us is to shift the emphasis from information centric to embrace a powerful vision of knowledge centric. This is a whole school approach with support needed by all stakeholders to ensure the best learning opportunities are provided for our students. This paper focuses on exploring the pedagogical challenge presented: how can we achieve this?

## Rationale

In order to facilitate curriculum practices which establish closer connections and collaborative practices between Library services and classroom teachers, NEXUS has integrated ICT into teaching programs to strengthen resource-based enquiry learning by promoting active learning through students' confrontation with information resources. This

integrated approach allows us to guide students meaningfully through their information inquiries to develop deep knowledge and deep understanding of their topics.

Information communication technology (ICT) provides unprecedented opportunity for collaboration, autonomous work and cross-curricular projects. The knowledge economy dictates that we, as educators, need to continually remain informed of new technologies and their implications in the educational environment. We are entering a new interconnected, networked world where more and more people are gaining access to the Web and its ever growing body of knowledge. Its effects, in an educational context, inspire and challenge us, as teachers, to think differently about our classrooms and the potentials of the new digital technologies in terms of pedagogy and curriculum. Research acknowledges the work of the classroom teacher is greatly enhanced when they can collaborate with an information specialist in their planning of curriculum and associated assessment tasks. A major component of this ICT Integration program has been the professional development and training of staff in the planning, preparation and presentation of lessons using blogs, forums, wikis, podcasts and many of the emerging Web 2.0 technologies. Liseo has been able to measure and monitor the levels of skill development and subsequent integration of ICTs into program development of the participating staff at The Hills Grammar School. Teachers have to be prepared for questions relating to students' ICT use and those that related specifically to the subject content whilst applying Information Literacy elements to their work. This increase in knowledge, skills and understanding shows direct transference into the variety of new learning opportunities these teachers can now provide to cater for the diverse range of student abilities and learning styles of their students. It also underpins all teaching and learning programs as teachers see ways to directly link ICT integration to syllabus outcomes and assessment tasks. It is this shift in thinking that has been so exciting and rewarding. From the outset, it was recognised that in order to be successful, we had to take a collaborative approach to teaching and a constructivist approach to learning. There is no doubt that constructivism has had a marked impact on teaching and learning practice. This theory suggests that in learning, students build on what they already know and actively immerse themselves with a range of resources.

To support the notion of strong collaboration, the job description and subsequent title of our traditional teacher librarian (Teacher Librarian 7-12) was intentionally restructured to typify the more contemporary and evolving role of faculty liaison. Through this partnership, our newly titled Faculty Liaison Teacher Librarian is in a better position to identify opportunities for learning and improve access to information. The shift from a content-based education to an outcomes-based education also moves the focus from what students have been taught to what they have learned in terms of knowledge, skills and understandings. These changes in approaches to teaching and learning have required school librarians to adopt a more outcomes-focused practice and a focus on information literacy as opposed to a collections-based practice. Incorporating the role of Head of ICT Integration into the traditional Library paradigm has led the shift away from the stereotypical input such as, isolated library skill sets, selection of general resources, audiovisual facilities towards more meaningful input into user needs through information literacy and inquiry, multimedia and the development of new digital literacies, collaboration and curriculum integration. Students need to be actively involved in discovering and constructing their new understandings to meet both the curriculum outcomes and content standards.

To provide this collaborative context for the delivery of educational programs and to address the falling use of the Library by senior school students and staff, students in Years 7-9 were allocated a mandatory fortnightly lesson in NEXUS as either an additional English

lesson (Year 7) or Science lesson (Years 8/9) per timetabled cycle. This has allowed NEXUS Centre professionals and teachers to work together to integrate information resources and ICTs into their teaching programs. It was agreed that information literacy does not exist in a vacuum and for real learning to occur, information skills must emerge from the subject areas in which they are embedded. Information literacy provides the framework for recognising the need for, locating, evaluating and using information. Information literacy is the ability to confidently define, locate, and critically use information across a broad range of information sources and technologies. By working collaboratively, our goal was to bring together the specialised skills of the information professionals with the rigorous subject understandings and disciplinary knowledge and skills of classroom teachers.

An Action Research model was used to evaluate the success of establishing a collaborative working environment between subject teachers and NEXUS professionals for Year 7 English students. Further to the collaborative study, is the creation of assessment tools for tracking and assessing student learning outcomes in information literacy skills. This has led to the development of an operational skills program that can be utilized across faculties and will verify the success of the collaboratively devised information literacy program. Whilst we have established a Centre to advance learning excellence, we are mindful that we are merely a 'connection' or 'link' to what is happening in the classroom and in the computer lab. NEXUS is a springboard from which to leap into collaboration and best teaching practice whilst concurrently, raising the profile and prestige of our often under-rated library professionals.

## Methodology

Having identified a need for pedagogical change, to determine the success of these jointly planned, integrated Literacy lessons and whether there had been any significant growth in information literacy skills development, an Action Research methodology was used. We chose this methodology as it is often used in education to review existing practice with the view to improvement and is a tool frequently used to facilitate change. Being a cyclic process where action and critical reflection occur in turn, it afforded the opportunities to explore and test new ideas and assess the effectiveness of these. With the Year 7 English classes, the focus was more so, to determine the change in **student learning** whereas with the Years 8/9 Science classes, the aim was to determine the change in the delivery and mode of **teaching**, whilst recognizing that both areas overlap.

Schutz (2006) discusses Action Research as a valuable tool that indirectly improves student learning outcomes in information literacy. The report focuses on teaching staff gaining an understanding of the importance of collaboration between themselves and Library staff and the need for them to familiarise themselves with information literacy skills. These findings directly relate to this research which has found many teachers are uncomfortable with the teaching of information literacy and do not recognise the significance of information literacy skills as a prerequisite for lifelong learning.

Todd (2001) states the importance of Action Research in school libraries as a crucial tool for raising the profile of the Library/Information Services centre. This, too, is an important outcome for NEXUS. Todd (2002a, 2002b, 2002c) makes a strong case for librarians to undertake action research of their own, focusing on the key question of how the quality of student learning in their particular schools could be improved.

**Action Research Model**

Action Research is a social process for research, learning, action and reflection where the author acts as a Process Consultant, engaging in dialogue to encourage participants' cooperation, active participation and self-reflection according to Zuber-Skerritt (1991) and Masters (Masters, 2001).

This project draws on the practical application of Action Research which involves changes to the participants' awareness as well as change in social practices.

The following outline for Action Research is based on '*A thematic concern and four moments of Action Research*', whereby four fundamental aspects of Action Research were identified for this study:

The development of a critically informed action plan is essential to improve existing practices because it provides an environment that supports collaborative practices through theoretical and practical discussion. The anticipated outcome will be a shared discourse in which participants can analyse the situation to further develop and improve their knowledge and actions.

The Action Plan is implemented as a controlled practice. The action taken is observed and analysed which then forms the basis or starting point for developing the program. The plan needs to take into account the progressive needs of the students and teaching staff. Therefore, the plan needs to be suitably flexible and adaptive to accommodate any unanticipated outcomes. Risks that need to be considered include the potential effects of social change on existing teaching programs and classroom practice; and, the political dynamics which may arise within faculties and also between NEXUS professionals and teaching staff. A journal should be maintained throughout this process to record feelings, ideas, experiences, attitudes, comments and unexpected observations.

A critical aspect of Action Research depends on the researcher(s) being aware of the intended consequences and thus able to consider any unintended consequences, circumstances and constraints that arise from even the best planned Action Research implementation. Reflection on implementation needs to be followed by thoughtful discussion of how to further develop the plan to improve existing practices.

Of the five Year 7 English classes, specifically timetabled into NEXUS for one lesson per fortnight, four were selected for this study. This cohort numbered close to 100 students however, the top Honour class students were not involved. The methodology used for this research is based on the NSW Department of Education's, '*Exploring a standards-referenced approach for assessment in the new HSC-School based program in the school with a classroom colleague*'[1]. The learning package was devised for secondary teacher-librarians to engage with the information supporting Assessment for the New HSC. The aim of the NSW Department of Education is to undertake a collaborative project based on the principles of action learning to develop quality assessment tasks for Stage 6 (Years 11 & 12).  For the purpose of this study, this model was used as a guide and adapted for our use with Stage 4 (Years 7 & 8) students.

The approach was to embed the teaching of Information Literacy skills, as prescribed by the NSW Board of Studies English syllabus, into the class teacher's subject content and related assessment tasks, using the abovementioned NSW Department of Education assessment framework. The inclusion of information literacy skills development in teaching programs within schools is now a stated requirement in all Key Learning Area curriculum documents by the NSW Board of Studies (BoS). Unfortunately, the BoS has not provided any guidelines that define information literacy. The Council of Australian University Librarians (CAUL) published an accepted definition of information literacy for educational institutions, including secondary schools, which has been adopted for the purpose of this paper. The CAUL (2001) definition of information literacy is when a person is able to:

Recognise a need for information

Determine the extent of information needed

Access the needed information efficiently

Evaluate the information and its sources

Incorporate selected information into their knowledge base

Use information effectively to accomplish a purpose

Understand economic, legal, social and cultural issues in the use of information

Access and use information ethically and legally

Classify, store, manipulate and redraft information collected or generated

Recognise information literacy as a prerequisite for lifelong learning.

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[1] http://www.schools.nsw.edu.au/schoollibraries/teaching/schfocus.htm. (accessed on 23/08/2007)

To measure and evaluate the improvement in the students' levels of information literacy skills through collaborative planning, programming and teaching of lessons between the Year 7 English teacher(s) and assigned NEXUS teaching staff, and to concurrently measure the effectiveness of the teaching and the improvement in student learning outcomes, a tool was devised by Maley, as part of her Master of Knowledge Management research, to assess students' entry and exit information literacy skills based on the assumption that information literate students understand how knowledge is organised and how to effectively use information to learn. (This cohort will be tracked and monitored in subsequent years).

The objectives of the project were:

To identify and extrapolate the relevant Information Literacy standards component of the Stage 4 English Syllabus curriculum outcomes and integrate these with the lesson content;

To devise a defined set of marking criteria to assess Year 7 students' Information Literacy skills (pre- and post-instruction);

To conduct an evaluative study to monitor and track any significant changes to Year 7 students' Information Literacy skills.

To identify the elements that support successful collaboration between colleagues.

Following discussions with the then Head of Teaching & Learning 7-12 (also Technology teacher for Years 7-12 and former Head of Technology & Applied Sciences), it was noted that Year 7 students were already technologically savvy upon entry to Senior School and in many cases, their level of Information Technology literacy surpassed the Board of Studies (BoS) outcomes. From these initial discussions, it also emerged that classroom teachers were not comfortable with teaching information literacy because they did not understand its context and could not integrate the skills into their subject outcomes. Given their confusion, it is unlikely that successful programs could be developed in isolation by either classroom teachers or indeed, teacher librarians. It became apparent that programming needed to be constructed in joint collaboration with clearly defined information literacy standards to be taught.

Kuhlthau and Todd (1996) discuss guided inquiry as a carefully planned approach to teaching conducted by teachers and librarians. This approach pre-supposes that collaboration is an established part of the teaching process. The theory of guided inquiry, in practise, will be a deeper collaborative approach between classroom teachers and NEXUS staff. Guided inquiry is planned, supervised targeted intervention by an instructional team of school librarians and teachers who guide students through curriculum units that build meaningful knowledge that steadily leads to independent learning (Kuhlthau 2007). Gawith (2005, as cited in Heinstrom & Todd) discusses inquiry learning as encouraging students to ask questions, discover new ideas and critically analyse their findings.

## Collaborative Practices

The Action Research model commenced with initial discussions between the English Faculty (Year 7 English teacher) and the Research Librarian at the beginning of the school year to decide on how best to meet the integrated Stage 4 outcomes for English and

Information Literacy. The key objective of the initial round of assessments was to determine the base level of information literacy skills of the incoming Year 7 students so that a specific program could be devised with incremental levels of proficiency to increase students' skills, taking into account the students' intellectual growth and maturity over the school year. Concurrently, marking criteria for assessment had to measure the students' information literacy skills development against their intellectual growth and maturity over the school year.

Of the five Year 7 English classes, the Honours class (comprising gifted and talented students in Humanities) was not involved in these assessments. This class worked from a differentiated curriculum, at an accelerated level and as the NEXUS Information Literacy (IL) program did not meet their specific needs, the integration of IL outcomes for the Honours class was the task of their assigned English teacher. The four other English classroom teachers supported their students' participation in the collaborative program.

Heinstrom and Todd (2006) discuss the importance of identifying an approach to a curriculum topic that students can relate to and as a consequence, are motivated to increase their depth of learning. Therefore, the collaborative process between the classroom teacher(s) and Nexus professional(s) was to develop rich tasks to stimulate, motivate and improve student learning. Teaching students in a technology environment provided a comfortable and familiar platform from which to launch into inquiry learning. The guided inquiry approach used in this Action Research report meets with content and standards requirements as set by the Board of Studies. The syllabus states:

*'English in Years 7-10 is both challenging and enjoyable. It develops skills to enable students to experiment with ideas and expression, to become active, independent learners, to work with each other and to reflect on their learning.'*

A critical question that needs to be defined and answered is what exactly do we mean by 'collaboration'?

Collaboration is a network of interdependent elements and is explained in the concept of curriculum alignment (CAUL, 2001). The 'web of consistency' can be applied to any discipline and/or topic area and information literacy skills can be assessed within that context. Collaboration has a truly great effect on improving students' academic learning when innovation coupled with creativity is applied to the mix.

The model below can be used to represent collaboration and the elements that support successful collaboration.

**Curriculum Alignment Model**
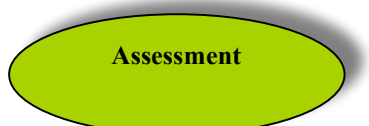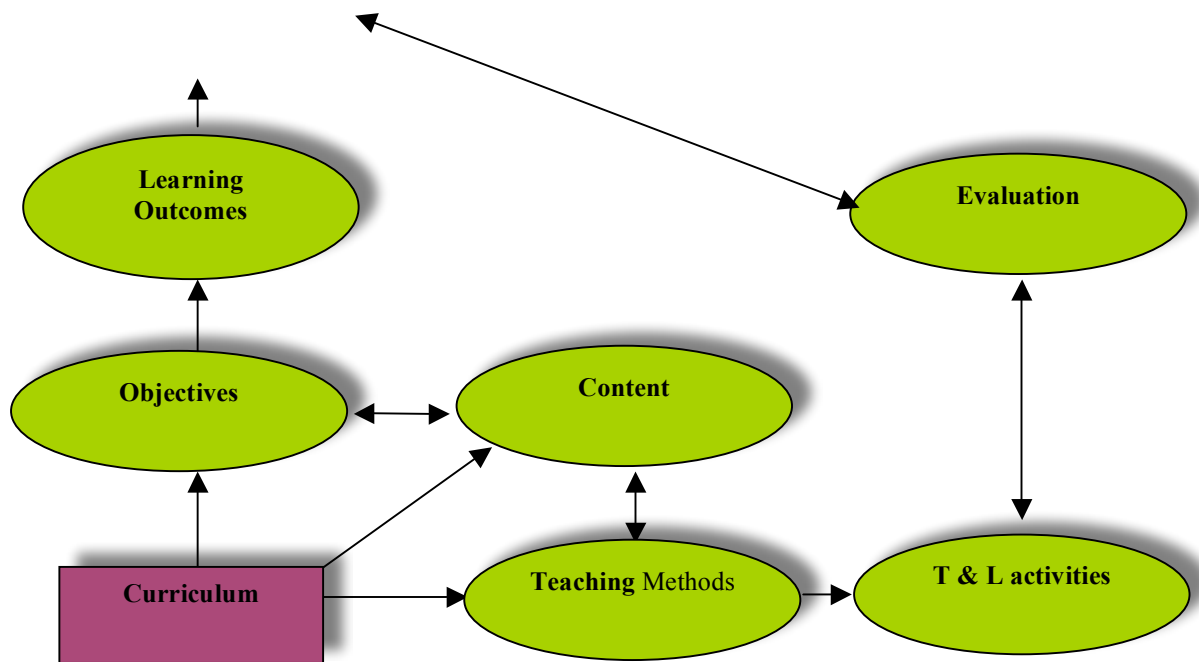
Assessment

**Figure : The curriculum alignment model displays the alignment between goals, objectives, content, learning outcomes, teaching methods, teaching and learning activities, assessment and evaluation relevant to collaboration in education (CAUL, 2001).**

The theories advocated in the literature reviewed for this project highlighted the benefits of collaborative teaching between subject teachers and NEXUS professionals which include but are not limited to:

A positive attitude to the inclusion of and the teaching of Information Literacy skills in their English teaching programs by the classroom teachers

Motivation and support for classroom teachers to take responsibility for their own professional development in the use of and integration of ICTs in their teaching programs

A desire to develop rich learning tasks and deep learning outcomes through resource-based learning tasks to motivate students and improve student learning outcomes

The opportunity this provides to showcase the facilities and programs on offer within NEXUS to the wider School community thus raising its profile.

## Administration of Assessment Tasks

### *Assessment Task 1*

This first assessment task was designed to focus on how well the students identified and retrieved information and was conducted in Week 3 of Term 1. The information the students were asked to find was based on the Year 7 Scope and Sequence strand 'Growing Up', covering difference and diversity. In English, they were studying the novel, '*Little Brother*', by Allan Baillie (1995) which provided the context for the program.  Students had two one-hour lessons in which to complete their task.

The first assessment was administered to the four Year 7 English classes by their assigned English teacher and the Research Librarian who, together, team teach these fortnightly Literacy lessons. After analysing the results of the initial assessment task, some Year 7 teachers were not as enthusiastic as they had earlier been. Their concerns were that their students were not able to understand all the questions, for example, the instruction to locate different websites ending with .org or .edu.  Another teacher was unsure about the amount of time it would take to complete the task, feeling it would take longer than the two lessons allocated, and expressed their concern that the students would lose focus. Most teachers were interested to observe their students' behavioural and assessment outcomes at the culmination of the second lesson, and keen to learn how able they were at identifying and retrieving information. The marking of the assessment task was divided into two sections, with the core English content being marked by the subject teacher and scores recorded before the Research Librarian marked the Information Literacy component. These marks were not recorded on the students' assessment but instead used to determine the baseline level of information literacy skills that would enable collaborating teachers in the English faculty and NEXUS staff to design an IL Program for Year 7 entry.

The assessment task comprised three levels of scoring: Developing, Satisfactory and Achieving. Students who failed to answer the question correctly or whose answers did not address the question were put into the Developing category, requiring further support (preferably one-to-one intervention). Those who were able to partially answer the question, demonstrating an understanding but giving an incorrect response, were marked Satisfactory. Students who answered the question correctly and were able to give an example from the text were awarded Achieving. The criteria for marking the assessment task was based on the combination of relevant learning outcomes from both the Board of Studies Stage 4 English Syllabus and the CAUL Information Literacy standards.
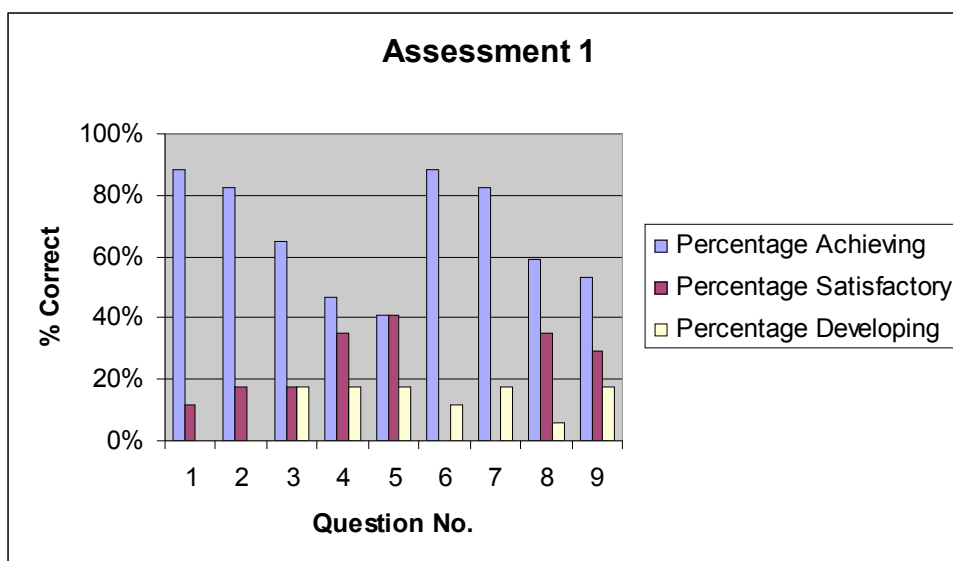
**Assessment 1**

Table 1:  Assessment Task 1 Results

A number of interviews with the English subject teachers were held in person and/or via e-mail with the Research Librarian. A template was used for question and answer type dialogue under various headings, such as: What we did; what we learnt about assessment practices for IL; how can this information be shared/used to improve learning and teaching; what refinements would we suggest. The extra work load required by teachers to integrate information literacy skills into their teaching had not been factored into their already busy schedules and teachers were not given any opportunity to program in these new Literacy classes (one per fortnight in NEXUS) before the school year began. A better result would have been achieved if a collaborative plan had been put in place from the outset. Discussion arose about the importance of developing some type of school based Scope and Sequence for the integration of Information Literacy skills into each mandatory THGS curriculum document to track and monitor students' development through each Stage level. Student outcomes would then be reported and accounted for appropriately, giving IL the validity in the School curriculum that it rightly deserves.

The flexibility of the Year 7 Literacy Program, taught collaboratively, offered the opportunity for joint reflection on what had happened and the chance to make necessary modifications before the next round of assessments. As both teaching parties were mindful of the pitfalls that could affect the program, this collaborative approach added to its success. Other feedback included not only the development of positive relationships between teachers and NEXUS staff but also in smoothing the boundaries between NEXUS, as a teaching and learning environment and the classroom for both students and teachers. Teachers began to see that NEXUS was a further extension of their classroom. The constructivist approach allowed for goal setting, independent and collaborative learning and active learning with the teacher and librarian acting as facilitators rather than deliverers of content.

The first assessment task determined the base level of each student and identified a common weakness in students' ability to critically evaluate websites as information resources. This information directed the focus for teaching and formed the subsequent testing for Assessment Task 2.

Coinciding with the first round of testing, the Head of ICT Integration, central to the new concept of NEXUS, was conducting training for interested staff on Moodle (an online teaching and learning web interface tool that allows teachers the flexibility to post lessons, assessments and homework online). Moodle provides the opportunity for a 24 hour classroom which, in itself, has brought many new challenges with teaching staff now required to become more information literate. The introduction of Moodle as a teaching and learning tool, combined with the introduction of Information Literacy teaching, has given NEXUS a raised profile within the School community, even at this early stage.

*Assessment Task 2*

The guided inquiry approach has a greater application to student learning than knowledge gathering. It is not enough to provide students with sources and instruction in finding and evaluating information. A more holistic approach where an intervention is implemented (by the teacher and the librarian) in the information seeking process will encourage students in their own learning processes. It was anticipated that students would engage willingly in the learning process if they were motivated by the topic and encouraged to complete the task in a supportive learning environment. As evidenced, an area that needed to be developed was the ability to determine the true nature and extent of the information requested and from this, the ability to critically evaluate the information retrieved. A lesson prior to the second assessment task, administered in Week 7 of Term 1, focused on how to differentiate between good and bad websites.
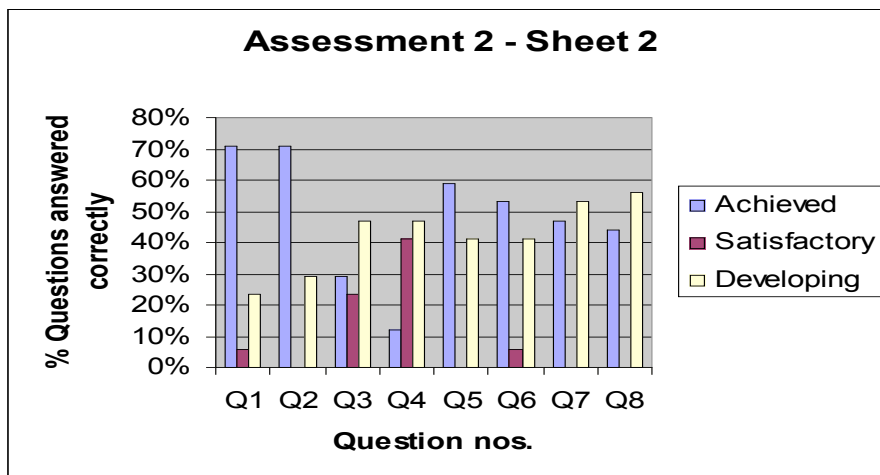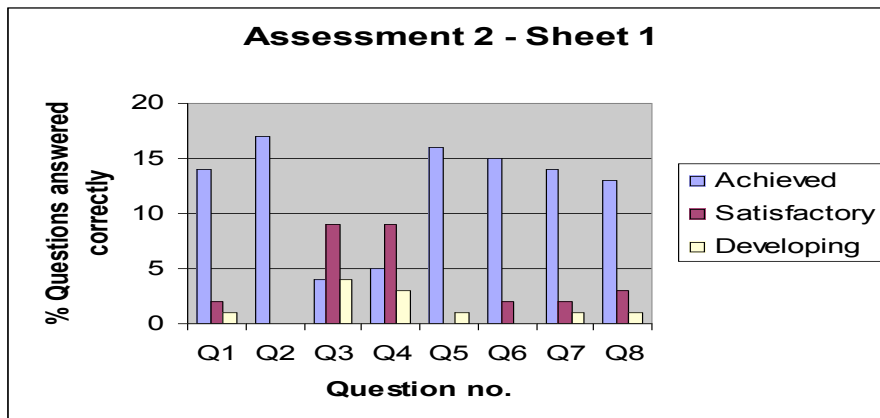
The assessment task was again based on the novel, '*Little Brother'*, by Allan Baillie (1995) and these questions related to the Board of Studies English syllabus outcomes 1.5 and 1.6 and CAUL Information Literacy Standards 2 and 3. Although some students experienced difficulties identifying elements that define good quality websites and also experienced difficulty critically evaluating information on a website, this assessment task was successful for two teachers who noted that students were able to demonstrate transference of their newly acquired skills to the classroom situation and they were excited about participating in lessons held in NEXUS. Students need to be actively involved in discovering and constructing their new understandings to meet curriculum outcomes and content standards and given opportunities to show transference of their newly acquired skills and knowledge to new situations. The collaborative English information literacy lessons developed an intrinsic motivation to research independently and encouraged positive self-efficacy about accessing and using resources. Not all went smoothly though with the other two groups as one teacher arrived with the class at the beginning of the second lesson and advised the Research Librarian that the class would not be following the planned Information Literacy program. The students were not coping with the online literacy assessment task so the teacher had prepared her own program for the class to follow. The fourth teacher in the program also opted out because the students were finding the tasks challenging and their motivation to finish was extremely low.

### Assessment Task 3

By this stage, students had undergone two terms of information literacy teaching in NEXUS. The collaborative approach ceased to operate due to staffing changes in both the English Faculty and NEXUS. Whilst there was knowledge sharing between the English Department and NEXUS about the topics students were studying, there was no longer the collaborative approach to program design and delivery of these lessons. Students read the play '*Two Weeks with the Queen'* by Mary Morris, adapted from the novel by Morris Gleitzman (1993) for the drama topic and the gender theme. For the final round of information literacy testing, students were given two texts in their information literacy class: a portion of '*Aung-San'* by Elizabeth Arnold (2007) and a scene from the play '*Boss of the Pool'* by Mary Morris, adapted from the novel by Robin Klein (1993). Both texts shared the same themes as the first two assessment tasks: gender; difference and family.

In Assessment Task 3, students were asked to answer a multiple question activity and open-ended responses about the two text types using the online teaching and learning software, Moodle, which focused on critical analysis skills. As Moodle was new to students, the Teacher Librarian gave a tutorial prior to the assessment task whereby students were given the opportunity to answer two 'dummy' questions as a practice beforehand.

The student outcomes were not as strong as Assessment 2. The majority of students did not understand 'text type' or 'genre' or how to recognize the author's name. These questions met BoS English Syllabus Outcome 1.6 where students need to categorise texts by content, genre, composer and purpose and CAUL Information Literacy Standard 3 that states information literate people are able to summarise the main ideas extracted from information gathered. In discussion, it was evident that English teachers find it difficult to teach Information Literacy as part of their English classes. One reason is because the teacher that students have for their regular English lessons may not necessarily be the same allocated to their class for the extra fortnightly Information Literacy classes. Due to this awkward situation, problems have arisen with consistency and continuity of programs. Some teachers

are keen for information literacy skills to be taught in conjunction with their subject. However, if there is only one lesson every two weeks, it is difficult to integrate information literacy lessons with what is being taught in the classroom and maintain consistency. The English faculty tend to move through topics within the two week timeframe, so the opportunity for teaching information literacy skills linked to the topic is often lost. One teacher even commented that she did not understand what information literacy was and why it had to be part of the English syllabus. By the third assessment task, signs of political and social change began to impact negatively on the collaborative approach.

## Conclusion and Recommendations

This research project has provided evidence-based practice demonstrating the tangible impacts and outcomes of making sound decisions through the implementation of NEXUS goals. The documentation of the learning outcomes of these collaborative teaching-learning lessons has helped to validate the school library to the wider school community, and the learning that is enabled through it. This study showed that initially teachers were not only unsure about what information literacy meant, therefore unable to plan for its inclusion in curriculum outcomes, but were also somewhat reticent to hand over ownership of their students or the delivery of lessons in a team teaching approach. The number of students assessed in this research project only totalled 19 out of 125 students in Year 7. By introducing a collaborative approach, teachers were forced to share their valuable teaching time with an Information professional who, unlike the classroom teacher, had no accountability for students' learning outcomes in terms of the assessment and reporting cycle. Hence there was very little incentive for teachers to become part of a program such as this one, where the full responsibility remained with the teacher yet the expectation was for class teachers to entrust their students' learning to someone else. It was evident that teachers were comfortable when using NEXUS facilities to teach their own classes, but were not so comfortable in sharing a collaborative teaching approach where they had to take the full responsibility for information literacy outcomes when they did not understand these themselves. To avoid some of the issues that arose, a professional relationship needs to be established between the faculties so collaboration becomes an accepted part of lesson planning, implementation and evaluation. A major shift in thinking is needed to promote and facilitate such collaborative practice at The Hills Grammar School.

From observation and discussion of this research, there are indications that teaching staff can move forward to embrace change, but the change needs to be supported through School Management. A top down approach will cause shift, not always willingly, but it will impact on existing approaches. This project explores the successes and pitfalls, highs and lows, joy and exasperation of initiating new ways of presenting learner-centric teaching.

The Hills Grammar School is justifiably proud of the fact that every individual in the School is valued. The School caters for a large range of abilities and learning styles among the students. We need to be open to different ways of thinking, processing and interpreting the world. We must observe, listen, have an awareness of current theories and frameworks but not ruled or constrained by them. From our NEXUS team's viewpoint this is the challenge, excitement and frustration of our job. If the cap fits, wear it; if it does not, try a new cap, change the old cap, design a new cap or go bare-headed! In NEXUS, our approach incorporates these considerations and seeks to use the most effective teaching strategies in order to engage each student in his/her learning.

In an atmosphere of collaboration we can continually encourage the students to expand their capabilities and foster confidence as a learner. We endeavour to demonstrate, through our daily interaction with students, a way of **teaching** that inspires success and a love of **learning** that will last them all their lives.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

Focus on Global Education:

Mixed Methods Approach to Understanding Macro and Micro Levels of

Effective School Libraries from an Information Science Perspective

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*The present article describes a longitudinal, mixed methods, case study of Kansas, USA, school libraries.  The overall aim in the study is to explore from an information science perspective the school librarian's involvement in information literacy instruction, student learning and achievement and meaningful educational partnerships.  Sources and types of evidence from this five-year investigation are made available on a website with the intent of contributing to a strong community of evidence-based practice.*

*school libraries, information and technology literacy, evidence-based practice*

Focus on Global Education:

Mixed Methods Approach to Understanding Macro and Micro Levels of

Effective School Libraries from an Information Science Perspective

The relationship between education and the well-being of people has long been recognized.  Today American education law and policy makers maintain that education is the ticket to future productivity and that every child should have a ticket.  This era has been fraught with concerns that disengaged United States American (USA) students are falling behind their Asian peers in academic learning (Steinberg, 1996).  The school library has become a potential target for school improvement outlined and required in No Child Left Behind Act of 2001 (PL 107-110).

Fortunately, the conversation about improving education has evolved from *whether* we should teach about the world to *how* to best teach about the world given the present information explosion and everything else teachers have to do.  Using information and technology is probably one of the greatest ways to improve and internationalize education.  To achieve world-class learning and literacy that prepares young people for work and citizenship in a global society and enables them to participate fully in political, civic, and economic life in society, some fundamental, overarching questions that educators must ask and answer are:  How can we ensure that global perspectives become an integral part of learning and literacy?  What role does the school librarian have in meaningful, educational partnerships?  This study explores interrelated variables to answer these questions in a longitudinal, mixed methods, case study of Kansas, USA, school libraries.

Terms Defined

Information Age School

"The school would be more interactive, because students, pursuing questions of personal interest, would be interacting with other students, with teachers, with a vast array of information resources, and the community at large to a far greater degree than they presently do today.  One would expect to find every student engaged in at least one open-ended, long-term quest for an answer to a serious social, scientific, aesthetic, or political problem.  Students' quests would involve not only searching print, electronic, and video data, but also interviewing people inside and outside of school.  As a result, learning would be more self-initiated.  There would be more reading of original sources and more extended writing.  Both students and teachers would be familiar with the intellectual and emotional demands of asking productive questions, gathering data of all kinds, reducing and synthesizing information, and analyzing, interpreting, and evaluating information in all its forms.

In such an environment, teachers would be coaching and guiding students more and lecturing less. They would have long since discovered that the classroom computer with its access to the libraries and databases of the world is a better source of facts than they would ever hope to be. They would have come to see that their major importance lies in their capacity to arouse curiosity and guide it to a satisfactory conclusion, to ask the right questions at the right time, to stir debate and serious discussion, and to be models themselves of thoughtful inquiry" (American Library Association, 1989).

## Information Literacy

Information literacy is a set of abilities requiring individuals to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (American Library Association, 2006).

## World-Class Learning

World-class learning is a concept in the making. Bransford, Darling-Hammond, and LePage (2007) constructed a framework to illustrate three general areas of knowledge, skills, and dispositions that are important for any teacher to acquire: knowledge of learners and how they learn and develop within social contexts; conceptions of curriculum content and goals; and an understanding of teaching in light of the content and learners to be taught. "The framework provides a set of lenses on any teaching situation that teachers can use to reflect on and improve their practice" (p. 10). It is built on the assumption that "teaching is a profession with certain moral and technical expectations" (p. 10); in the USA, education serves "the purposes of a democracy (p. 10). This means that for schools to be democratic, and world-class, "they must assume the purpose of preparing young people for work and citizenship in a global society and of enabling students to participate fully in political, civic, and economic life in society; educators support equitable access to what society has to offer" (p. 10-11).

## Literature Review

School library media impact studies have been designed to answer questions about whether or not school librarians and fully licensed school librarians matter. The matter of significance is important because the U. S. Legislature in the No Child Left Behind (NCLB) Act of 2001 defined the criteria for "highly qualified" educators, and teacher-librarians were not listed among those in "core academic subjects" who need to have particular course work and credentials. As a result, educators' qualifications for serving as teacher-librarians continue to vary from state to state, and paraprofessionals occupy the position of librarian in many schools. In many states such as Arizona and California, the position has even been eliminated in many school buildings all together. All teacher-librarians are at risk when considered on the periphery in education.

The first Colorado Study (Lance, Welborn, and Hamilton-Pennell, 1993) indicted that school library expenditures were a key predictor of academic achievement. Findings suggested that the amount and level of library staffing, collection size, and the amount of time the school librarian spends playing an instructional role are key library predictors. In the Alaska study (Lance, Pennell, Petersen, & Sitter, 2000) significant findings indicated that test scores tend to be higher where there is a librarian; a full-time librarian rather than a part-time one; and a part-time librarian rather than no librarian at all. The Texas study (Smith, 2001), Iowa study (Rodney, Lance, & Pennell, 2002), and Minnesota study (Baxter, Smalley, 2003) all indicated similar findings that student performance on achievement tests improved with investment of school library center resources and the presence of a librarian. The Ohio Study (2003) investigated students' perspectives of benefit from school libraries through elaborating concepts of "help." Ohio findings indicated that the school library and its services, including roles of school librarians, helped students in some way, regardless of how much, with their learning. By 2005, the research conducted by Lance et al. had been replicated in more than a dozen states with five different researchers or research teams (Lance & Callison, 2005). These studies produced consistency in data and some separation of effects, particularly economic investment effects.

Existing impact studies serve as a form of evidence when it comes to the need to sustain development of the school library media profession. Previous findings identify specific activities of the library staff that constitute planning an instructional role and the impact of library-related technology. The scarcity of evidence on the role of the teacher-librarian in meaningful, educational partnerships that emphasize information literacy instruction and global perspectives is very regrettable. Demonstrating that school librarians, along with other educators, prepare students for work, citizenship, and daily living in an information-rich environment is the kind of evidence that may make it possible to infiltrate the current NCLB position on school librarians and finally begin to list "teacher-librarian" as "highly qualified." It will be important to know how, and how much, is achievement improved when librarians collaborate more fully with other educators.

School library researchers must now design studies that use theoretical lenses to advance the relationship among variables and raise new questions about students' learning and information needs and educators' roles in user-centered information services. This is one such study. The new goals in this study are to conduct research that will generate theory about how educators teach and students learn in information age schools, and gather stronger evidence of practice impacts and outcomes that can be shared with teachers, administrators, public officials, parents and community members, and in so doing, benefit students in today's world. This study recognizes the school librarian as a professional educator who is both highly qualified and highly involved in information literacy instruction, and student learning and achievement.

This study attempts to contribute to the existing knowledge base by exploring the

influence of integrated, team-based instruction on students' development of research and academic skills. It examines by comparing Kansas Accountability Reports (licensed personnel) and Kansas Adequate Yearly Progress (AYP) reports, and by investigating whether test scores can be positively influenced by the extent to which active and collaborative instructional approaches are used by school librarians and content teachers.

This study answers these questions using a combination of quantitative and qualitative research methods and a constant comparison of data in a "mixed methods approach" (Creswell, p. 19) to identify links between instruction and student learning and achievement not only in reading, but also in mathematics, science, social studies, history/ government, and writing.

At the macro level (institution), the study asks: 1) Does student performances on state assessments improve as a result of instruction based upon model State Library Media and Technology Standards that are aligned with state assessed content areas? 2) Is there a positive relationship between student performances on state assessments and students' access to a fully qualified library-media specialist? Even though similar questions have already been posed in statewide studies, it is important to understand annual State statistics on these matters. Annual Kansas statistical reports will be used to inform the field and to determine micro level methods for data collection for each of five years.

At the micro level (individual), the study asks school librarians: How are you involved in information literacy instruction including engagement in collaborative lesson planning, development, and delivery? Of particular interest is learning from participants in the study about the librarians' role in integration of information and technology literacy into school curriculum and students' learning activities that emphasize global perspectives.

## Theory-base of the Study

Neuman (2000) views theories at three levels, each with a different breadth of coverage: micro-level (small slices), meso-level (linking), and macro-level (large aggregates). Neuman's concept of levels was used in this study to rethink the issue of school library impact and to present a different, systematic view of the phenomena. The field of information science provides a macro level lens for explaining the school as a social institution; the theory of evidence-based practice explains decision-making at the organizational level; and theories of diagnosis of information needs and guided inquiry provide explanations for how librarians engage with students.

### Information Science: A Service Perspective

According to Rubin (2004), "The field of information science has much to offer when one is considering how to improve information service" (p. 74). This is particularly true for improving school library services. New information technologies have provided a

driving force for research in information science and contributed a great deal to our understanding of how information is created, organized, disseminated and used in society. A defining feature of library science is its "focus on the transmission of information to meet human needs" (p. 32).

Knowledge of information science, an "interdisciplinary field that draws on scientific, social scientific, and psychological fields" (Rubin, 2004, p. 32) when integrated into educators' theory base provides a useful lens for examining many of the problems and tasks that now confront educators, administrators and policy makers. "Contemporary information science has made the shift in emphasis away from the book to information itself. Information science is sometime characterized as deinstitutionalized information library science; it is the library without walls, the entire world of information is the collection and the librarian or information scientist is the agent who acquires, organizes, and disseminates that information to meet the needs of people" (p. 32).

## Evidence-based Practice

Theory-based practice, also referred to by the medical profession (Melnyk & Fineout-Overholt, 2005; Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000) as evidence-based practice (EBP), is used throughout this study. Like EBP in the delivery of services in health care, EBP librarianship (Figure 1.) is a problem-solving approach that uses empirical research to identify best practices in library services and to design instruction for guiding students in their learning and academic achievement. When EBP librarianship is provided in a context of caring, it leads to decisions about best practices and outcomes for students. Active engagement with theoretical and empirical knowledge enables the school library media professional to evolve and to improve.

Figure 1. Evidence-based Librarianship Model

## The Process of Diagnosing Information Needs

The theory of diagnosing information needs is particularly relevant to this study as it provides foundational knowledge for determining best educational practices. It also provides a basis for informing school librarians' actions and role in meaningful educational partnerships. According to Greer, Grover, and Fowler (2007), knowledge of information user behavior grows out of the field of information psychology. Information psychology "focuses on how individuals seek, acquire, organize, process, utilize, and store

information" (p. 80).  These researchers assert that information psychology applies such theories as Piaget's cognitive development theory, Jung's personality theory, and Grindler and Stratton's role theory to explain the process of diagnosing individual information needs.

Greer et. al. (2007) further state that "diagnosing information needs can occur at any point in the behavior of acquiring information:  awareness of need, action decision, strategies for search, behaviors in search, evaluation, assimilation, memory and/or utilization" (p. 81).  Their theory suggests points for diagnosing individual information needs that are likely to occur throughout students' school days, not simply while in the library for a brief, scheduled visit.  From this it is possible to extrapolate that individual information needs are present when, for example, a content teacher introduces a new topic or assignment; a student is faced with an action decision such as currency exchange with another country; strategies in search and behaviors for search occur in the midst of an exercise in determining the best approach to graphical simulations of human muscle motion and deformation; opportunities for evaluation, assimilation, memory and/or utilization are all involved in learning about who makes our clothes or cell phones to the pros and cons of international trade agreements.

While diagnosing information needs has typically been considered the work of the professional librarian involved in a reference interview, these examples suggest that all educators in a student's academic life share roles in diagnosing individual information needs.  The theory of diagnosing information needs in the context of today's information age schools suggests the need for strong partnerships between content teachers, school librarians and technologists.

## The Theory of Guided Inquiry

We can gain insight into helping students acquire global perspectives as they learn and acquire literacy skills through the lens of theory on guided inquiry. According to Kuhlthau, Maniotes, and Caspari, 2007, the theoretical foundations of guided inquiry are grounded in constructivist theories including those of Dewey, Bruner, Kelly, Vygotsky, and Piaget.  Kuhlthau et. al. assert that "Inquiry is initiated by someone who has something that needs investigation, a fundamental question, pressing issue, or troubling problem that requires further information" (p. 17).  Kuhlthau's (1993, 2004) more than twenty years of information search process (ISP) research, which includes children and adults, reveals that there are distinct stages (initiation, selection, exploration, formulation, collection, presentation, assessment) in the inquiry process, and some stages are more difficult for some individuals than for others.

Kuhlthau's research provides evidence that educators should expect students to experience difficulties and confusion during the exploration and formulation stages of the information search process.  She uses Kelly's (1963) personal construct theory as a lens

for explaining her observations of students' experiences when encountering new ideas that often conflict with what they already know and accept. Kuhlthau points out that uncertainty is the beginning of the learning process and an important concept that underlies the inquiry process. Kuhlthau asserts that students need to learn about their own uncertainty and its relationship to seeking meaning. Her theory suggests the need to know more about a possible correlation between the quality of the school librarian's services and the student's openness and acceptance of new ideas.

Kuhlthau's ISP model has been shown in recent studies conducted by the Center for International Scholarship in School Libraries at Rutgers University (Todd, Kuhlthaus, and Heinstrom, 2005) to apply in technological information environments. The ISP model includes the stages of reflection and thinking that are easily overlooked when using electronic information. The IFS model is based on solid empirical knowledge about the individual search process and provides those involved in evidence-based librarianship professional expertise, knowledge and skills they can apply in practice. School librarians who reply on information science as a source for understanding and building strong partnerships are likely to lead, inspire, and transform schools into environments where all students makes sense of their world.

## Outcomes and Standards Provide Framework for Evidence

State and national standards for student learning provide a framework for the evidence that must now be generated. States have the opportunity to construct and use their own model standards for PreK-12 information and/or technology instruction.

## Kansas Model Standards for Library and Information Technology

Recently, Kansas school librarians and technologists came together to review existing standards and to create one new thoroughfare for teaching content-based, authentic inquiry. Benchmarks are aligned with instruction in content areas. These features draw special attention to the school librarians' instructional responsibility to collaborate with other educators and to be accountable for doing so. Figure 2.is an illustration of the merger of content, school library media and technology assessed standards coming together to form data sources in this study.

Figure 2. Kansas Study Data Sources

## AASL Standards for the 21$^{st}$ Century Learner

In October, 2007, the American Association of School Librarians (AASL) published "Standards for the 21$^{st}$ Century Learner," which provide useful guidelines for world-class learning and literacy. These standards build on *Information Power: Building Partnerships for Learning* (1998), provide a plan for the school librarian to 1) serve as a collaborative instructional partner with the classroom teacher; 2) provide information access through various sources for all members of the learning community; and 3) to manage the infrastructure of the school library. These new standards define nine foundational common beliefs. While all nine beliefs are relevant to world class learning and literacy, these beliefs are particularly unique in their emphasis on student learning and achievement in terms of equitable access to information and learning in a social context as key components for education. These standards are expressed in skills, dispositions in action, responsibilities, and self-assessment strategies that 21$^{st}$ century students will need to become effective problem-solvers who question, find, evaluate, and share information.

## Methods

A longitudinal, mixed methods, case study of Kansas, USA, school libraries is being used to explore implications of the school librarian's roles in information literacy instruction and meaningful educational partnerships. Kansas, population: 2,775,997 (U.S. Censes Bureau, 2007), is a mid-western state in the central region of the USA, an area often referred to as America's "heartland." To best understand Kansas school libraries, this study serves to converge both broad quantitative trends from annual state accountability reports (phase one) and qualitative methods of open- and closed-ended questions (phase two). Quantitative research concepts and methods are used in phase one activities to study all grade levels and all Kansas school buildings. Qualitative research concepts and methods are used in phase two activities to focus on participant activities within selected school buildings. Figure 3. is a detailed outline of the simultaneous data collection procedures.

This study is most concerned with solving the problem. It is based on the assumption that collecting diverse types of data best provides an understanding of the research problem. It begins with a broad analysis of statistical data that can be generalized, and then focused on detailed qualitative, open- and closed-ended questions in surveys, interviews, participant observation protocol, and/or document analysis to collect detailed views of the participants. Details about data and data collection instruments are available on

the research Kansas Study of School Libraries (Dow & Lakin, 2005 - present) website.

| Research Year | Quantitative Methods Phase One | Qualitative Methods Phase Two |
|---|---|---|
| 2005-06 Year One | Statistical analysis of State of Kansas Department of Education Accountability Reports and Adequate Yearly Progress Reports. | Surveys sent to school librarians in school's that achieved the Standard of Excellence and employed a fully licensed school librarian.<br><br>Interviews in schools achieving high with and without school library media specialists, and achieving low with and without school library media specialists. |
| 2006-07 Year Two | Statistical analysis of State of Kansas Department of Education Accountability Reports and Adequate Yearly Progress Reports. | Survey of school and non-school librarians; Focus on aspects of teaching global perspectives<br><br>Document analysis of librarian constructed units of study<br><br>Interviews with school administrators with and without school librarians |
| 2007-08 Year Three | Statistical analysis of State of Kansas Department of Education Accountability Reports and Adequate Yearly Progress Reports. | Survey of pre-service elementary education students to learn about how competent and willing they are to take advantage of the librarian and library.<br><br>Evidence-based sources from Post-MLS School Library<br><br>Identify leaders in evidence-based practice and learn from them<br><br>Interviews, Observations |
| 2008-09 Year Four | Statistical analysis of State of Kansas Department of Education Accountability Reports and Adequate Yearly Progress Reports. | To be determined |
| 2009-10 Year Five | Statistical analysis of State of Kansas Department of Education Accountability Reports and Adequate Yearly Progress Reports. | To be determined |

Figure 3. Kansas Study of School Libraries Mixed-Methods Data Collection Procedure.

This five-year, Kansas study began during the 2005-06 school year because many important factors came together at one point in time. These factors included: a new five-year assessment window (based on criterion reference testing) in reading, mathematics, writing, social studies (history/government), and science; Kansas Individual Data on Students (KIDS) database for managing student records; revised library-media standards with the addition of technology standards; locally administered 8th grade technology assessment; and, revised Kansas Quality Performance Accreditation system to meet no Child Left Behind requirements. The data collection and analysis in phase one and two take place in concert with five consecutive academic school years. At the writing of this article, second year (2006-07) data are being analyzed.

*Phase One, Years One – Five*. Kansas Licensed Personnel reports are used to

determine effects variables in school buildings with- and without fully-licensed school librarians. Quality Performance Accreditation (QPA) reports of scores by school buildings are reviewed. Statistical data are used to identify high achievement (met Standard of Excellence) by building and buildings on school improvement. Licensed Personnel Records and reading and math achievement reports are compared and organized into results charts.

*Phase two, Year One – Five.* Researcher-made tools for further investigating findings in phase one data are used to determine the school librarians involvement with student learning. The primary purpose of phase two is to present a grounded theory of information literacy instruction. For purposes of this paper, grounded theory (Creswell, 2003) is defined as theory generated from data systematically obtained and analyzed through the constant comparison method.

## Results

## Phase One Questions

During phase one, the study seeks to answer: Phase One, Q.1. Does student performance on state assessments improve as a result of instruction based upon State Library Media and Technology Standards that are aligned with state assessed content areas? Phase One, Q.2. Is there a positive relationship between student performances on state assessments and students' access to a fully qualified library-media specialist?

## Phase One Responses

*Phase One, Q.1.* There is initial statistical evidence of the presence of fully licensed school librarians in Kansas schools. Approximately 85% of Kansas school buildings employ at least one fully licensed school librarian. In small schools, there is sometimes one fully licensed school librarian to serve two school buildings. This finding appears to be stable.

*Phase One, Q. 2.* There is initial statistical evidence that most Kansas school building with fully licensed school librarians are earning high recognition for student learning and achievement. During 2005-06, of 341 school building that earned the Kansas Standard of Excellence, which required Annual Yearly Progress (AYP) in both math and reading, 301 (88 %) buildings have licensed school library media specialists, and 40 (12 %) have no licensed school library media specialist. This study revealed that the 12% is often explained by school librarians serving two building and not being reported in both, or school building employing school librarians with conditional licenses. This finding appears to be stable.

*Phase One, Q. 2.* There is initial statistical evidence that a small percentage of Kansas school buildings with fully licensed school librarians are not earning high

recognition for student learning and achievement. During 2005-06, of the 75 school buildings in Kansas that failed to achieve Annual Yearly Progress (AYP) in both Reading and Mathematics, 58 (77%) have licensed school library media specialists and 17 (23 %) have no licensed school library media specialist. The study revealed that in school buildings with no licensed school librarian, there were instances of para-educators or pre-service librarians employed. Occasionally, a licensed substitute teacher was assigned to the school library.

## Phase Two Questions

During phase two of each year, the study seeks to answer: Phase Two, Q. 1. How are you involved in information literacy instruction including engagement in collaborative lesson planning, development, and delivery? Of particular interest is learning about librarians' role in integration of information and technology literacy into school curriculum and students' learning activities. We first needed to establish the extent to which school librarians are involved in these ways.

## Phase Two Responses

*Phase Two, Q.1.* More than half (51%) of responding Kansas school librarians (n=97) in high performing schools reported involvement in collaboration with teachers that connects to something the content teachers were teaching in the classroom. School librarians were usually involved in teaching reading skills and teaching research skills and resources. At an international content and communication magnet school, the school librarians stated, "We have integrated technology into every part of our curriculum, both within the classroom and during library classes. Our students are actively involved in learning about the programs and resources that encourage their learning. I instruct with enrichment to aide students' knowledge area of specific topics."

In the initial year of the study, this question was difficult to answer due to Kansas school librarians' lack of tracking their own instructional involvement and lack of recording or reporting sources of evidence of student learning. Too often librarians create annual program-based reports without including details about their involvement in helping students to achieve learning outcomes.

*Phase Two, Q.1.* Low performing schools have been on school improvement plans for one year or more. These schools have high numbers of students on free and reduced school lunches. In one school, the interviewed respondent reported that the school is "like a revolving door. Many kids do not know where they will sleep tonight. Kids are members of gangs. Many students are living with grandparents, staying in hotels, and some sleep in cars. Kids just need to survive and save face is more important than learning. Some want to learn but they think if they show that they want to learn, they are being weak."

*Phase Two, Q.1.* A major focus on global education existed in a Kansas school building with a mission that emphasized international content and communication. Also, discovery of high numbers of students with diverse backgrounds and interests pointed to the need to teach school librarians more about instruction that requires global perspectives. As a result of this finding, "focus on global perspectives" will be targeted in 2008 Kansas Summer Institute for School Librarians professional development class.

## Conclusions

Viewing school libraries and librarianship through the lens of information science offers an opportunity for gaining new insight into the school librarian's role as a "highly qualified" (NCLB, 2001) educational partner in information age schools. It is this information knowledge base that should be argued is the school librarian's "core academic subject" (NCLB, 2001) and that which distinguishes professional school librarians from para-educators. First and second year data reveals opportunities that educational partners have to re-think and reform instructional practices and to develop new, collaborative practices that will better serve all students through a new focus on information and global perspectives. From this it becomes clear that a new content area should be added to distinguish learning in world-class education: information.

Initial data collection and analysis (year one and two of five) provided excellent opportunities to gain insight into questions raised in prior impact studies of school librarians and school librarians. By studying the Kansas State Department of Education Accountability Reports and Adequate Yearly Progress reports, a statewide picture of licensed school libraries emerged. This picture served to connect dots between findings from others states and the educational situations that exist in Kansas school buildings.

This study adds a longitudinal dimension that will go beyond earlier studies to create over time a stronger body of evidence related to administrative decisions about investing in school librarians. The quantitative data provides numeric evidence and presents the opportunity for a correlation study and to identify confounding variables in earlier studies. The qualitative data provides an insider view of integration of library and technology and content standards and the roles school librarians in teaching information literacy skills. This is particularly useful in immediately moving the field forward. It also provides librarians with information that can be used to become involved in their school's improvement plan. Taken together, reporting on findings in this mixed methods approach appears from observations to have already stimulated the tendency for some school librarians to shift their thinking from a focus on a school library program-based mission to learner-centered outcomes and students learning needs. Study findings generate a new level of awareness of the need to collect data about how, and how much, librarians are involved in student learning. Leaders in doing so are stepping forward with good questions and approaches to gathering and reporting EPB.

Interview data provided an insider view of how school librarians can create new opportunities for diverse school populations to learn from each other through sharing interests and experiences, backgrounds and cultural knowledge. By mobilizing streams of knowledge, we can transform school environments into international contexts for teaching and learning. New insights from the data influenced plans for professional development on this topic at the 2008 Kansas Summer Institute for School Librarians. Year two of five data collection focuses on how school librarians as instructional partners can use information and technology to teach basic skills and create curriculum-based programs that cover a host of international issues and global perspectives.

Finally, the ongoing relationship among research, professional practice, and local action is central to EPB. This has critical implications for disseminating findings. Awareness of the need to share findings and related resources that can be continually updated and easily accessed led to the construction of a Kansas Study of School Libraries website, which includes survey and interview questions, reports of findings, new instructional and assessment resources, and urls for blog and wiki for sharing of practitioner generated exemplars. There is a master list of documents. This website will become a database of EBP.

Findings from this study also have many implications for training of school librarians and teachers. In fall 2008, Kansas post-Master of Library Science school library media interns at Emporia State University (ESU) will be involved in sharing multiple sources and types of evidence of student learning and ways of gathering evidence. Further, pre-service elementary education teachers enrolled (required at ESU for program completion) in a one-credit hour course titled "The Elementary Teacher and the Library Media Specialist: Partners in Teaching Literature Appreciation and Information Literacy" will be surveyed about their willingness and abilities to collaborate with the school librarian and to take advantage of the school's library. The challenge is to provide sustained professional development and a commitment to EBP that will remove all doubt about the importance of professional librarians and networked libraries in creating world-class schools and education.

Visit the Kansas study's website for continually updated information about this study (Dow & Lakin, 2005). http://slim.emporia.edu/kschool/research/index.html

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This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Electronic Media and Leisure-Time Reading: Responses of School Librarians

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*This study investigated how electronic media impact youth's leisure-time reading at different academic levels. One hundred two school librarians participated in an online survey. These respondents reported that playing computer games, watching TV, and surfing the Internet compete with reading. Primary school librarians mainly agreed with the impact of TV and computer games, but not with that of the Internet; at the middle school level, the perceived influence of the Internet increases, but it is still less important than computer games and TV; high school librarians agreed with the perceived effects of TV, the Internet, and computer games on leisure-time reading.*

## Introduction

The studies on the influence of electronic versus print media to reading yielded different results at different times and places. Wright et al. (2001) defined electronic media as "TV and computer/video games." A recent study by the National Endowment for the Arts (2004) suggested a decline in literary reading in the United States and brought much attention to revitalizing the role of reading in America (Institute of Museum and Library Services, 2006). Literary reading was defined in the National Endowment for the Arts (NEA) report as reading "any novels, short stories, poetry or plays." The NEA also queried if people "read any book" in the past year in any format, "including e-formats," and discovered a drop from 60.9% in 1992 to 56.6% in 2002 (Bauerlein, 2004). The NEA report recommended further studies on how digital media, especially TV, the Internet, and computer games, compete with leisure reading – an activity of the readers' own choice as opposed to what is required by work or study (Hughes-Hassell & Lutz, 2006). Recently, the NEA summarized some statistical reports and concluded that reading among youth also fell, due to the possible influence of digital entertainment media (National Endowment for the Arts, 2007). In this paper, electronic media is defined as "TV, Internet, and computer games," as the Internet has become one of the dominant media nowadays.

What can school librarians do to enhance leisure-time reading? Previous studies found reading behaviors change when reading materials change. Rosenblatt's transactional theory (1986) suggested a "reciprocal, mutually defining relationship" between the reader and the text. The relationship between reader and text is much like that between the river and its banks, each producing its effects upon the other.

More recently, library studies indicated that books published in the digital age also change the way people read. For example, the Internet might already have changed readers' attitudes towards different formats of books that were recently published. Dresang and McClelland (1999) found that "authors, illustrators, editors, designers, and publishers have been producing books with digital age characteristics of interactivity, connectivity, and access." Reading is also influenced by multiple factors such as gender differences (Moffitt & Wartella, 1992) and parental involvement (Warren, Prater, & Griswold, 1990).

Literature review shows digital media (TV, the Internet, and computer games) seem to be the most important factors that affect reading today, especially among younger populations (Salomon, 1979). Surfing the Internet, watching TV, and playing computer games create learning environments where children can passively receive what is programmed in digital media. Printed and digital texts are not merely different formats of the same educational media, but they have different purposes, procedures, and cognitive effects (Reinking, 2001). The NEA implied that digital media influenced the declining reading rate and encouraged further investigation. Because the NEA study focused on adult readers, it may miss the connection between reading and young readers. Since school librarians serve young readers in elementary, middle, and high schools, it is possible for them to observe what impacts leisure reading. For this reason, as a first step, the effects of digital media should be investigated by studying the beliefs and opinions of school librarians. Findings from such studies will provide an important basis for further studies on policy changes on library youth services. Such research reports may also help youth librarians design more relevant reading programs.

## Methods

School librarians traditionally are interested in reading and literacy. They go to great lengths to share with each other how to get young adults into libraries, how to create enticing programs for them, and how to turn "non-readers" into "readers." (Jones, Gorman, & Suellentrop, 2004). They interact with children at different age levels – primary, middle, and high – and they may observe how various age groups use digital media differently. After the elementary years, they reported many young people stop coming to libraries for "leisure reading." Data-gathering methods commonly used with adults, such as interviews and questionnaires, are often not suitable for use with children whose oral and written language skills may not be well developed. Thus, it is relevant to create a survey instrument to evaluate school librarians' opinions on what may impact youth's leisure reading. To fulfil this purpose, this study investigated the following research questions:

(1) How reliably can we measure librarians' attitudes on the impact of digital media on leisure-time reading?

(2) According to school librarians, how do digital media, particularly TV, the Internet, and computer games, compete with youth's leisure-time reading?

(3) Do librarians in different academic environments – primary, middle, and high schools – react differently to the influence of digital media (TV, the Internet, computer games) on youth's leisure-time reading?

Before choosing survey questions, the author reviewed existing literature on the effects of digital media on leisure-time reading. Notable studies included Smith's work on the correlation between reading print materials (books, periodicals, and personal documents) and literacy abilities (Smith, 1996), and his qualitative study using the diary method (Smith, 2000). Studies by Holt and Smith (2005) on cultural differences between African-American adults and European-Americans, as well as a short reading-attitude survey by Tunnell (1988), were also considered. Based on the literature review, a new instrument surveying librarians' attitudes toward digital media and their impact on leisure reading was created. A university statistician and two professors from ALA-accredited library schools evaluated the questionnaire. The survey questions are attached as the Appendix.

The questionnaire was pilot-tested by graduate students. In December 2004, it was published online in LM_NET, the listserv for school librarians. A second call for participation was posted after the deadline to recruit more participants. In total, one hundred two librarians participated in the online survey. Forty-six percent of the participants work at elementary schools, 15% at middle schools, and 39% at high schools. Twenty-five percent of the schools were urban, 45% were suburban, and 30% were rural. On average, each school has 762 students (SD = 745) and 14,794 volumes of books (SD = 10,446). Seventy-one percent of the students were Caucasian and 29% were minorities.

To answer Question 1, librarians' opinions on how digital media impact leisure-time reading will be reported using Liket-scale questions, with rankings from 1 to 5. Descriptive statistics will be reported for Question 2. Opinions from school librarians from different school types will be compared using Analysis of Variances (ANOVA) to answer Question 3.

## Results

The author estimated Cronbach's coefficient alpha (α) for the internal-consistency reliability using SPSS software. The Cronbach alpha value was 0.748 for the current sample. Cronbach alpha value exceeding .70 is considered acceptable (Helmstadter, 1964). Therefore, a moderately reliable score for this instrument has been achieved.

### The Reliability of the Questionnaire

As previously mentioned, the questionnaire was evaluated by library science professors and a statistician to ensure content validity. In addition, the author conducted factor analysis to estimate how well each question item measured the variables, which indicates the validity of the measurement. According to Table 1, three factors can be extracted from eight question items. These three factors were summarized as Entertainment (Q6_game, Q1_TV, Q5_chat), Communication (Q4_email, Q3_InetforBooks), and Social Networking (Q2_Internet, Q7_overload, Q10_family).

Table 1
*Factor Loading of Each Question Item*

| Test Items | Principal Components |
| --- | --- |

|                | 1    | 2    | 3    |
|----------------|------|------|------|
| Q6_game        | .812 |      |      |
| Q1_TV          | .792 |      |      |
| Q5_chat        | .723 |      |      |
| Q4_email       |      | .739 |      |
| Q3_IntforBooks |      | .724 |      |
| Q2_Internet    |      |      | .503 |
| Q7_Overload    |      |      | .795 |
| Q10_family     |      |      | .756 |

*Note*: Three principal components with Eigenvalues higher than one represented 64% of the total variances explained.

Table 2 listed three factors with Eigenvalues more than one. An Eigenvalue indicates the amount of variance that can be accounted for by one average variable. The higher the Eigenvalue, the more effectively a factor can be measured in a questionnaire. According to Table 2, three factors accounted for 64% of variance scores in the current study.

Table 2
*Factor Analysis on Survey Data*

| Components | Extraction Sum of Squared Loadings | | |
|------------|------------|---------------|--------------|
|            | Eigenvalue | % of Variance | Cumulative % |
| 1          | 2.52       | 31.55         | 31.55        |
| 2          | 1.45       | 18.08         | 49.63        |
| 3          | 1.16       | 14.46         | 64.09        |

*Note*: Three principal components were extracted with Eigenvalues more than one.

### Descriptive Statistics

The author calculated descriptive statistics for the responses. Some participants provided their contact information for follow-up studies, and the personal information was deleted during data analysis. Table 3 presents the descriptive statistics for the survey.

Table 3
*Descriptive Statistics for the Survey Questions*

| Questions       | Mean | Standard Deviation | Skewness | Kurtosis |
|-----------------|------|--------------------|----------|----------|
| Q1 (TV)         | 3.33 | 0.59               | -0.22    | -0.76    |
| Q2 (Internet)   | 3.12 | 0.77               | -0.14    | -1.36    |
| Q3 (I_Books)    | 1.93 | 0.74               | 0.58     | 0.42     |
| Q4 (email)      | 2.72 | 0.70               | 0.37     | -0.47    |
| Q5 (chat)       | 2.96 | 0.70               | -0.04    | -0.42    |
| Q6 (game)       | 3.39 | 0.65               | -0.80    | 0.67     |
| Q7 (overload)   | 1.72 | 0.56               | -0.04    | -0.63    |

| | | | | |
|---|---|---|---|---|
| Q8 (movies) | 3.05 | 0.63 | -0.27 | 0.59 |
| Q9 (sports) | 2.59 | 0.61 | 0.39 | -0.01 |
| Q10 (family) | 3.40 | 0.55 | -0.03 | -1.40 |
| Q11 (libwork) | 2.99 | 0.58 | 0.37 | -0.27 |
| Q12 (libprog) | 3.37 | 0.57 | -0.17 | -0.98 |

*Note*: N = 102, 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree.

Table 3 indicates nearly all variables have a normal distribution with skewness and kurtosis coefficients within the range of -1 to +1. Descriptive statistics revealed librarians agreed or strongly agreed (1 = strongly disagree, and 4 = strongly agree) with six possible items that impact youth's leisure-time reading: family influence (3.4), computer games (3.39), TV (3.33), library reading programs (3.37), surfing the Internet (3.12), and movies (3.05). Scores for other questions did not suggest plausible factors.

## ANOVA Results

To answer the second research question, the author conducted three analysis of variance tests (ANOVA). The dependent variables were the impact of TV, the Internet, and computer games on leisure-time reading, respectively; the independent variable was the academic environment of the school library (primary, middle, and high school). Levence's statistics coefficient revealed a non-statistically significant Test of Homogeneity for TV (p = .906), the Internet (p = .227), and computer games (p = .658); thus the data fit the condition for using analysis of variance (ANOVA).

Table 4
*The Impact of TV, the Internet, and Computer Games on Leisure Reading*

| Media Types | | SOS | df | MS | F | Sig. | eta$^2$ |
|---|---|---|---|---|---|---|---|
| TV | Between Groups | 7.88 | 2 | 3.94 | 7.69 | .001* | .15 |
| | Within Groups | 45.60 | 89 | .512 | | | |
| | Total | 53.48 | 91 | | | | |
| Internet | Between Groups | 9.77 | 2 | 4.89 | 3.60 | .031** | .07 |
| | Within Groups | 120.71 | 89 | 1.36 | | | |
| | Total | 130.48 | 91 | | | | |
| Games | Between Groups | 2.90 | 2 | 1.45 | 1.87 | .160 | .04 |
| | Within Groups | 68.09 | 88 | .77 | | | |
| | Total | 70.99 | 90 | | | | |

*Note*: * Statistically significant at p = .001 level. ** Statistically significant at p = .05 level.

Table 4 indicates the opinions of school librarians who work in different settings: primary, secondary, and high schools. According to ANOVA tests, there were statistically significant differences for the impact of TV (p = 0.001) and the Internet (p = 0.03), but not for computer games. The effect sizes (eta squared) are 0.15 for TV, 0.07 for the Internet, and 0.04 for computer games, indicating TV is a more important factor in influencing reading rates.

Figure 1.

*The Impact of TV, the Internet and Computer Games According to Librarians at Different School Levels*

*Note*: 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree

Figure 1 reveals that librarians working at different school levels reported the impact of TV, the Internet, and computer games to leisure-time reading differently. Based on Figure 1, primary school librarians seemed to agree with the impact of TV and computer games, but not with that of the Internet. At the middle school level, the perceived influence of the Internet increases, but it is still less important than computer games and TV. High school librarians agreed with the perceived effects of TV, the Internet, and computer games on leisure-time reading, for they themselves perceived minimal differences.

## Additional Factors Impacting Leisure Reading

Forty-three participants (42%) provided feedback to an open-ended question regarding what additional factors might impact leisure reading. The following were some examples:

A: "I think parents need to model this behavior. Students are more likely to read if they have friends who read, or if they visit a well-stocked, inviting library with a friendly librarian committed to meeting their needs."

B: "As students get older, there are more things competing for their time: heavier scholastic loads, increase in mobility with access to cars, school sports take up more time, increase in activities with the opposite sex."

C: "The 'cool' factor (those who read more are seen as 'nerds' and are less 'cool')."

D: "The internet in particular – at present – changes more WHAT students are reading than HOW MUCH they are reading."

E: "Students, at least at our school, have Sustained Silent Reading (SSR) in class on a regular basis in the middle school. This is not part of the curriculum in the high school, and they read only what the teacher selects. I think this cuts down significantly on the leisure reading of our high schoolers. If we don't demonstrate value, they place no value on it. We need to model reading as a leisure activity."

F: "Quality and availability of books that are of interest to them; knowledgeable librarians who read to and talk about books with students. Parents encouraging their children and reading with them; teachers' attitudes; open library; reading programs; time in school to read."

The author carried out content analysis of the feedback. Content analysis is a research technique used for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use (Krippendorf, 2004). The theme and sample keywords are listed in Table 5.

Table 5

*Additional Factors that Impact Leisure Reading (N = 43)*

| Themes | Number of Respondents | Sample Keywords |
|---|---|---|
| Role Models | 27 (63%) | • Parent(s), Teachers, Librarians, Friends |
| Workload | 27 (63%) | • School work (school load, required reading, extra assignments) <br> • Family work (taking care of siblings) |
| Social Influence | 17 (40%) | • "being cool" with non-reading friends <br> • family expectations <br> • distractions from TV/Internet/Games <br> • Other options/activities to do |
| Facilities | 16 (37%) | • help from librarians, teachers <br> • access to libraries: materials, programs (both positive and negative) <br> • social-economical support: food, homelessness, family culture |
| Print Materials | 13 (30%) | • Books available in general <br> • Books fitting reading level |

As seen in Table 5, 27 (63%) respondents suggested role models and workload as additional factors that impact leisure-time reading. Other important factors include social influences (suggested by 40% of the respondents), facilities (37% of the respondents), and print materials (30% of the respondents). These factors will be investigated in future studies.

## Conclusions and Discussions

Responses from school librarians suggested digital media might impact children's reading differently per age group. It can be inferred that TV, the Internet, and computer games impact those older of school library users about the same, but the Internet has less impact than other factors on younger user groups. Because of their higher reading ability, the Internet seems to impact older students more, while TV and computer games have the greater influence on younger readers. Such observations may help libraries to design more reading programs by attracting different age groups with appropriate learning media for leisure reading.

It is noteworthy that the Kaiser Foundation (Roberts, Foehr, & Rideout, 2005) recently reported that reading by youth as a collective unit might not have declined over the past five years but that it instead consumed, on average, less time than using other media. Youth tend to do more multi-tasking in media-rich environments. The present survey might help to explain how information technologies have reshaped leisure reading activities. Playing computer games, watching TV, and surfing the Internet were among those factors competing with leisure reading, but each factor has different effects on different users. If the trend of using more digital media instead of reading continues into adulthood, then the NEA's conclusion of reading in decline would seem valid. However, more studies are needed, in particular, those with data from readers and non-readers to justify the aforementioned conclusion.

Librarians who participated in the current study suggested additional factors that may impact leisure-time reading such as family role models, workload, social influences, facilities, and print materials. Experimental studies can be designed to find out how some of these factors could promote reading. For example, high schoolers who join reading clubs might change their attitude toward reading if it is perceived as a "cool" activity.

To improve the reliability and validity of the survey instrument, the author pilot-tested the questionnaire before distributing it to librarians over LM_NET; however, a sampling bias might still exist. Qualitative results from the survey will provide more abundant information, self-validate findings from this study, and limit the statistical bias. Interviews of school library experts from the United States will be conducted in future studies, further validating the questionnaire.

As recommended by school librarians participating in this study, parents and libraries need to work together so children will spend more time reading and become book lovers. Whelan (2004) suggested that libraries need to do "enough to electrify and engage them in reading." Publishers called for collected actions to bring words, paper, ink, and readers together. They encouraged authors to tour schools and local communities. It was suggested that brand books, such as Harry Potter, be promoted to the fans of already established user groups (Shandler, Thalberg, & Lichtenberg, 2004). In general, the NEA study did not report the importance of libraries in promoting literacy. However, one can still take the report as an alert for more collaborative efforts from multiple disciplines, to promote reading with both print and electronic media, and to turn around the NEA statistics.

By surveying librarians, the author worked around both the time constricts and confidentiality concerns of questioning students directly. The author acknowledges that limitations exist in soliciting opinions from school librarians exclusively. Future studies will

focus on international perspectives of leisure-time reading, in order to generalize findings from broader populations and to suggest improved practices that school librarians can enact to promote leisure-time reading.

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## Appendix: Survey Questions

1. Students who frequently watch TV read fewer books.
2. Browsing the Internet often results in reading less.
3. Students surf the Internet to find books to read for leisure.
4. Students who often spend more time on email tend to read less.
5. Online activities, such as voice/video chat, result in reading less.
6. Students playing excessive video games tend to read less.
7. Because many books are published today, it is hard for students to choose what to read during their personal leisure time.
8. Students watch more movies today rather than read books during leisure time.
9. Students who participate in multiple sporting events tend to read less.
10. Family participation, such as parents' assistance with homework, may enhance students reading books.
11. Volunteer library work encourages students to read books.
12. Library programs, such as story time or summer reading programs, encourage students to read more.
13. What are other factors that impact reading for leisure?

## Statement of Originality

# "I Hate to Read-Or Do I?"
# Low-Achievers and Their Reading

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*Phase 2 of the Barnstable Study of a web-based summer reading program focuses on low-achieving students who had a low participation rate in the first two years of the program. The researchers interviewed and surveyed seventy students who formed seven focus groups. This study challenges assumptions about struggling readers. Do struggling readers consider themselves readers outside of school, where they have choices that relate to what they like to do? Do they read? What do they read? Do they really hate to read? Gender and grade level emerged as factors in participation rates in the program. Student responses emphasized the importance of relevance of reading materials to reading preferences. Low achievers had a strong preference for alternative reading materials.*

*Low-achievers  Adolescent reading behavior  Young adult reading interests*

## Introduction

Who are the adolescents who say they hate to read? The literature says they have low intelligence and low reading levels (Hoskyn & Swanson, 2000, p. 102). "Traditionally, the struggling reader has been viewed as a low achiever." (Guthrie & Davis, 2003, p. 60). She is seen as lacking the defining attributes of the struggling reader: poor reading comprehension, study skills, word recognition, and reading fluency (Vacca & Vacca, 1999), who presents an unmotivated, disinterested affect to school and school work. Students who say they hate to read are not likely to believe or have confidence that they can read (Wigfield, Eccles, & Rodgriguez, 1998). Self-efficacy is the student's belief that he can succeed. Students who have low self-efficacy in reading believe that they cannot read even if they work hard (Zimmerman, 2000). Struggling readers resist reading or are apathetic about it. (McCabe & Margolis, 2001). It is tempting to reach the conclusion, as some researchers have, that the struggling reader "… is disengaged from literacy (Moge, et al., 2000).

This study challenges assumptions about struggling readers. Do struggling readers consider themselves readers outside of school, where they have choices that relate to what they like to do? Do they read? What do they read? Do they really hate to read? A report from the National Endowment for the Arts (2007) extends the investigation of reading trends from

exclusively focusing on literary reading to include a variety of reading, including fiction and non-fiction genres published as books, magazines, newspapers, and online reading. Despite the inclusion of non-traditional reading formats, the report cites a downward trend in reading among secondary-aged students since 1992: 1) Less than one-third of 13-year-olds are daily readers; 2) 15- to 24-year-olds spend only 7-10 minutes per day on voluntary reading, which is about 60 percent less time than the average American. (U.S. Department of Labor, Bureau of Labor Statistics, 2006). The percentage of 17-year-olds who read nothing at all for pleasure has doubled over a 20-year period. (U.S. Department of Education, National Center for Education Statistics, 2004). The report noted that the percentage of thirteen and seventeen year-olds who said they read for fun almost every day was lower in 2004 than in 1984. (U.S. Department of Education, National Center for Education Statistics, 2004). There was also an increase over the same period of time in the percentage who said they never or hardly ever read for fun. For all three ages, "…reading for pleasure correlates strongly with academic achievement." (National Endowment for the Arts, 2007, p. 12). Students who said they read for pleasure on a daily or weekly basis score better on reading and writing tests than infrequent readers (National Endowment for the Arts, 2007).

There is abundant evidence that reading for pleasure, or Free Voluntary Reading (FVR) (Krashen, 2004) reaps benefits to the reader that equal or exceed direct instruction in reading remediation. A meta-analysis compared studies of in-school free reading with traditional, direct instruction approaches to reading remediation. "In 51 out of 54 studies, students using FVR did as well or better on reading tests than students given traditional skill-based reading instruction (Krashen, 2004, pp. 2-3). Several studies have focused on free voluntary reading and low achievers. McNeil, in Fader, (1976) examined the effects of a free reading program on 60 reform school boys, ages 12-17, who were encouraged to read newspapers, magazines, and paperback books. Reading was followed up by class discussion. After one year, the boys' reading comprehension scores increased from 69.9 to 82.7, or 12.8 points, while the comparison group made a gain of 4.6 points. Shinn (2001) examined the effect of a six-week self-selected reading experience among 200 sixth grade low achievers who attended summer school because of low reading proficiency. About 30 percent of each group were limited English proficient as well. Of the four hours per day of classes, two hours were devoted to self-selected reading, including 25 minutes in the school library. In addition, for about 45 minutes per day students read young adult novels. The comparison group followed a standard language arts curriculum. The readers gained approximately five months on the Altos test of reading comprehension and vocabulary over the six weeks, while the comparison groups' comprehension declined. On the Nelson-Denny reading comprehension test, the summer readers raised their comprehension scores by a whole year or more. Studies also show a relationship between amounts read and spelling performance (Stanovich & West, 1989; Polak & Krashen, 1988) and a positive relationship between reading and writing ability (Lee & Krashen, 1997; Lee, 2001).

In light of this evidence it is significant that there is, "A downward trend in voluntary reading by youth at the middle and high school levels over the past two decades" that clearly signals that something other than reading for fun is occupying their time." (Alverman et al, 2007, p. 34). That something may well be emerging literacies based in digital technologies. "What counts as literacy-and how literacy is practiced-are now in historical transition, and young people…are at the vanguard of the creation of new cultural forms" (Hull & Zucker, 2004, p. 42). "How do youth who are underachievers and who struggle when reading school-assigned textbooks engage with popular culture of their own choosing (e.g., magazines, comics, TV, video games, music, CDs, graffiti, e-mail, and other Internet-mediated texts)?"

(Alverman, et al, 2007, p.36). There is little in the literature about the personal and everyday literacies of adolescents (Alvermann, Fitzgerald & Simpson, 2006), despite the attention given to the potential of these literacies for engaging adolescents with reading (Alvermann, Huddleston, & Hagood, 2004; Moje, Young, Readence, & Moore, 2000). Do struggling readers hate to read? What are their attitudes and every day information behaviors?

## Reading Takes You Places, Summer 2006

This study is the second phase of a study (Lu & Gordon, 2007) that examined the effects of a web-based summer reading program on adolescents' reading interests, attitudes and behaviors. The site for both phases of the study was Barnstable High School (BHS), located in Hyannis, Massachusetts, sixty miles east of Boston. The population of the town is 40,949. The median household income is $46,811, higher than the national median of $41,994 (U. S. Census Bureau 2000). BHS serves 2,000 students; 92 percent of the population is white. The largest minorities include African Americans (almost 3 percent) and Hispanic/Latinos (almost 2 percent). The school's mission statement encourages "…traditional and innovative methods to engage the different learning styles of our students. We will prepare graduates to take responsibility for their own learning." (Barnstable High School Program of Studies 2004, p. 3) The school is administered by a principal, an assistant principal, and five housemasters, who oversee the daily operations of five self-contained houses. There are three ability groupings of students within each house: low achievers who tend to be reluctant readers with low reading and standardized test scores; average achievers; and Honor students. The BHS library strives to be an integral part of teaching and learning, and its mission is to play an active role in instruction through strong collaborations between the school librarian and classroom teachers.

The web-based summer reading program was designed by a committee that included five English teachers and the school librarian. The charge of the committee was to revise the summer reading lists for each grade level. The committee decided to shift their thinking to conceptualizing a summer reading program and agreed-upon, research-based guidelines:
People who say they read more read better (Krashen, 2004), therefore the primary purpose of the program is to encourage students to read more. The following research findings informed the design of the original summer reading program and continues to inform revision of the website.

1. The program offers students choice because choice is an important element in reading engagement (Schraw et al. 1998). This includes the choice to pursue personal reading interests. To this end, the school librarian administered a survey to students to collect their recommendations for book titles. Staff recommendations are collected through e-mail.
Student projects accommodate multiple intelligences (Gardner, 1993) and thinking styles (Sternberg, 1997) as well as options for written work.

2. Because " ... results suggest that schools can encourage children to read more by also requiring them to complete a short writing activity based on their summer reading activities ... ." and that "students who fulfilled teacher requirements by writing about their summer book ... are predicted to read more books than their classmates who did not complete these activities," (Kim, 2004, p.185) reading responses include writing activities.
Reading response projects reflect activities students enjoy in their leisure time are grounded in reading response described as the aesthetic stance in transactional theory (Rosenblatt, 1978).

3.  The summer reading program is web-based because "virtually all Net Gen students were using computers by the time they were 16 to 18 years of age ... Among children ages 8 to 18, 96 percent have gone online. Seventy-four percent have access at home, and 61 percent use the Internet on a typical day." (Jones, 2002)

4.  In a study that altered text instructions in an assignment to a graphic layout, there were fewer refusals to do the assignment and post-test score increased (Prensky, 2001). Because the net generation is not only attracted to image-rich environments, but is more comfortable with them, the web site is visually attractive with lots of colorful graphics.

5. In order to encourage students to read more, the primary purpose of summer reading is reading for fun rather than for academic purposes.

The results of the first phase of the study in Fall 2006 (Lu & Gordon 2007) showed that while average and Honor students had a high participation rate in the web-based summer reading program, low achievers had a poor rate of participation. Nor were they well represented in the survey used to collect data. When low achievers did respond, there were negative references to reading. The researchers returned to the research site after the second administration of the web-based summer reading program in the Summer, 2007 to study low achievers' reading interests, attitudes and behaviors.

## Flop Down and Flip the Pages, Summer 2007

The second edition of the summer reading program, *Flop Down and Flip the Pages*, can be seen at  http://www.barnstable.k12.ma.us/bhs/Library/SummerReadingProgram.htm. (This is a working web site that undergoes revision each spring.) There are thirteen book lists; some are genre-centered, but modified for broader appeal. For example, science fiction includes time travel and fantasy. Each title recommended by student or staff is tagged with a "thumbs up" icon. Because the school has a Brazilian population of students whose first language is Portuguese, titles by Brazilian authors are included in as many lists as possible to encourage these students to read in Portuguese as well as English, since primary language plays a significant role in the intellectual growth of bi- and multi-lingual children (Cummins, 1981).

The reading lists are designed to mimic commercial web pages, such as amazon.com, with an annotated featured title and image at the top of each page. A link to NoveList directs students to find "more books like this one." Another feature, Get Books, leads students to links to the catalogs of the school library and regional public library collaborative network. There are also links to Borders and Barnes & Noble web sites where students can purchase books.

The last section of the website is called "Reading Reponses."  Students choose activities from 15 Novel Ideas that mimic what they like to do in their daily lives, such as talking on the phone and surfing the web. Other choices include blogging, an exercise called "How to Judge a Book by its Cover," and joining summer reading in the college they are considering.

## The Study

*Demographics of the sample*

The sample consisted of 70 low-achieving students from grades nine through twelve. The unit of selection was English classes, grades nine through twelve, which are homogeneously group by ability. This ensures that all student participants are low achievers. The sample of 70 low-achieving students was randomly selected from English teachers who were willing to participate in the study. Of 70 low-achieving participants, 37 were male, and 33 were female. There were 25 grade-nine students, 20 grade-ten, 22 grade eleven, and three grade twelve students. 41 percent of students (29 out of 70) reported they participated in the school summer reading program. Participants by grade level were: 8 from grade nine, 7 from grade ten, 12 from grade eleven, and 2 from grade twelve. There were 19 female students and 10 male. Analysis showed that female students have a higher participation rate than male students (58 percent to 27 percent). Also, grade twelve and grade eleven students had comparatively higher participating rate (66 percent and 55 percent) than grade ten and grade nine respondents (35 percent and 32 percent, respectively).

*Data Collection*

The researchers conducted seven homogeneous focus groups consisting of students from grades nine through twelve. In these sessions students explored their views and attitudes about reading. Each student responded to a survey following the focus group discussions, which were 15 to 20 minutes in length. Close-ended questions gathered information such as age, gender, and grade level. Half of the questions were open-ended to encourage students' direct and honest response about their reading behaviors and attitudes. Survey items focused on respondents' book selections, reading achievements, attitudes towards reading, and reading experiences via alternative media such as newspapers, magazines, and websites.

## Findings and Discussion

*Participation in the web-based summer reading program*

Fifty-nine percent of the low-achieving students in the sample (N=70) did not participate in the summer reading program. Most non-participants said they simply did not like reading and they did not read. No participants complained about computer and Internet access. Access, or lack of access, to computers and the Internet was not perceived as a major barrier to participating in this web-based reading program. The result that male students have a higher non-participating rate than girls (72 percent to 42 percent) is consistent with studies that acknowledge the significance of gender in reading activities. Additionally, grade level seems to be an indicator of low-achieving students' reading behavior: the higher grade level, the better the participation. This may have been that some grade nine respondents were not aware of this summer reading program when they transitioned from middle schools to high schools, although as outgoing grade 8 students they did receive information about the web-based summer reading program. It may also be explained by the fact that there were only 2 grade twelve, low-achieving students in this study, compared with more than 20 students from each of other grade levels.

*Amount of books read*

Students were asked to read three books during summer and complete a project for each book in the Fall. A total of 57 books were reported read in summer by 27 low-achieving students, with two other students reporting "reading a lot." The mean was 2.1 books per participating student, which was nearly one book more than the mean measured the previous year in the same school (Lu & Gordon, 2007). Unlike the previous year, there was not a significant gender difference in the amount of books read. On average, female students read only slightly more books than males (2.2 books to 1.8 books). Nor was grade level significant in terms of the number of books read. The ratio across the four grades was 1.8 to 2.6 to 2.1 to 2.0 books.

*Reading interests*

Two variables were used to examine students' reading interests: their self-reported interests and their reported reading behaviours, including the book lists students chose to browse.

During the focus group discussions students emphasized the importance of "being able to relate to" what they read. These students liked "something true and exciting," "things about real people," "stories about current modern teenager life," and "[books] about everyday life," to name a few. They did not like "things that are not real [referring to fantasy and science fiction]," "books that drag on [referring to length]," and "books that are too wordy [referring to long descriptions]." Not surprisingly, these low-achieving students did not like *Harry Potter*, a high interest book among most teens, which had each of the negative elements they mentioned. Only four of the teens had read one or two books of the *Harry Potter* series. None read more than three books in the series. Another high interest genre among teenagers, manga, or comic books, did not work with these low-achieving students either. Only one of them had read manga or comic books. Many of them were not familiar with the word "manga."

The survey findings were consistent with the results of the focus group discussions. Regarding the books they read in summer, respondents reported 44 titles used for reading projects. Six of the titles were not included in this analysis because of illegible handwriting, incomplete or incorrect titles, or respondents' inability to recall titles. Thirty-eight books were then classified into three categories: Realistic fiction (70.5 percent), fantasy and science fiction (16 percent), as well as non-fiction, including autobiography and biography titles (13.5 percent). The significant difference between realistic fiction and the other two categories among low-achieving students is not surprising considering their preference for real-life characters and themes. Even the non-fiction books they read (i.e., *A Child Called It* by Dave Pelzer, its sequel *The Lost Boy*, and *Juiced* by Jose Canseco) had similar humane characteristics and strong narratives.

The students' reading interests were reflected by the book lists they chose to browse. The summer reading program provided 13 book lists for the students. Among those low achievers who participated (n=29), 66 percent of the students (19 out of 29) browsed the lists. The top three lists browsed most frequently were, *The Romance, the Drama & the Angst*, (which contains popular titles about romance, love, and relationships), *Award and Honor Winners*, (which offers a variety of young adult award-winning titles by popular authors), and *Run with a Winner: Best Sellers*, which includes titles from bestseller lists of contemporary, realistic novels from the *New York Times* bestseller lists.

Were there any gender differences in terms of reading preferences and interests? Results of this study do reveal some differences, but unfortunately, the sample size—only 29 summer reading participants—was too small for statistical analysis. There are, however, some interesting gender-related findings worthy of further observation. (Figure 1) For example, the most popular list, *The Romance, the Drama & the Angst*, was browsed exclusively by females. In contrast, the list dedicated solely to boys, *Guys Eyes Only*, was visited by one male low-achieving student. The popularity of the romance/drama/angst list among female students points out that girls were interested in this category and were willing to explore and browse the list. It indicates that this list is meeting the female readers' needs. Male students, however, did not show a penchant for any specific categories. Since only one boy browsed the *Guys Eyes Only* list, it is difficult to gauge their attitude towards this category. Perhaps they did not have interest in this specific category, or they did not see this list because they would have to scroll to the bottom of the web page to find it. Perhaps they chose not to browse because "I know what I want to read," as one male student commented.

**Figure 1: Book Lists Browsed by Gender**
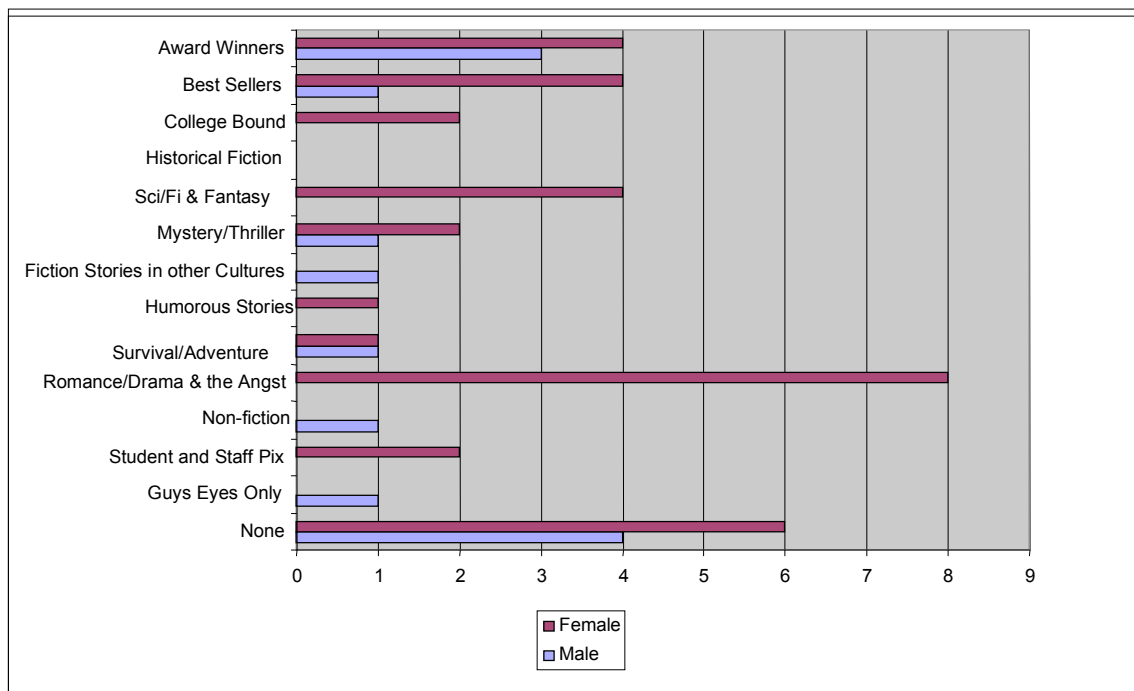


The most important factors affecting participants' book selection were illustration and cover (28 percent), subject (21 percent), length (21 percent), and recommendation by a friend (21 percent). Random selection was reported by 21 percent of respondents.

*Alternative Reading*

One question posed to all low-achieving participants and non-participants of summer reading was whether they read any of the following materials during the past summer: A newspaper article, a magazine, a website or anything on the Internet, sports news, and/or a comic or manga book. The purpose of this question was to explore whether low-achieving students read alternative media. Low achievers reported that they read newspaper articles (60 percent), magazines (60 percent), websites (71 percent), sports news (34 percent), and comic/manga books (11 percent). Only 7 out of the 70 low-achieving students (10 percent)

reported that they did not read materials in any of these formats. This indicates that these low-achieving students, who said they hated to read, were actually engaged in reading media other than books.

A comparative analysis of alternative reading between summer reading participants and non-participants did not yield significant differences (Table 1). Differences ranged from 2 percent to 10 percent, in 4 out of the 5 the alternative media categories. The only major difference (19 percent) emerged in comparing newspaper reading between participants and non-participants. The cause of this difference is uncertain. Perhaps students who participated in summer reading (i.e., book reading) were more comfortable with reading newspaper articles, which are usually text-loaded.

**Table 1: Alternative Reading by Summer Reading Participants and Non-Participants**

|  | Participant (N=29) | | Non-Participant (N=41) | |
|---|---|---|---|---|
| newspaper article | 20 | 69% | 21 | 51% |
| magazine | 19 | 66% | 23 | 56% |
| website | 21 | 72% | 29 | 70% |
| sports news | 12 | 41% | 13 | 32% |
| comic/manga | 3 | 10% | 5 | 12% |

Two categories yielded substantial gender differences: magazine and sports news (Table 2). The biggest gender difference in alternative reading appeared in the category of "sports news." While 21 male students (57 percent) read sports news, only 4 female students (12 percent) did so. The popularity of sports news among boys indicates that this is probably a category or subject that is comparable to romance/drama/angst for girls. The second biggest difference came from magazine reading: 49 percent boys read magazines as compared with 73 percent of girls.

**Table 2: Alternative Reading by Gender**

|  | Male (N=37) | | Female (N=33) | |
|---|---|---|---|---|
| newspaper article | 20 | 54% | 21 | 64% |
| magazine | 18 | 49% | 24 | 73% |
| website | 24 | 65% | 26 | 79% |
| sports news | 21 | 57% | 4 | 12% |
| comic/manga | 4 | 11% | 4 | 12% |

*Reading Achievements*

Students reported a variety of rewarding benefits from reading, ranging from technical components, such as grammar, to content, such as "information about other people," to psychological and social components such as "dealing with discrimination." It is noticeable that among all the reading benefits these students mentioned, a majority of them were associated with dealing with personal challenges such as "depression," "friendship issues," or "relationship problems." Only three students mentioned "knowledge," "sports news," and "information about other people." Two students pointed out "vocabulary" and "grammar" as their reading benefits. The overwhelming importance of learning life lessons identified by the students is not surprising, given that this group of students showed a strong preference for contemporary realistic fiction, which typically addresses a variety of social issues.

## Implications for Further Study

Emerging from these findings is a snapshot of low-achieving students' reading interests, reading behaviors, and their perceptions of the benefits associated with reading. The findings point to more differentiation in service provision, outcome measurement, and accessibility of reading media to meet the diverse needs of low-achieving students.

The findings reveal that low-achieving students favor stories that have a realistic and humane touch. For many of them, such stories seem to function as a tool for developing, or even molding, individual behavior and personality, as evidenced by their testimonies in the previous section that describe their perceptions of the benefits derived from reading. They seem to acknowledge that realistic stories and believable characters contribute to their personal growth by helping them tackle life's challenges. This is consistent with contemporary folklore research suggesting that stories play a significant role in "stimulating the intellectual, spiritual, and psychological development of human beings" (King, 1992, p.1). However, the evaluation of reading benefits in schools has rarely looked at these social and psychological elements.

The measurement of reading outcomes has been quantity-driven for decades. We measure the amount of books students read and we use standardized tests to evaluate how well students read. However, books are not the only reading medium, and standardized reading tests can not reveal the private and personal learning experiences identified by low-achieving students. Reading offers them life lessons and new insights into personal challenges. Although evaluation of these personal aspects can be difficult and subjective, we should acknowledge that individuals may benefit from reading in different ways. This points to the need to provide materials and structures that help students grow, not only cognitively, but psychologically, emotionally, and socially, through their reading experiences. These benefits of reading may be more critical to the well-being of low-achieving students than is obvious, especially when they tell us how much they hate reading.

This study has implications for further research that addresses 21st century reading and learning. One of the most important international definitions of reading literacy comes from the Programme for International Student Assessment (PISA) survey administered by the Organization for Economic Co-Operation and Development that surveyed 265,000 students from 32 countries. Their results found that reading literacy is no longer considered to be simply the ability to read and write. Today, "reading literacy is understanding, using, and reflecting on written texts, in order to achieve one's goals, to develop one's knowledge and potential, and to participate in society" (OECD, 2003, p. 108). This definition looks at how

well students can use written materials to meet the challenges of the real world and to become lifelong learners. This definition also echoes our findings about the reading behaviors of low-achieving students in dealing with life lessons through reading. Low-achievers are well-aware of their need to life vicariously through story. As we develop a perspective on reading that goes beyond standardized tests, a new theoretical framework to encompass different reading competencies appears to be needed. An improved pedagogy should address the affective dimension of reading as well as reading for comprehension. The resistance of parents and educators to see adolescents as something more than students who happen to be taller and older than children obscures the importance of their adolescent needs to relate to the stories for which text is the delivery mechanism. Rigidity about what students should read, compounded by an institutional insistence on accountability for "voluntary" reading, actually creates barriers to motivating student to read. The problem of low reading scores and declining reading for pleasure may be one of aliteracy, rather than illiteracy. Is a monolithic, institutionalized approach to free voluntary reading in schools actually discouraging low-achieving adolescents, rather than encouraging them to read?

It is significant that low-achieving students are reading alternative media. While most of them saw book reading as "boring," "waste of time," "too wordy," and "a headache," they enthusiastically engaged with reading other formats, such as newspaper articles, magazines, and websites. This finding has strong implications for school library professionals in designing and evaluating our services to students. The library collection should reflect this reading trend. Circulation policies that offer only books to struggling readers are obstructive and need to change to include alternative media. The design of reading services such as summer reading, an important component of school library services, should include alternative media. In addition to book lists, the school library can provide magazine lists, article clippings, and webliographies that contain high interest websites that address students' diverse needs.

The strong rationale for reading alternative media must continue to drive rigorous research to develop multiple models of reading approaches for all students, but particularly for struggling readers. To this end, research-based reading practices are critical to successfully addressing questions raised by this study. Findings about the importance of the social, psychological, and emotion elements, as well as the academic benefits, of reading to the well-being of adolescents invite further research that examines literacy from a more holistic perspective.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# The Reading Mandala
# A Scalable Model for Developing
# Reading Habits in Children in Rural
# China

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*This study proposes and reports on a framework for encouraging adoption of the reading habit among school-aged children in rural China framed within the context of donor support. It is based on observations from site visits to five Chinese provinces and draws on evidence from both developing and developed countries. The resulting framework reflects library science, pedagogical and systemic elements. Key aspects include: mutual obligations between partners, initiation and support of free voluntary reading, training for library staff, standards for libraries and the role of leadership at all levels. The early impact of implementation of the model is described.*

*Reading habit adoption; libraries in developing countries; donor reading programs*

## Introduction

The Chen Yet-Sen Family Foundation (CY-SFF) organizes and sponsors a range of projects in developing countries. These include reading projects in rural China in a number of provinces including Anhui, Jiangsu, Kansu, Zhejiang and Yunnan. In 2006 the CY-SFF decided to evaluate the effectiveness of the projects and develop a more systematic framework for the development of existing and new reading projects. The resulting report was derived from a combination of: observations from visits to reading project sites; review of the relevant literature; interviews with stakeholders and others with relevant expertise; the experience and insights of the authors; and feedback from the local Chinese participants. The proposed reading model was presented at the *Reading to Learn Conference* (Henri, Warning, & Leung, 2007a) in July 2007. Feedback from delegates was then incorporated into the final report. Elements of the model hav been discussed in other forums (i.e. Henri & Warning, 2008). This paper is based on the report and subsequent visits to project sites in China provinces.

# Research questions

The authors research outcomes involved creating a scalable model for cultivating reading habits in children in rural communities in a developing country. An additional planned outcome of the project is to change community attitudes towards the value of reading. To address these outcomes, the following research questions were addressed:

1. What are the components of effective reading programs?
2. How can an effective reading program be applied to poor rural areas in China?
3. How can the resulting reading program be implemented in diverse environments?
4. How can community attitudes towards reading be changed?

# Methodology

To address these research issues, the researchers have employed the following methods:

*Review of the literature*. Based on their professional experience and a review of the literature, the researchers identified the components of effective reading programs. This addressed research question 1.

*Systems analysis*. In collaboration with CY-SFF personnel, the researchers developed a table of inputs, processes and outcomes/impacts that would form the substantive elements of the proposed reading program model (see Table 1). This also addressed research question 1.

Table 1
Systems Analysis of the Reading Projects

| *Inputs* | *Processes* | *Outputs/impacts* |
|---|---|---|
| Parents/relatives | Library training | Active readers |
| Volunteers | Integrating reading into the classroom | Reading to Learn in curricula |
| Teachers | Reporting | Change in community |
| Other professionals | Encouragement | perceptions of the value of |
| CY-SFF staff | Instruction | reading |
| Partner organizations | Evaluation & comparison | Changes in attitudes & values |
| Government | Promotion | Community support & |
| Books, comics etc. | Networking | involvement in reading |
| Supplementary materials | Liaison | schemes |
| Conservation materials | Selection/matching | Linkages to students' future |
| Equipment | Access | learning results |
| Facilities | Rotation | Scalability of reading project |
| Information | End processing | model |
| Transport | Maintenance | Cost-effective model |
| Funds | Access | Reciprocal funding |
| | Manipulation | Exit strategy |
| | Coordination | |
| | Accounting | |
| | Cost-benefit analysis | |

*Site visits and interviews*. To date the researchers have undertaken a total of ten site visits to projects in five provinces of China. Translators and CY-SFF personnel accompanied the researchers on these visits. During th visits, interviews were carried out with: students; parents/guardians; school librarians; teachers; principals; and local education authority officials. These interviews, supplemented by inspections of libraries and classrooms provided the researchers with an understanding of the local environments, as well as the attitudes towards reading of all the stakeholders. Existing and potential limitations on the provision of library services and reading programs were noted. These visits were carried out at different stages of the project. This has enabled the researchers to identify progress within the projects. The results of the site visits contributed to research questions 2, 3 and 4.

## Literature review

This review of the scholarly and professional literature was undertaken in June 2007. The results are derived mainly from education and library science databases such as: *ERIC, LISA,* and *Library Literature*. Additional databases such as *AEI, ALIS, Proquest, Ebsco* etc. were interrogated. *Google* and *Google Scholar* were also applied. It is not a comprehensive review of the literature, but is representative of key features that have an impact on the development of the reading habit and the provision of library services in schools in developing countries. Where the content can be applied to reading programs in rural China, sources dealing with reading programs from developed countries are included. It is divided into the following areas: administration and planning; reading materials; access to reading materials; reading instruction and activities; assessment of children's reading performance; reading promotion activities; facilities and equipment; impact of library staff; use of volunteers; principal support; role of teachers; and  role and impact of parents

### Administration and planning

Successful reading programs demonstrate that systematic and detailed administration is a key success factor. The characteristics of target audiences and the reading environment (e.g. culture, physical environment, economic and political conditions) vary in different countries, communities and schools, so programs require carefully planning during the content design and implementation stages of the project to match users' needs.

Room to Read programs and Book Flood in Sri Lanka indicate the importance of well designed administrative scaffolding, and appropriate monitoring and evaluation methods (Grayson, 2006). Partnering schools, local organizations, and donor organisations should allocate resources and budget to administration of the reading projects according to the projects' evolving requirements (Fudan University Department of Social Work, 2006).

Arboleda, Chiapp and Colbert (1991) identified preconditions for program expansion in Columbia that reinforce the importance of effective administration. Political commitment to support programs, appropriate administrative methods, and core teamwork during the initial stages are important elements. Successful programs require good coordination and communication between governments and the target organizations, between the organizations and the community, between the donor organisations and the schools, between the schools and the teachers, between the schools and the parents, and among schools (Room To Read, 2007a, 2007c). Regular reporting and sharing can improve the program and is also a crucial factor in the ongoing maintenance of partnerships (Gu, Chen & Zhang, 2006).

## Reading materials

Large volume and range of interesting reading materials are key factors for reading program success (e.g., Elley, 1996b; Guth & Pettengill, 2005; Krashen, 2004a; Rodriguez-Trujillo, 1996). Materials should match the audiences' interests and abilities, and relate to their lives. The books should cover a wide variety of subjects. It is important that young children be exposed to colourful materials such as well-illustrated stories and posters and pictures. Teachers, students and parents should be involved in the book selection process to ensure that the books are suitable for student's level (Guth & Pettengill, 2005). Schools should not focus on building collections that only cover curriculum materials. These materials can decrease children's interest in leisure reading and dilute the original intention of a reading program (Krashen, 1993, 2004b).

Book rotation and donation of books are effective methods to provide larger collections from limited budgets. Rotation of materials can broaden content of reading (Gu, Chen, & Zhang, 2006) and is often a first step to develop effective school libraries in developing countries (Knuth, Perry, & Duces, 1996). Transportation costs, effectiveness and timing, as well as record keeping and security of materials are complications that need to be considered (Knuth et al., 1996). Book donation programs should be demand driven (Durand & Deehy, 1996). Poor quality books may discourage reading, so the quality of donated books should be assessed before acceptance.

## Access to reading materials

Ease of accessibility to reading materials encourages reading. Reading corners in classrooms, theatres, villages etc. provide easy and convenient access. Cheunwattana (2003) describes a range of different types of mobile libraries operating in Thailand. These include the Portable Library Project that makes available recreational and informative books to rural children. Mobile libraries have been employed successfully, using a range of transportation methods to bring books to remote communities, e.g. by bus, car, boat (Lerdsuriyakul, 2000), bicycle, elephant (Forsyth, 2005), camel (Atuti & Ikoja-Odongo, 1999; Passchier, 2002a) and donkey (Passchier, 2002b).

## Reading instructions and activities

Students in a large study of the reading activities of middle school students in the US (Ivey & Broaddus, 2001) indicated that they most valued independent reading and the teacher reading aloud. Students also indicated that they enjoyed free reading in a quiet environment without being disturbed or distracted by other tasks (e.g. answering questions). They also noted that finding good materials and having choice in the selection of reading materials were major factors in their desire to read during class. In contrast, assigned reading (books selected by teacher) was considered one of the worst reading experiences by students; students did not understand the purpose of reading exercises and most instructional time was devoted to activities which aimed to extend their knowledge of the content of the book, rather than to enhance their desire to read.

Teachers who were very competent at reading aloud engageg the students. Teachers made the text more interesting by asking students to predict what would happen in stories (Ivey & Broaddus, 2001; Perry, Nordby, & VandeKamp, 2003). Increased interaction between teacher and students increased students' reading interest as well as their reading abilities. The engagement brought about by reading aloud is in sharp contrast to witnessed evidence of student's experiences in reading programs in China, where they were usually required to complete tasks after reading (e.g. reading reports and reading notes). This increases pressure on

students and reduces their enjoyment of reading. Students' preferences for reading activities should be monitored in order to understand of their needs. Referring to the US situation, Ivey & Broaddus (2001) note:

> Most importantly, students are expected to become independent readers, yet they get limited opportunities to explore their own interests in *reading*, to *read* at their own pace, or to make their own decisions about whether or not to *read* a book. In short, if the goal of instruction is to create skilful, versatile, engaged readers, then middle schools may be missing the mark.

## *Assessment of children's reading performance*

Research indicates that good readers become good learners. Where schools integrate reading into the curriculum it is essential that they measure the success of the interventions, as well as the progress of individual students. The International Reading Association (2007) provides an array of resources to enable quality assessment. The rationale for the delivery of reading may focus upon free voluntary reading. When students read enjoyable literature they are likely to become avid readers who will be equipped to read to learn. When the focus is on free voluntary reading any assessment should be strictly related to that, rather than to other issues.

The tendency in an examination and testing dominated culture is to bombard students with a variety of task-oriented or mark-oriented activities such as book reports and compiling reading notes. These activities distract from the purpose of the exercise and also create work for teachers who are required to mark the various reports. This raises the issue of whether the students enjoy reading or just simply want to complete tasks set by teachers.

Rewards can increase the probability that people will do something. The goals of reward are to change people's behavior and keep them doing it even they are no longer rewarded (Kohn, 1993). Applying a reward system to encourage reading can be attractive to students but, as the evaluation report of Fudan University (2006) indicates, the reward system may be counter-productive in the case of reluctant or impaired readers who are considered failures by their peers.

## *Assessment of reading programs*

Schools often focus on quantitative measures such as usage of library materials to indicate the success of reading programs. They may neglect the ways that the leisure reading habit is cultivated. Schools in Hong Kong provide borrowing statistics to the Education Department to indicate progress in reading initiatives (Lau & Warning, 2007). These figures do not take account of the full range of reading activities and sources of reading materials that children can access, e.g. books and magazines from public libraries or purchased by parents.

A number of guides for evaluating reading programs have been developed in the West (e.g. Kameenui, Simmons, & Cornachione, 2000). They primarily deal with programs to improve literacy but can still relate to leisure reading promotion. Some deal with evaluating the scaffolding to support the reading program, addressing issues such as parental awareness of language development, adequacy of school reading materials, length of time spent in reading and the nature of materials children read (Farr & Greene, 1999), silent reading and reading aloud (Partnership for Family Involvement in Education, 2001), encouragement and engagement of the children during reading (Hagerty, Foster, & Cobb, 1998) etc.

Reading programs should include a clear mechanism for evaluating the success of reading activities, revealing the needs of students, identifying problems, and providing constructive results for improvement and further development of the reading project. Schools

and organizations should organize self-evaluation with collection of both qualitative and quantitative data. Interviews, focus groups, and surveys can be done to collect qualitative data to indicate if the programs are achieving their goals. Program success should be measured by students' development and changes in behaviour rather than statistical data.

## Reading promotion

Successful reading programs require promotion in order to compete with other recreational activities for children's time (Lau & Warning, 2007). The purpose of school reading promotion is to provide channels for students to connect to reading programs and activities. Conducting potentially large activities like reading club meetings and competitions, or similar programs like reading guidance programs can encourage students' participation in reading activities and draw their attention to the importance of reading. Promotion can also involve competitions. An example is the Battle of the Books, which began in the United States in the early 1990s (America's Battle of the Books, 2006), but has spread worldwide.

Publications such as posters, pamphlets, brochures, and reading lists may be effective in promoting reading for children, parents as well as the communities. Promotion should create a positive atmosphere for reading and increase the awareness of the community to the importance of children's reading.

## Infrastructure: Facilities and equipment

Safe, attractive and comfortable reading areas encourage reading. Tables and seats should be provided so that children can have a comfortable place to read. Computers can support the management of collections and reading activities, as well as the development of students (Gu et al., 2006), contributing to better catalogue access and circulation.

Small collections can be attractively displayed and do not need sophisticated management. Once a collection reaches the size of a library, efficiency dictates the adoption of a basic library system including: book recording system; circulation system; and cataloguing/classification system. In developing countries, library infrastructure and trained staff are not always available. Successful reading programs can still be introduced and thrive, e.g. the Osu Children's Library Fund in Ghana (Cowley, 2001) and the Bring Me a Book Foundation.

## Impact of library staff

School libraries have a profound effect upon student learning (e.g. Hay, 2005; Lance, 2004; Lonsdale, 2003; Ontario Library Association, 2006). Lonsdale (2003) indicates that:

- A strong library program that is adequately staffed, resourced and funded can lead to higher student achievement regardless of the socioeconomic or educational levels of the adults in the community
- A strong computer network connecting the library's resources to the classroom and laboratories has an impact on student achievement
- A print-rich environment leads to more reading, and free voluntary reading is the best predictor of comprehension, vocabulary growth, spelling and grammatical ability, and writing style
- Integrating information literacy into the curriculum can improve students' mastery of both content and information seeking skills; and that libraries can make a positive difference to

students' self-esteem, confidence, independence and sense of responsibility in regard to their own learning

The key results are that the extent of free voluntary reading and the professional ability of the person in charge of the library are key indicators of success. A small library does not require the appointment of a fully qualified school librarian but needs someone who: demonstrates a love of reading; knows how to actively promote reading and to engage children; knows how to select appropriate titles; and is able to act as an advocate for free voluntary reading within the school.

## Role of volunteers

Schools and libraries have a long history of using volunteers. Research indicates that volunteers, including family, parents and others from the community, can assist teachers in the teaching of reading (Elliott, Arthurs, & Williams, 2000). Volunteers are unlikely to have qualifications in teaching or reading instruction, so structured training should be provided (Elliott et al., 2000).

Reading programs in developing countries often rely on volunteers due to human resources limitations, e.g. the Osu Children's Library Fund in Ghana (Osu Children's Library Fund, n.d.) and Bring Me a Book Foundation (Bring Me a Book Foundation, n.d. b) recruit volunteers.

Library volunteers can undertake routine tasks to free the librarian to perform more professional duties including planning and implementing reading activities. Volunteers require management and training. There are a number of guides that provide advice on how to accomplish this (e.g. Driggers & Dumas, 2002; Hoagland, 1984; Reed, 1994).

### *Principal support*

Principal support is vital to the development of school library services and the success of free voluntary reading (Henri, Hay, & Oberg, 2002; Oberg, Hay, & Henri, 2000). Henri & Boyd (2002) identified that the relationship among the principal and school librarian was a crucial factor for school library development.

A challenge for a sponsoring organisation supporting free voluntary reading in a school environment is that it may difficult to maintain an ongoing relationship with a principal since appointments may be short term only; as soon as a strong relationship is formed, the process must begin again. In these circumstances the support for the school library from within the school may be inconsistent (Knowles, 2007b).

### *Role of teachers*

"Teachers who promote the lifelong reading habit increase the chances that children will not only become effective readers but also engage in reading for the rest of their lives" (Sanacore, 2001). Teachers can provide space within their classrooms for free voluntary reading (Sanacore, 2006). This ensures students recognise that reading is encouraged by all school staff and is not an activity confined to the library. For students who have difficulties in reading, teachers should pay additional attention to them and provide adequate assistance (International Reading Association, 2000). However, teachers in developing countries may not be sufficiently trained with practical skills.

*Role and impact of parents*

Positive experiences with literacy from an early age and support for reading-related activities at home are important factors for predicting reading success (Heilman, Blair, & Rupley, 1998; Snow, Burns, & Griffin, 1998). Parents are best placed for having an impact on children's early reading behaviour (Sangkaeo, 1999). According to Bus, van Ijzendoorn and Pelligrini (1995), "the single most important activity for building understanding and skills essential for reading success appears to be reading aloud to children." The positive educational and literacy effects of reading to young children has been recognised since the 1980s (e.g. Wells, 1985; Wells, Barnes, & Wells, 1984).This view has been investigated and confirmed by a number of studies (e.g. Burgess, 2002; Hazzard, 1996; Lee, 2005; Whitehurst & Lonigan, 1998). A recent study of primary age students in Hong Kong indicates that parental support for reading is highly correlated to adoption of an active reading habit by children (Lau & Warning, 2007). Families play a pivotal role in helping young children to learn how to read and the involvement of parents in school reading programs is very important. By reading in front of their children, parents act as exemplars of good reading habits (Partnership for Family Involvement in Education, 2001), demonstrating that reading is enjoyable. Research in the United States demonstrates that children who were below average readers involved in a systematic home reading program performed better at reading than those who did not (Faires, Nichols, & Rickelman, 2000).

In developing countries, parents with little or no literacy skills are an obstacle to promoting reading to children (Elley, 1996a; Greaney, 1996). Conducting family literacy programs which help parents to improve both their parenting (e.g. provide readings about parenting and parenting education) and literacy skills (e.g. adult education), so that they can provide children with early reading may address this (Schwartz, 1999). Educating parents in literacy skills may change their attitudes towards the value of reading and enhance reading promotion to children.

## Theoretical Framework

This model draws together material from a number of different frameworks that deal directly or indirectly with reading. The models are:

1. Free Voluntary Reading (Krashen, 2004b, etc)
2. Information Transfer Cycle (Choy, 1996; Lancaster & King, 1981, etc)
3. PEST analysis
4. Five Dimensions of Customer Service (Zeithaml, Parasuraman, & Berry, 1990)

*Free Voluntary Reading*

Based on his research and the research of others, Krashen concludes that time spent on reading, *without* associated tests and exercises, has a positive effect on reading behaviour. This enhanced reading has flow-through benefits to academic performance etc. According to Krashen (2004a):

> We know enough to state the optimal conditions for a good reading program: They seem obvious but are rarely present: (1) A great deal of interesting, comprehensible reading material; (2) A time (and comfortable place) to read. (3) Minimum accountability (e.g. no required summaries or book reports). Also, to show effects, a program should also last for more than a few months.

He continues,

> We can still expect benefits when conditions are not optimal. But there are limits. If conditions are truly dismal, if reading material is dull and hard to understand, if reading is done in uncomfortable surroundings, and/or if students are forced to report on everything they read, a reading program may only succeed in discouraging reading. Because optimal conditions are not always possible, it is important to determine not only optimal but also acceptable conditions.

## Information Transfer Cycle

The information transfer cycle has a range of iterations that apply primarily to the creation of new knowledge based on the use of earlier knowledge. For the purpose of free voluntary reading, the key steps involve:

- Distribute and collect: identifying suitable published or unpublished materials and the methods for acquiring them
- Represent and organise: how libraries represent the collected publications and organise them in some coherent fashion to facilitate identification by their users
- Access: ways by which readers identify suitable materials that satisfy their interests
- Deliver: mechanisms by which readers get the materials they have identified, and the period of time that they can retain them

### PEST Analysis

PEST analysis refers to political, economic, social, and technological analysis and describes a framework of macro-environmental factors used in environmental scanning. It is frequently used as an early process in the planning exercise and for periodic review. It assists in early identification of major potential obstacles, leading to the development of strategies to address them.

### Five Dimensions of Customer Service

Elements from this customer service model are employed to highlight the need to create and maintain library services, including reading activities that attract, stimulate and sustain student interest in reading. Its elements are: reliability; responsiveness; assurance; empathy; and tangibles.

Reliability. Reliability is the ability to perform promised services dependably & accurately. If school libraries fall short of what their readers expect, they may cease to use the library. Minimum requirements for reliability are: reading materials that match user needs; and library services that are carried out at a suitable & predicable level. The success factors & obligations are: sufficient volume of materials; selection of suitable materials; and training of library staff.

*Responsiveness*. Responsiveness is the willingness to help users & provide prompt service. Service needs to be timely otherwise interest will decline. Minimum requirements are: access to chosen materials in a reasonable time; access to chosen materials for a reasonable time;

access to alternative materials if chosen materials are unavailable. Success factors & obligations are: volume of materials, so that students do not have to wait for long periods due to overwhelming demand for a limited number of items; access systems; circulation system; ability to reserve items; culture of timely return of materials; culture of sharing materials and information about materials

*Assurance*. Assurance includes the knowledge & courtesy of library staff and their ability to convey trust & confidence. Young readers need to have confidence in library staff, e.g. when recommending items for reading. Minimum requirements are: trained staff able to provide advice on suitable reading materials; printed lists or equivalents of materials matched to needs & reading levels; and participation in communities of practice to maintain and improve standards

*Empathy*. Empathy involves caring, individualised attention provided to the student. This contributes to student focused procedures rather than rule-bound approaches. As noted by La Marca (2003), the role of the librarian in the reading program is critical for its success. Apart from providing efficient services, library staff should encourage a respect-rich reading environment. Minimum requirements are: trained staff able to devote time to students at a group and individual level; and the creation of a welcoming environment

*Tangibles*. The appearance and ambiance of the library are important for attracting and retaining readers. The library should be inviting, clean & suitable for the services provided. As noted by La Marca (2003), when investigation reading programs it is important to address,

> The ambience within the library space and how this assists the teacher-librarian in creating a welcoming environment conducive to encouraging reading, including factors such as layout and display

Minimum requirements are: stand-alone space for collection and reading activities; classroom space or equivalent for reading and related activities; comfortable desks and chairs; props and decorations, sourced from outside and within the school community; and a hygienic, clean and well ventilated space.

## Results from the site visits

The site visits informed the researchers of the challenges and potential support mechanisms for the introduction of reading programs. It should be noted that these observations represent generalizations based on visits to over fifty schools: there were many variations observed. They do not cover the range of diverse practices and situations that were observed but provide some background on the state of libraries and attitudes towards reading in rural China.

### Library facilities

In most cases the book collections were stored in converted classrooms. There was little evidence of any understanding of good library design practices. Some schools had separate reading rooms. In only one school were the concepts of library and reading room combined: they were mostly perceived as two separate rooms for two different functions. A number of the libraries were located on upper floors based on a practical consideration: risk of flooding. Both libraries and reading rooms were generally devoid of any decoration. There were exceptions to

this. Some were beautifully decorated, mostly with students' artwork related to their reading. Not all schools had dedicated library facilities: some shared space in storerooms or multifunction rooms such as laboratories and music rooms. A number of primary schools placed a greater emphasis on classroom collections rather than centralized library collections. These would be rotated periodically among the classes and were usually supplemented by the students' own books.

## Collections

The collections encountered at the beginning of the visits were considered poor for the following reasons: heavily text-based with few pictures; many duplicates, reducing the breadth of the collections; overemphasis on character building and inspirational materials; curriculum based materials; unsuitable non-engaging materials. At a number of sites, suppliers had substituted materials not on the original lists because they did not stock a sufficient range of titles. As the project developed, the collections have improved as the issues listed above have mostly been addressed.

## Access to collections

There was a range of access methods to the reading materials. Physical access to the libraries by the children was generally restricted. Books would often be collected by teachers and class representatives and taken to the classroom for distribution. Where students were allowed to visit the library, it was often at scheduled times. When this occurred there was rarely the opportunity to browse the shelves to choose reading materials. They were usually preselected by librarians, teachers or class representatives. This represents a mismatch between the numbers of students and the size of the collections. There is the perception among the librarians and principals that the books need to be carefully rationed. Concerns about loss and damage to items were frequently raised with the researchers. Another element contributing to restrictions on access is library opening hours. They are rarely open before school time and often closed for lunch and the after-lunch nap. In some cases the library would be closed from 11.30am to 2.30pm. In many schools the books could not be taken home. In those schools where they could, borrowing times ranged from 2-days to 2 weeks. One school had dispersed reading points around the school during lunch and other recesses. These were operated by the students themselves, and appeared to be popular.

## Views towards reading

The consensus among principals, teachers, librarians, Local Education Authority personnel and parents is that reading skills lead to enhanced academic performance. This results in reading programs being dominated by comprehension exercises, book reports etc. This view also surfaced at the *Read to Learn Conference*, where it was argued that rural China was not at a stage to indulge in reading for pleasure: the function of reading was to improve people's abilities. This became an important issue to the researchers, because the CY-SFF focus in the reading projects is on reading for pleasure.

## Librarians

It became clear to the researchers early that the role of the school librarian ranked low on status and importance in many schools. Examples included: new graduates who took the lower-paid position as an entre to teaching; teachers nearing retirement; teachers who took on the

position while recovering from illness; and three librarians whose additional duties included laboratory supervision, cleaning and cooking. This is of course not an issue that is confined to school libraries in developing countries. It did pose concerns to the researchers because it cast doubts on the abilities of some librarians to successfully carry out the tasks expected of them and also indicated that the importance of books and reading was not ranked highly. The situation in some schools was very different. Some librarians exhibited ability, creativity and passion for their roles.

## The Reading Program Mandala

The resulting model was developed in a graphic format, adopting the concept of the mandala, shown in fugure 1. A mandala is a symbolic design that includes a centre and periphery, used for the purpose of contemplation. It is derived from Buddhism to describe the universe. Its use in this model is *not* intended to convey any religious associations. At the centre of this reading mandala is the child, the focuses of the model. The outer rings are the macro guiding influences and impacts on the reading projects. As the rings approach the centre, they become more concrete. This discussion will be limited to description of the proposed working library models, outlined in the inner circle. For details of project philosophy, initiation, administration etc., contained on the outer circles, the original report can be consulted (Henri, Warning, & Leung, 2007b).



*Figure 1. The reading mandala*
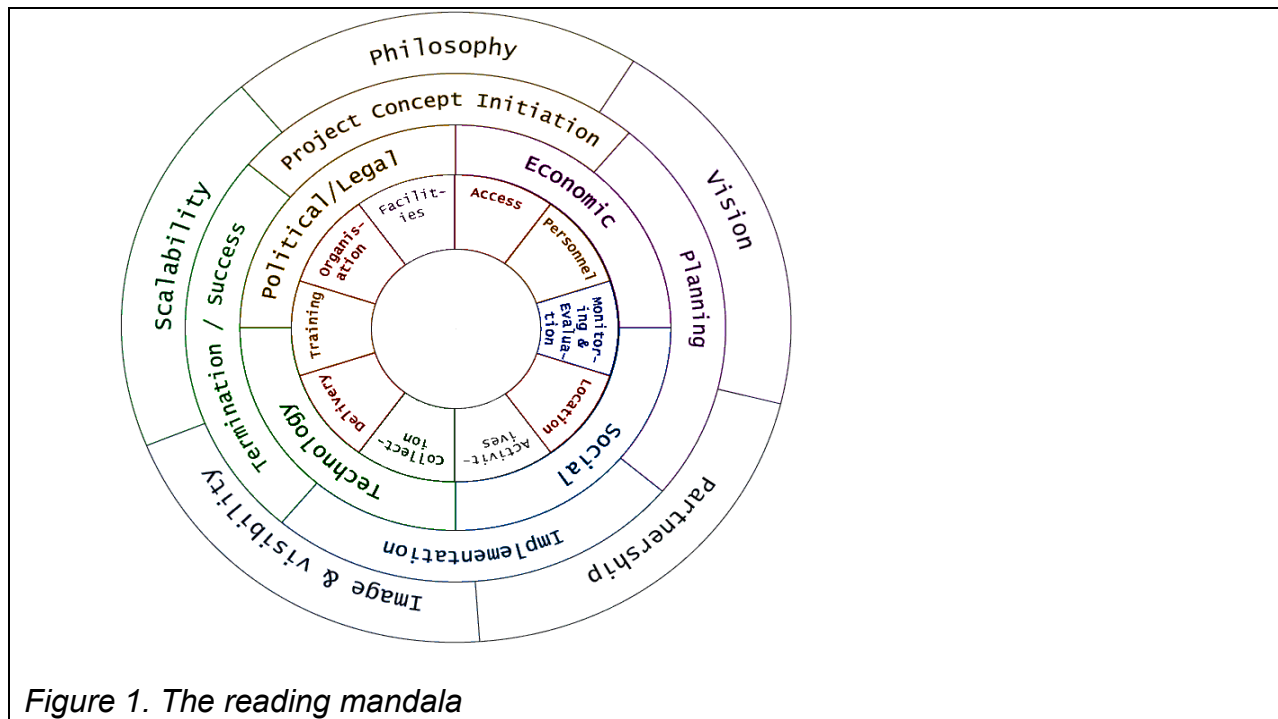
### *Library*

The library should be located in a dedicated room or rooms. It must be in a visible and central location. In primary schools it should be easily accessible, i.e. not on the high floors unless flooding is a risk. The central location conveys a strong message to students, teachers and parents that reading is a critical and important element of the school. Central location also has a practical value, increasing access to the physical collection.

Location can also involve classroom collections and other collections e.g. mobile libraries. Classroom collections should be conveniently placed and visible, reinforcing the symbolic significance of the book space. To increase the range of access the classroom collections should be regularly rotated.

The library space must be inviting. If it is the most attractive space within the school then it will attract children. The space should be comfortable. Furniture must be appropriate to give the message of free voluntary reading. It should be a place to be proud of. Some books should be displayed so that they are easy to identify. New books should be in a separate part of the space. Activities related to reading should surround the space so that it comes alive.

*Personnel*

The library should be staffed by a teacher who has some appropriate library training; or another educated person with appropriate library training. Selection of the teacher librarian is a critical success factor: an inappropriate person can retard the progress of the reading program as well as the impact of other library activities. The librarian should be enthusiastic, committed, student oriented and willing to learn continuously to enhance their library skills. Ideally the librarian should be an active networker, sharing information, and outreach. Librarians should be active in developing communities of practice as well as promoting reading outside the school community.

It is important that the librarian's position should not be perceived by the school community as inferior to that of the teaching staff. This should be reflected by the librarian's formal position in the school hierarchy plus a salary on par with teachers. There should be some career path for the librarian that does not necessarily involve migration to the teaching staff.

Student librarians should be recruited and trained to support the librarian. Student librarians can carry out routine activities that free the librarian to perform professional and value-added tasks. This should be portrayed as an important and prestigious position for students to hold. The librarian should develop a standard training package for student librarians.

*Collection*

The following elements should be incorporated into collection development:

- User needs analysis that identifies what books children want to read. Popular books will attract readers; unpopular books will waste resources
- Guidelines for selection should be documented to establish criteria for book selection
- Preferred book suppliers should be identified based on: quality; range; price; reliability; speed of supply; and follow up service
- Local language materials should be identified. For pre-readers, picture books negate reliance on native language
- Books with attractive appearance and suitable content should be selected. A large British study of children between the ages of 4 and 16 indicated that,

> In the youngest age group (4-7) most children chose a book by its illustrations or its cover. The 11-16 year olds chose by cover (36-44%), title (40-49%), blurb (42%), or name of author (41-44%)......Overwhelmingly the children said they chose books by themselves, although mothers, teachers, and school librarians were occasionally mentioned. (Reynolds, 1996)

This approach should not ignore referral by adults: a recent survey of Primary 4 students in Hong Kong indicated that guidance from teachers and others in the selection of reading materials would encourage their reading (Lau & Warning, 2007).

- Create attractive displays to stimulate demand for books
- Funds for book purchase should be linked to the number of children in the project on a per capita basis

### Organisation

The collection should be physically organised in a way that facilitates access and delivery. Organisation should be arranged according to established library principles that match the way students seek books, e.g. by: user group; subject; and/or language. The physical arrangement should enhance the appearance of the library without compromising its functionality, e.g. in new book displays, author displays or thematic displays. Classroom collections should have a systematic arrangement that mirrors the organisation in the library.

### Access

Children must be able to identify reading materials that match their needs and/or interests, and be able to locate them. Access precedes delivery. There should be a variety of ways of access including:

- Identifying items by online catalog (OPAC) searching
- Scanning lists of good titles provided by librarians and/or teachers
- Recommendation by other students, librarians and/or teachers, parents etc.
- Scanning book displays: a dedicated space should be made available and books displayed in an eye catching way
- Browsing: similar materials should be physically located near each other

Each of these methods has advantages. Children should evolve from being passive (i.e. relying on recommended books) to active (i.e. sourcing their own materials). Children will require instruction to carrying out these actions effectively.

Identification that attractive books are available is necessary but not sufficient: readers need to physically locate items in an efficient way with minimal searching time and high probability of success. This requires efficient organization, including physical organization.

### Delivery

Delivery involves retrieving identified books and retaining them for suitable periods. Students' opportunities to obtain the materials they want should be made as easy as possible. This includes:

- Certainty of delivery (e.g. by reservation)
- Minimal waiting time for books already on loan
- Ease of collection, e.g. by visit to the library, delivery to classroom etc.
- Appropriate lending time, i.e. long enough to complete a book. This should include the ability to renew a book if no one else has reserved it

*Activities*

The librarian should introduce enjoyable activities that involve restating, reforming or conveying stories. These strengthen children's attachment to reading and also attract members of the audience who are readers. This elevates reading into the domain of sharing rather than being a solitary activity. Possible activities can include:

- Dedicated time for reading at school (Krashen, 2004b)
- Creation of posters (Hopkins, 1998)
- Effective display of materials (East Dunbartonshire Council, 2002)
- Role playing
- Drama
- Reading aloud
- Literature circles (Cornish, 2003)
- Puppetry
- Reading competitions
- Writing
- Reading Buddies (National Association of Elementary School Principals, 1998)

## Implementation of model libraries

A range of the recommended features have been introduced in the projects. Differing local conditions have resulted in two main models being applied. It is expected that as these model libraries are refined, they will act as exemplars for other schools to emulate.

*Centralised library model*

This represents a traditional library model and has been applied to most of the schools. Collection and reading room(s) are combined. Students can attend the library as individuals before, during and after school. Classes attend the library at scheduled times. Class representatives and teachers take books to the classrooms at scheduled times. While this is a simple model there has been some resistance to the free access of students to the collections. There are a number of different iterations of this model in different schools. Two schools are trialing the "book pop" concept; one school retains a central library but is transferring its major collections to classroom collections which will rotate among the classes; a primary and secondary school located adjacent to each other will share a library.

*Mobile library model*

This model has been applied to projects in Yunnan province, where many of the schools are extremely remote. There are twelve separate collections which rotate every three months. The advantage of this model is that the collections are broadened while the number of books needed to be purchased is reduced. One of the schools in Yunnan in a larger town will extend library access to children in the community after school hours. On a smaller scale, the mobile concept has been applied to a kindergarten which has no central library but has classroom collections that rotate among the classes. This kindergarten will also provide access to mothers of pre-kindergarten age to visit the school and borrow materials to read to their children.

*Librarian training*

A three-stage training package has been developed to bring librarians to a level where they can support and sustain the model libraries. All are designed as all-day (six-hours) training modules. The training facilities are organised by the local education authority or related organisation. The training is undertaken in Mandarin by an experienced teacher librarian with previous library training experience in China. Apart from the target librarians, principals and senior teaches are encouraged to attend. Attendance and the attendees' enthusiasm have been encouraging. The training is evaluated by the participants anonymously. To date, training has been delivered in three provinces.

*Stage 1*. There are two major themes in stage one. The roles of the librarian are outlined, stressing that a key role of the position is encouraging use of the collection rather than stewardship of the books. Additionally, general survival skills for librarians are demonstrated, including: collection organisation; guidance for providing access; library decoration; simple reading activities; and rudimentary book repair. This is a very interactive module, where the librarians raise issues of concern then try to develop their own solutions in groups.

*Stage 2*. The focus of stage two is initiating a range of reading activities into the school.

*Stage 3*. There are two themes in stage three. The major theme is to educate librarians into ways of initiating a whole-school approach to reading, with an emphasis on encouraging teachers to integrate reading activities into the curriculum. Additional reading and related activities are explored, building on the material covered in stage 2.

## Conclusion

As Lewin (1973) noted decades ago, initiating change will always include forces that propel, and forces that inhibit the change. A lack of monetary and other physical resources is a major impediment: that is the reason that donor foundations become involved. It is not always our major obstacle. Our experience indicates that two major issues that have the power to propel the implementation of model libraries are leadership and the ability to overcome entrenched ideas and practices. We have witnessed energetic and open-minded leadership at all levels: from local education authority officials that are driving the adoption of a reading culture in their districts; and principals who are driving it in their schools whilst encouraging other principals to imitate them; to a new librarian who initiated dramatic changes in her school. The leaders need to be identified and supported.

It is difficult to overcome resistance to change. This is one of the reasons we have introduced the model (exemplary) library concept. The training sessions are an important vehicle for this, as librarians who may feel isolated and powerless to confront new challenges witness that there are others also confronting these challenges and that solutions can be created individually and cooperatively.

As we have moved well into the second year of the project we have had both successful and disappointing results. We have witnessed significant progress in a number of areas and there is evidence that the concepts underpinning the model libraries, and the principles and practices explored in the training, are being increasingly understood and adopted.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the authors and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# A grounded analysis of year 8 students' reflections on information literacy skills and techniques and an identification of students' information literacy attributes.

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*This research, undertaken in a UK high school, focuses on the views of year 8 students who were asked to reflect on their use of information literacy skills when completing an English assignment. A grounded analysis approach was taken in analysing the diaries which students completed during their assignment. Findings reveal a number of categories which illustrate the students' views of and use of information literacy skills.*

Information literacy; grounded analysis; student diary

## Introduction

This study took place in a UK state comprehensive school and focused on a class of year 8 (2nd year of high school) students who were completing a discursive essay on a topical issue as part of their English syllabus. Students completed a structured diary during their research for and completion of their written assignment. A semi-structured interview with the class teacher was done after the students completed their assignment. This study is part of a larger study which will seek to follow these students into year 9 and conduct interviews with students about aspects of information literacy.

## Research questions

The aims of the study were to analyse and interpret the diary reflections of year 8 students and to identify the information literacy attributes of this class of students. The following research questions were posed:

➢ How would students reflect on brainstorming, mind mapping and question formulation?

> ➤ Would students be able to link aspects of the information literacy process they were undertaking?

> ➤ What factors would influence students' confidence during the assignment process?

> ➤ How aware would students be of their information environment?

> ➤ What information literacy attributes would this group of students demonstrate?

## Literature Review

There is now a vast range of literature on information literacy in the school, higher education and workplace sector but there is no agreement as to one definition of information literacy or whether information literacy should be viewed as a concept, an ideal to be reached, a practice, a set of skills, set of competencies or a set of attributes or a combination of elements of these. In the schools sector, research by Kuhlthau (2004), Todd (2006), Gordon (2000), Herring (2004 and 2006), Herring and Hurst (2006), Wolfe (2007) and Farmer (2005) has identified a number of areas of interest to teachers and teacher librarians and these include: the affective aspects of information literacy; the use of guided inquiry; the use and evaluation of information literacy models; social-emotional behaviour; concept mapping; and transfer. There are a number of areas of information literacy which teachers and teacher librarians may view as problematic and these include whether students transfer information literacy skills within their school experiences and whether there is any evidence that students transfer information literacy skills from school to higher education or the workplace. The connection between information literacy in schools and lifelong learning may also be questioned as not all students will progress to information related jobs once they leave school. Thus a review of the literature of information literacy in schools can lead teachers and teacher librarians not only to learn more about information literacy concepts, competencies and practices but also to question the validity of some of what is proposed in the literature.

## Methodology

The author takes an interpretivist and constructivist approach to this research. The methods used to collect data were the completion of a structured diary by students and a semi-structured interview with the class teacher. The use of student diaries or journals have been used in previous information literacy research by authors such as Tallman (1998), Harada (2002) and Barranoik (2001). The student diaries are viewed as constructions by the students of their own reality and not verbatim accounts of what they did or thought. Semi-structured interviews are viewed as sources of rich data by Burns (2000) and others. The data was analysed using constructivist grounded analysis. Grounded analysis emanates from work on grounded theory which was developed initially by Glaser and Strauss (1967), then by Strauss and Corbin (1998) and constructivist grounded theory was developed by Charmaz (2006) and others. Grounded analysis seeks to answer the question "What is happening?" from the data analysed. As this is an initial phase of a larger study, there is no attempt to develop a grounded theory from the evidence. Constructivist grounded analysis (Charmaz 2006) views the researcher not as an objective, independent viewer of the observed world but, as in this study, as an interpreter of the views of the studied participants. Thus the analysis of the student diaries and the teacher interview allows the researcher to interpret the data with an emphasis on what emerges from the data, as opposed to interpreting the data from the basis of a preconceived standpoint.

## Findings

The findings, based on the analysis of the student diaries and the teacher interview, were organized into 5 categories:

➢ Making links

➢ Being confident

➢ Using information literacy skills and techniques

➢ Students' awareness of their information environment

➢ Being reflective

These categories were then used to identify the information literacy attributes of this group of students.

The categories were formed from a bringing together of a number of codes which were attached during analysis of the students' diaries. There is overlap between the categories which are not meant to be seen as completely separate and this will be demonstrated graphically in the full paper.

The 'making links' category focuses on students' ability to identify links or connections between different aspects of the information literacy and assignment processes. The 'being confident' category examines students' reflections on how they felt at certain stages of the assignment process and the extent to which their use of information sources and the ideas and information within these sources, made them more or less confident. The 'using information literacy skills and techniques' category analyses how students made use of these skills and techniques to identify relevant information, to evaluate information and ideas within sources and how they reflected on their use of these skills, techniques and sources. The 'students' awareness of their information environment' category examines the extent to which students were aware of the extent and variety of their information environment including their use of print and digital resources, their use of others as information sources and their use of self-created information resources. The 'being reflective' category examines the extent to which students can reflect on their own use of information literacy skills and techniques as well as their own evaluation of their performance in writing the essay.

## Conclusion

There is still a vital need for research into aspects of information literacy amongst school students and this author recommends that this research could usefully seek the views of students at different levels within the school. Interviewing students at different levels and then interviewing the same students later in their school career, would to the knowledge of teachers and teacher librarians who are faced with the enormous task of developing information literate students.

**Note**: A fuller version of this paper will be sent to *School Libraries Worldwide* for consideration as a refereed publication. The author's university no longer recognises conference proceedings as refereed publications.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# The Status of Technology, Science and Mathematics in U.S. Middle School Media Centers: A National Survey

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*In a national survey of U.S middle school library media specialists (SLMS) in 2005, respondents were asked about their roles in schools related to science, mathematics, and technology. Most indicated that they rarely collaborated with science or mathematics teachers and that their knowledge and professional development in these areas was limited. However, those SLMS who took an active role in the technology integration activities at their schools were more successful in the four roles defined in "Information Power": teaching, instructional partner, information specialist, and somewhat less, program administrator.*


*science and mathematics, middle schools, school technology support*

## Introduction

With a renewed emphasis on the importance of science and mathematics teaching as a national goal to increase general public science literacy as well as stimulate the future economy by developing scientists for the workforce, schools will be pressed to examine how they are meeting this challenge (Business Higher Education Forum, 2005; National Mathematics Advisory Panel, 2008; National Science Board, 2007). As part of this re-examination, school library media centers (SLMC) will be evaluated with a new focus on improving the role played by this key resource in achieving school goals for science and mathematics literacy.

There are many issues that have already been noted (Montiel-Overall, 2007; O'Neal, 2004). Previous studies have suggested that science collections in SLMC are dated (Mardis & Hoffman, 2007). Many school library media specialists (SLMS) have limited science and mathematics backgrounds and have few opportunities for professional development in these curricular areas. Science and mathematics teachers generally do not regard SLMS as a major source for information on digital resources for teaching (Hoffman, Lee, Mardis, & Falk, 2005). Despite this disconnect, studies have reported links between SLMC and general

student literacy (Lance, 2001) as well as science achievement, particularly in relation to visual, video resources (Gates, 2004; Mardis, 2006). Researchers examining the links between SLMC and science/mathematics teaching have urged SLMS to increase their use of digital libraries as a major part of school library resources and for SLMS to expand their collaborations with mathematics and science teachers (Mardis & Hoffman, 2006).

With this concern in mind, the researchers developed a series of studies under a National Science Foundation grant to examine the relationship between SLMS and science and mathematics teachers. The study was designed to examine the potential for the use of digital resources to support mathematics and science in middle schools. The following paper reports on the results of a survey of school librarian media specialists in the U.S.

## Methodology

In spring 2005, surveys were mailed to teachers and media specialists at 150 public middle schools in the United States. Using a cluster sampling strategy, three schools were randomly selected within each state from the list of schools maintained by the U.S Department of Education National Center for Education Statistics (NCES). Following approval from the researcher's institutional review board, surveys were sent to the school media specialist (if there was one), along with a randomly selected seventh grade science teacher and mathematics teacher from each school. Personnel names were available for 70 of the 150 schools, and for these, surveys were addressed to specific individuals. For the remaining schools, a generic envelope to the schools' media specialist and seventh-grade science and mathematics teachers was sent. For the named teachers and media specialists, two follow-up postcards were mailed requesting return of the surveys to increase response rates. Each educator received a one-page, double-sided questionnaire, with a different instrument for the teachers and for the media specialists. The survey was intentionally short to encourage a higher return rate as part of a larger study done under a National Science Foundation (NSF) grant project.

Each SLMS completed a short survey instrument with 30 short-answer and Likert-scale questions. Thirteen of the questions covered demographics and background. Quantitative data from the surveys was entered into SPSS for statistical analysis, while open-ended responses were transcribed and coded for themes following standard qualitative procedures.

In the following report, where statistical significance is noted, it is at the $p < .05$ level.

## Results

The respondents were 48 middle school SLMSs (32%), above the typical 25% common return rate on mailed surveys. The respondents represent 30 different states. Of the respondents, 29 were from the 70 schools for which personnel names were available.

### Demographics

Of the respondents, 17 identified themselves as Librarian/School Librarian/Teacher Librarian (35.4%), 28 as School Library Media Specialist/Library Media Specialist (58.3%), and 3 as other (Library Aide, Library Media Tech, Media Generalist).

Seven (14.6%) are male, and 41 (85.4%) female. Forty-six (95.8%) indicated they were Caucasian, one Native American and one did not indicate ethnicity. The teachers ages are shown in Figure 1, with two-thirds (66%) in the 50 and over category, and just over 11% under forty, reflecting other studies showing the aging of the profession.
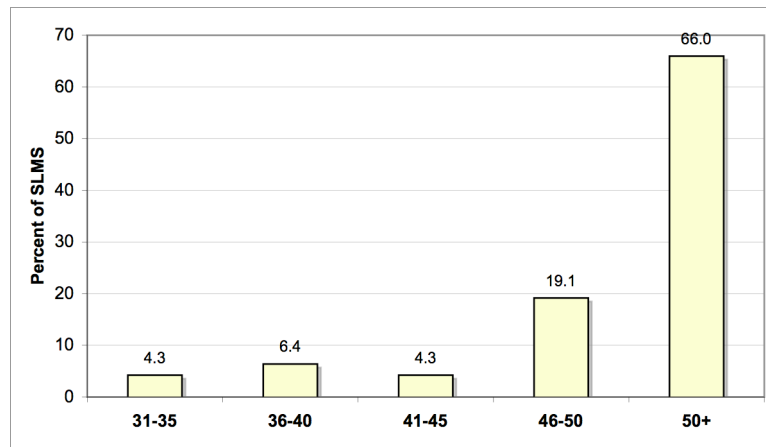


Figure 1. Age of responding SLMS

As suggested by the age ranges, these are generally highly experienced SLMS. They have been educators from three to 33 years, with a mean of 20 years. Figure 2 shows the number of years as SLMS, with 37% having more than 15 years in the field. 77.1% hold Master's degrees, and 43.8% indicated they are certified as teachers in their state. Two who identified their positions as aide or tech held only associate degrees.
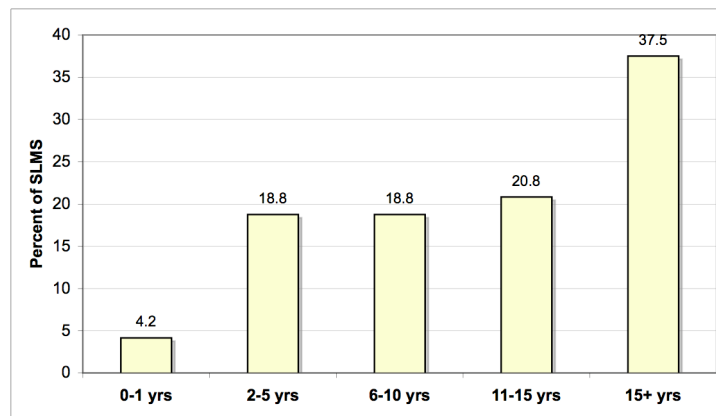


Figure 2. Number of years as SLMS

While all work with middle grade students, five (10.4%) have jobs that include more than a single school building. 81.3% cover all middle grades six through eight. Two teachers work at K-12 schools, two at K-8, and five include high school. While there is demographic variation among the respondents, there were no significant statistical effects based on age, years in the profession, or education levels with the variables in the study.

*Technology Environment*

With many studies including the larger one of which this is a part suggesting that technology access is a limiting factor in use of digital resources in schools, SLMSs were

asked about their perceptions of the technology environment in their schools. Most SLMS think their school districts are doing better than others districts is their areas in technology deployment, with almost three-quarters (73.3%) agreeing with this statement. Almost as many agreed that their schools have been successful in getting teachers to use computers in their classrooms (Figure 3). A larger number indicated they think that their teachers are doing better in technology integration than other districts (81.9%).
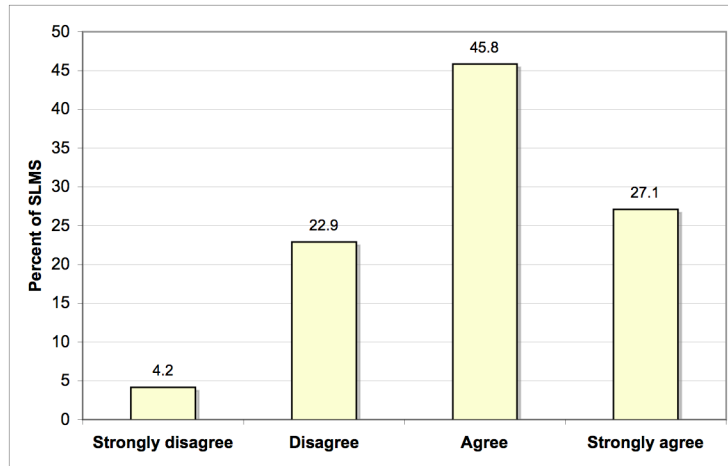


Figure 3. SLMS who indicated their schools have been successful
in getting teachers to use computers in their classrooms

The SLMSs had mixed reactions as to whether technology access was a major barrier to technology integration in the classrooms at their schools (Figure 4), with 61.9% indicating they did not think this was the case. More than half (57.4%) agreed that state testing priorities had decreased emphasis on technology implementation locally.
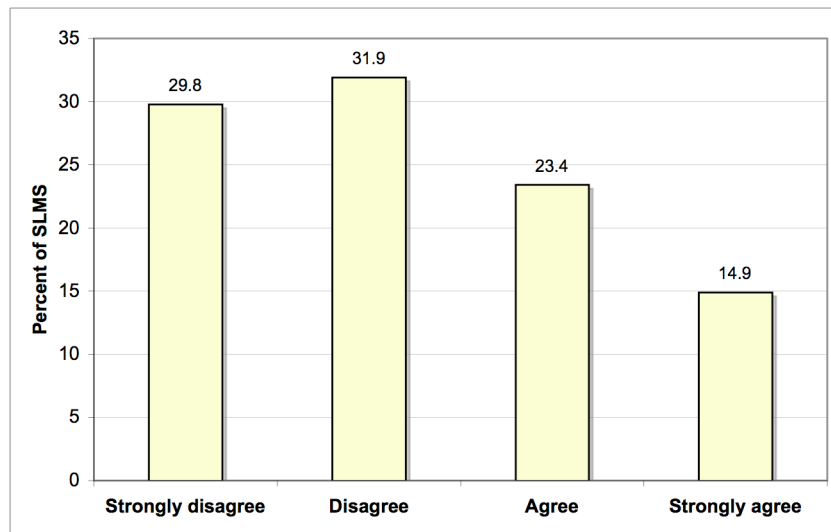


Figure 4. SLMS who agreed that technology access in their schools
was a major barrier to classroom integration

*SLMS Roles*

While SLMS are commonly recognized for their roles in managing the school library media center, their professional competencies are equally important for the support roles that they offer to teachers and students. Four roles are identified for SLMS in *Information Power: Building Partnerships for Learning* (American Association of School Librarians & Association for Educational Communications and Technology, 1998) In the teaching and instructional partnering roles, the SLMS supports the instructional goals of the school in both content (standards and curriculum) and process (synthesis and exegesis). The information access and delivery role includes the traditional responsibilities of SLMS, like developing the media center's collections and services. The program administrator role includes management of the library media program as well as broadly focused training and advocacy functions within the school and district.

For those SLMSs who work with middle grade students, the role most often identified as the strongest was information specialist (Figure 5). Over 80% indicated this was important in their work. By contrast, instructional partner was important to just over half (52%), suggesting that in general, collaboration with teachers is not as easily integrated into their current professional activities.
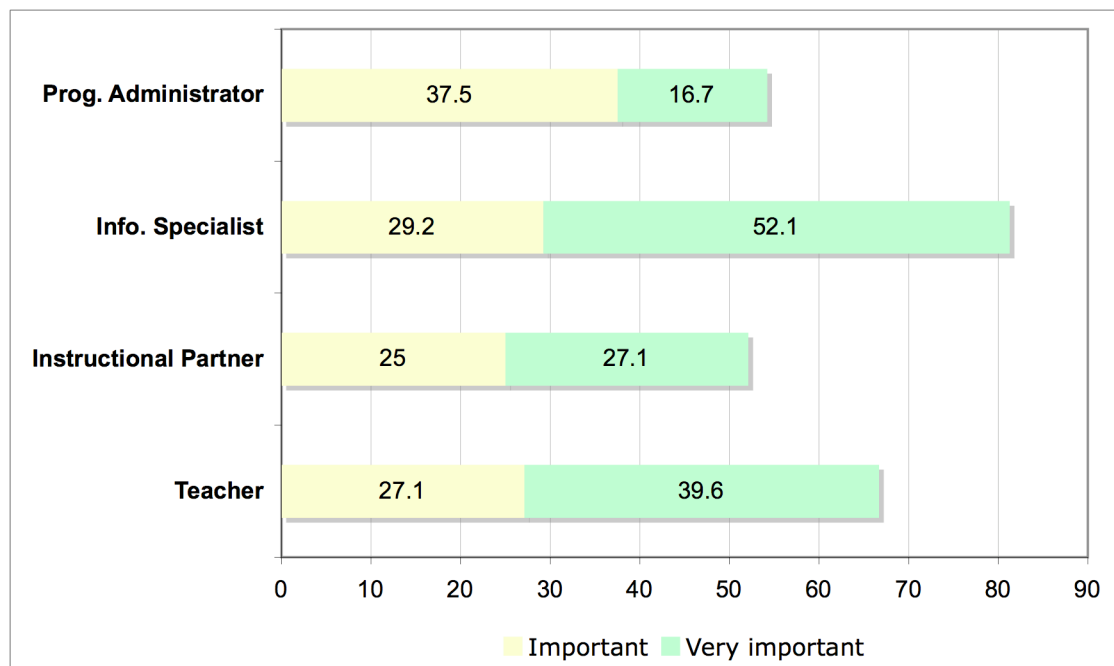


Figure 5. Percent of SLMS indicating role was important

*The Science-Mathematics Connections*

The smaller role of instructional partner is particularly clear when looking at collaborations with mathematics and science teachers. While a single respondent worked regularly with a science teacher, the majority of SLMSs in the study collaborate less than once per month with either mathematics or science teachers, and 40% never collaborate with mathematics teachers.
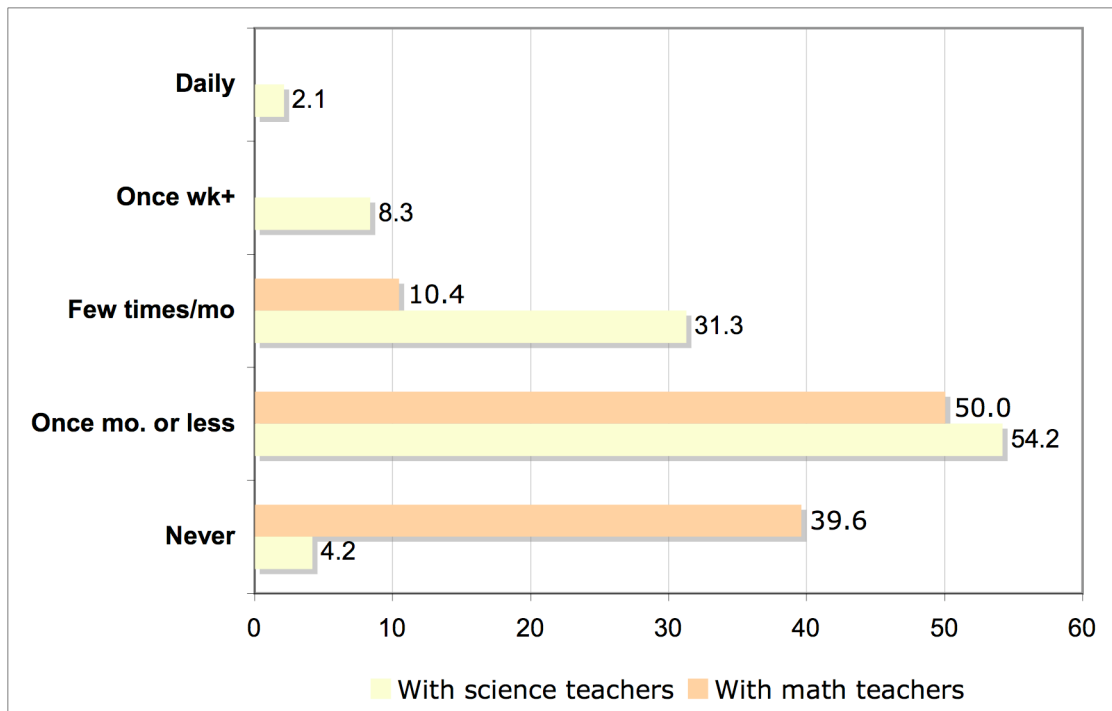
Figure 6. Frequency of SLMS collaborations with mathematics and science teachers

When it comes to the use of digital resources for instruction, SLMSs see clear distinctions in terms of the importance these play in the two disciplines (Figure 7). While 68.1% do not see digital resources as important in mathematics, almost the same number (64.6%) agree they are important for science.
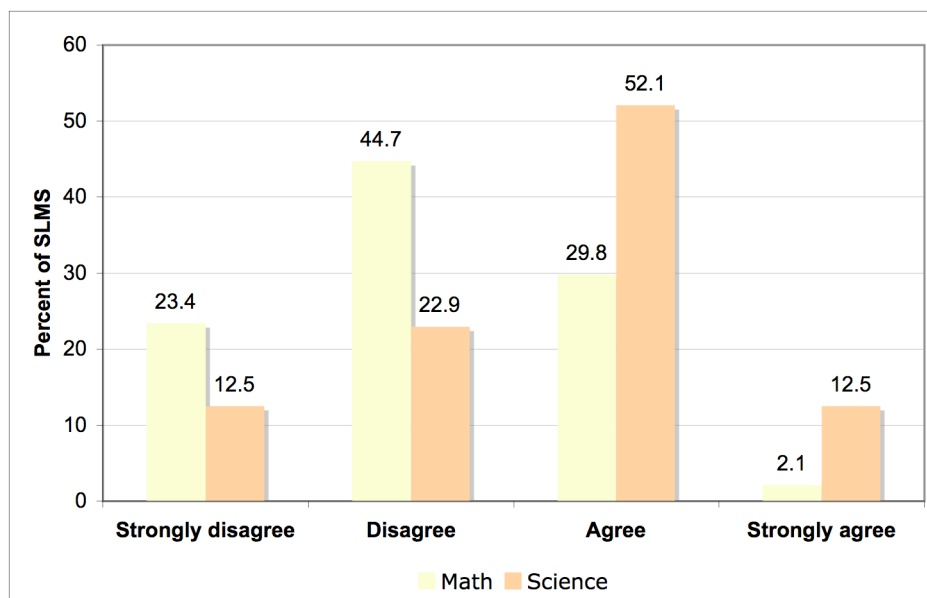


Figure 7. Percent of SLMS indicating agreement that digital resources are important in supporting mathematics and science instruction in their schools

Subscription streaming video services are found at just under a third of the schools (31.2%). However, the SLMSs in the study do note that visual resources such as videos, DVDs, and streaming video are important in STEM teaching in their schools (Figure 8). In

open-ended responses, those who mentioned having streaming video said they typically had a role in supporting this, that teachers liked the services, but often they had little to do with initial decisions to adopt this technology. Some indicated their schools had an interest in streaming video but technical problems were preventing them from moving forward, including one SLMS who noted they had subscribed a year ago but the district had yet to deploy it due to limited bandwidth.
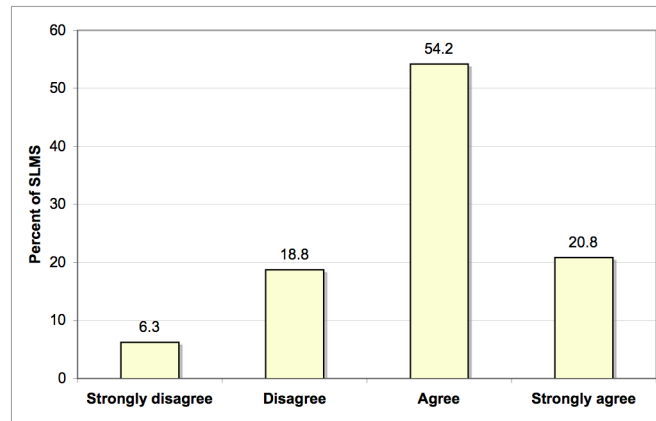


Figure 8. SLMS indicating visual resources such as videos, DVDs, and streaming video play an important role in STEM teaching in their schools

## The Relation Between Technology Integration and Collaboration

The most notable finding is that in those schools where the SLMS both perceived that technology was important and where she was active in integration efforts, her role as instructional partner was rated highly. This relationship is significantly correlated (r (46)=.53, p < .001). These schools are active in making technology a part of teaching and the SLMS is a key player in this goal.

This relationship is reflected in open-ended responses as those who indicated that they played a strong role in technology support for teachers in their schools also were more likely to rate *all* four SLMS roles higher except that of program administrator. For example, one teacher who rated all four role areas as highly important (5 rating on each) indicated that she was "highly involved and always looking for ways to collaborate and integrate technology." Of the 13 SLMS who rated the instructional support role highest (5 on a one to five scale), 11 noted their active role in technology support, one indicated she was an active user and one did not respond to the question.

By contrast, of the eight who rated the instructional support role as ranked first or second, six of these responded to the open-ended question. All six indicated they at best used technology themselves but did not play a role in technology support. One of these ranked all her roles as limited, indicating her position was "minor. Librarians are mostly ignored." A similar response came from a respondent who had only time for the teaching role, who suggested "Our school is still in the 1900's when it comes to instruction methodology—and our administration likes it that way."

*Curriculum and Professional Development*

Issues relating to the relationship of the SLMS to science and mathematics teachers also showed that technology and instructional support roles related. Where the school is perceived to have been more successful in technology integration into STEM generally by the SLMS, she indicated a higher importance seen for the instructional role in her job (correlation r(46)=.34 p<.001). While there was no significant relationship to self-reports of time collaborating with mathematics teachers, those teachers who rated the instructional support role as most important in their jobs spend more time collaborating with science teachers with correlation r(46)=.39, p<.001. The more time spent collaborating with science teachers also correlates with higher ratings on the information specialist (r(46)=.34, p<.001) role.

For the SLMS in the survey group, professional development is common with 95.7% indicating they have had formal PD within the past year. But on open-ended responses asking about topic areas, three major areas emerged: technology, library management, and reading, the latter being the only content area mentioned in all the responses. None had been to any kind of PD for mathematics or science. The prevalence of PD in technology is a further indication of the critical role SLMS are playing in this generally within their schools.

## Conclusions

Despite what are still limited collaborations between SLMS and science or mathematics teachers, the concerns that SLMC are not relevant to a digital age are clearly not the case. If SLMS are in schools where technology is moving forward and they are active in this transition, their roles are important and critical. Those who indicate a full range of importance in *all* four roles described in *Information Power* are those who are leveraging their technology expertise in their work with students and teachers.

While this study did not specifically cover the barriers that are keeping some SLMS from moving more actively into a digitally-centered professional role, the results, even though the sample is small, do suggest that not only is this recommended direction occurring. Expansion of the focus on technology is a way for those who feel less critical to their schools to find a direction that will improve their perception among other school personnel.

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## Biographical Notes

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Information search behavior and utilization of digital library of innovative consumers

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*This study was undertaken to examine digital library usage and to identify innovative users of digital libraries using data collected in four universities in Taiwan. The Domain Specific Innovativeness (DSI) scales were used in the study to segment respondents into various cluster of innovativeness in digital library usage. On average, college students spent 3.5 hours on digital libraries per week. The findings in this study indicated that 8.31% of digital library users could be classified as innovative users. They were frequent users and were familiar with services provided by digital libraries. Innovative users searched and downloaded more materials from digital libraries than respondents in other clusters. In general, journal/magazine articles were the most frequently used services for digital library users, while e-books were used much less often.*

*Digital library, Innovative consumers, Information search*

## Introduction

Digital libraries are a way for traditional libraries to utilize technology in digitalizing collections as well as providing services. As technologies emerged, digital libraries are referred to as "knowledge commons" (Ioannidis, 2005). The explanation of digital library indicated on website of National Science Foundation (NSF) is:

> Digital Libraries basically store materials in electronic format and manipulate large collections of those materials effectively. Research into digital libraries is research into network information systems, concentrating on how to develop the necessary infrastructure to effectively mass-manipulate the information on the Net.

Research on digital library systems started in Europe in the mid-1990s (Castelli, 2006). Digital library is the future of traditional libraries. As mentioned in Leiner (1998), digital libraries need to provide access to users in a manner fulfilling their needs, and further to provide services effectively under resource constraints.

Institute of Museum and Library Services (IMLS) described that digital technology facilitates digital services available in museums, libraries, and archives and that organized

and categorized materials makes accessibility to the public in a new way. Kani-Zabihi, Ghinea, and Chen (2006) mentioned that digital libraries enable users to access from anywhere at anytime through the internet.

The internet has changed the way how users search information. In Taiwan, more than 15 million people have access to the internet in early 2008 (Table 1). The demand for services provided by digital libraries is increased, and users may have diversified needs for information collected in digital libraries. Realizing how users perceive digital libraries and the services they need could be beneficial for digital libraries to improve the service quality as well as the service management.

Table 1 Internet Users in Taiwan (2004 to January 2008)

| Year | Internet Users (million people) | Growth Rate (percent) |
|---|---|---|
| 2004 | 12.64 | |
| 2005 | 13.80 | 9.2 |
| 2006 | 14.76 | 7.0 |
| 2007 | 15.23 | 3.2 |
| End of January 2008 | 15.55 | 2.1 |

Source: Taiwan Network Information Center, Internet Broadband Usage in Taiwan

The Taiwan National Central Library had established its information system in 1982. In recent years, usage of the information system in the Taiwan National Library has increased from 2.0 persons to 5.2 persons on average per second (Table 2). The accessibility of digital libraries has increased. More users get acquainted with the services provided by digital libraries, which in turn drives digital libraries to enhance services for a broad range of users.

Table 2 Usage of Information System in Taiwan National Central Library (2005-2007)

| Year | 2005 | 2006 | 2007 |
|---|---|---|---|
| Average Persons (per second) | 2.0 | 3.9 | 5.2 |

Source: Taiwan National Central Library

According to the Association of Research Libraries (ARL) statistics, there is an increasing trend in expenditures on digital libraries of the university library members in ARL in recent years (Table 3). Certain categories like electronic serials cost more than other services. Since 2003, the digital expenditures had been highlighted in the ARL annual statistics to indicate the profound trend of information digitalization of university libraries.

Table 3 Digital Expenditures of University Members in the ARL (million USD)

| Year | 2003-2004 | 2004-2005 | 2005-2006 |
|---|---|---|---|
| Expenditures on Computer Files | 32.10 | 38.74 | 48.79 |
| Expenditures on Electronic Serials | 269.60 | 328.17 | 383.13 |
| Expenditures on Computer Hardware and Software | 65.80 | 91.79 | 68.66 |
| Expenditures on Document Delivery/Interlibrary Loan | 13.03 | 12.95 | 13.41 |

Source: Association of Research Libraries, ARL statistics

Digital libraries are convenient for users to search information. It is imperative to recognize that digital library usage is not restricted to knowledgeable users, but accessible to users with different information technology backgrounds (Kani-Zabihi, Ghinea, & Chen, 2006). Hence, services provided by digital libraries need to fulfill the needs of a variety of users. Borgman (2000) emphasized that the contemporary way was to develop technology for human needs instead of shaping human beings to become accustomed to the technology.

Easiness in the accessibility of the digital libraries affects information search behavior. Even with a large amount of users trafficking digital libraries, the question would be 'who are the users more likely to try new services provided by digital libraries?' Would there be innovative users of digital libraries? If there were innovative users of digital libraries, would there be any difference in the usage of digital libraries for innovative consumers from those who were likely to be late adopters of digital libraries?

Innovative consumers are unique in product and service marketing due to the roles innovative consumers play in influencing product and service diffusion. Rogers and Shoemaker (1971) stated that innovativeness was of individuals who were relatively early in adopting an innovation than other members in the system. Individuals went through several stages during the adoption process and then decided whether or not to adopt (Rogers, 1995). Since innovative consumers tend to be very early adopters, relatively young, and are likely to be opinion leaders seeking novel information (Chau and Hui, 1998), innovative users of digital libraries are imperative for service improvement and information dissemination of digital libraries, especially at the stage of launching new services.

Digital libraries are revolutionary versions of traditional libraries. With technological innovation, digital materials are stored and can be accessed through interfaces efficiently. However, for users who are not familiar with the usage of digital libraries, the usability can be largely reduced. Saaksjarvi (2003) mentioned that the interest towards innovation adoption would be influenced by users' past experiences and values as well as personal opinions in technological innovation.

In the relevant literature of digital libraries, information system designs were paid more attention to. Very limited research had studied in the area of usability and familiarity of the digital library services from the viewpoints of users. Since libraries are service providers, perceptions of users are of great importance in service management. Realizing who the users of digital libraries are and what kind of services they prefer using could be essential for digital libraries to improve the service quality. Whether innovative users of digital libraries exist and what the differences in characteristics of innovative users from late adopters of digital libraries would be practically imperative in service marketing of digital libraries. Bowden and Corkindale (2005) indicated that quantitative methods could provide certain details for researchers to know how innovators process information as well as making decisions. While the research on consumer traits has been useful for researchers to understand the characteristics of innovator, and also the domain specific research advances marketers to more effectively target consumer innovators. Hence, the objectives of this study are to identify characteristics of innovative consumers in the usage of digital libraries and further to examine whether the innovative consumers of digital libraries are more familiar with services provided in digital materials. The contributions of this study are to fill in the gap of research in digital libraries from users' perceptions and to provide managerial implications based on the findings of the study.

Digital libraries reside in an environment of constant change, from the information technology improvement and the diversified needs of users. The future of digital libraries is to meet expectations of users with quality assurance (Baker, 2006). Innovative users of digital libraries are more likely to be those who are attracted by innovativeness of services provided by digital libraries in information search. For managers of libraries, understanding the uniqueness of innovative users provides baselines in developing efficient communications. Identifying innovative users is critical for successful development of new services for digital libraries. The findings in this study are beneficial for further research theoretically as well as for managers of libraries empirically in the usage of digital libraries.

## Methodology

### Survey

A questionnaire was designed to collect user data in four universities in Taiwan. A trail survey was conducted prior to the formal survey. The questionnaire was modified based on suggestions provided by professionals and respondents participated in the trail survey. The formal survey was administered in December 2007 on campuses in four universities in Taiwan. Trained surveyors stood in front of student unions, cafeterias, or dormitories. Every on in ten to 15 students was approached, and the purpose of the survey was explained to the potential respondents. Rejection rate was approximately 10 percent, mainly due to time constraints of respondents.

Respondents needed to be full-time undergraduate or graduate students at the universities by the time the survey was administered, and had used the digital library at school at least once in the Fall semester to be eligible to participate in the survey. Trained surveyors provided necessary assistance to respondents in explaining the questions. A gift worth of approximately one US dollar was provided for respondents who were willing to participate in the survey. If for any reason respondents decided not to finish up the survey, the gifts were not retrieved and the questionnaires were discarded. The total surveyed respondents were 480, with 120 surveyed in each university. Male and female students accounted for roughly half of the surveyed respondents. Valid samples were 423, with 57 samples considered invalid due to incomplete or inconsistent answers.

### Methods

Descriptive analysis, factor analysis, and cluster analysis were utilized in this study to examine characteristics of innovative users of digital libraries. Factor analysis is a multivariate approach used to reduce the dimensionalities of the variables and to analyze interrelationships among a large number of variables. In providing empirical estimates of the structure of the variables, factor analysis has been used to create summated scales on an objective basis (Hair *et al.*, 2006).

Cluster analysis was utilized in this study to segment respondents into groups with similar characteristics. The purpose of cluster analysis is to classify individuals into classes or groups, so the individuals in the same class or group are similar to one another and the individuals in different classes or groups are dissimilar (Johnson, 1998). The *K*-means method of clustering is more suitable for large datasets and was applied in this study.

## Results

*Demographics of respondents*

The valid sample consisted of 50.59% male students. The average age of respondents was 21.56. The respondents included students from freshmen to master's students with 63.83% undergraduate students and 36.17% graduate students, and from various majors in the colleges of art, science, engineering, agriculture, business, design, and education. The average monthly expenses of surveyed respondents were USD 262.64.

*Usage of digital libraries*

On average, respondents spent 1,802.02 minutes per week surfing online, including 212.85 minutes per week searching information in digital libraries (11.81% of total online surfing time). The average monthly usage of digital libraries was 7.46 times, higher than the average monthly usage (5.52 times) of brick-and-mortar libraries. In general, college students used digital libraries more often, and the time they spent on digital libraries was approximated 3.5 hours per week.

In order to know whether respondents were familiar with services provided by the digital libraries, self-evaluation of familiarity of digital libraries were measured. Ten points indicated the most familiar with specified service provided by the digital libraries, and one point indicated the lease familiar with. In the usage of digital libraries, journal/magazine articles were searched and downloaded more often than other collected digital materials (Table 4). E-books were searched and downloaded fewer times in digital libraries in universities. For theses, more items were searched than downloaded. Respondents seemed to be more familiar with theses and journal/magazine articles, and less familiar with the services of e-books. Moreover, respondents used more of those services provided in digital libraries that they were familiar with.

Table 4 Familiarity and Usage of Digital Libraries

|  | Familiarity | Times Searched | Times Downloaded |
|---|---|---|---|
|  |  | (number of times/month) | |
| Theses | 4.93 | 2.28 | 1.40 |
| E-books | 3.83 | 0.75 | 0.36 |
| Journal/Magazine Articles | 4.82 | 3.56 | 3.01 |
| Multimedia Files | 4.06 | 1.37 | 1.20 |

Note: Familiarity was measured using self-evaluated scales with ten points the most familiar and one point the least familiar. Respondents evaluated familiarities of the digital library at school.

In evaluation of digital libraries, the respondents were asked to rate completeness and convenience of digital libraries of the universities they were studying. Ten points would be the highest for completeness and convenience, and one point the lowest. The average score of completeness was 7.10 and the average score of convenience was 6.83. These results coincided with the familiarity of digital libraries of respondents. Since respondents were not totally familiar with collections of digital materials in the digital libraries (with the averaged score less than five); hence, the convenience of digital libraries were not highly rated.

## User innovativeness

User innovativeness of digital libraries was measured using the Domain Specific Innovativeness (DSI) scales developed by Goldsmith and Hofacker (1991). Three positive worded statements and three negative worded statements were used with four-point Likert scales from one (disagree strongly) to four (agree strongly). Negative worded statements were coded reversely, and the scores of six DSI statements were summed into a total DSI score for each respondent. The DSI measurement was the only variable used in the clustering procedure to segment respondents into four different clusters.

Upon segmenting the respondents into various clusters of innovativeness, the users were classified as innovative users (8.31%), early adopters (47.27%), late adopters (39.67%), and laggards (4.75%). The average DSI score of innovative users was the highest (21.26), while of laggards was the lowest (9.90). Innovative users spent 14.72% of total online surfing time on information search information at digital libraries, and used the digital libraries more than 12 times a month on average. For innovative users, the familiarity of digital libraries was rated the highest among respondents in different clusters, especially the services of e-books and journal/magazine articles. Innovative users of digital libraries rated the completeness of digital libraries the highest. Although respondents in the cluster of laggards rated the convenience the highest among respondents in different clusters, they did not use digital libraries that much and were not that familiar with services provided in digital libraries. Although the ratings of completeness and convenience of digital libraries among respondents in different clusters were statistically insignificant, the lower rating of convenience by innovative users could be because that they had higher expectations on convenience. For occasional users like respondents in the cluster of laggards, digital libraries provided a way to obtain information without the need to go to the brick-and-mortar libraries, which would be convenient.

Table 5 Segmentation of Digital Library Users

|  | Innovative Users (n=35) | Early Adopters (n=199) | Late Adopters (n=167) | Laggards (n=20) | F Statistics |
|---|---|---|---|---|---|
| Respondents (%) | 8.31 | 47.27 | 39.67 | 4.75 |  |
| DSI (Innovativeness) | 21.26 | 17.29 | 13.75 | 9.90 | 839.79[***] |
| Online Surfing Time Used in Digital Libraries (%) | 14.72 | 12.32 | 11.09 | 6.97 |  |
| Frequencies of Digital Library Usage (times/month) | 12.73 | 8.24 | 5.82 | 4.10 | 13.99[***] |
| Evaluation of Completeness | 7.17 | 7.07 | 7.10 | 6.90 | 0.13 |
| Evaluation of Convenience | 6.89 | 6.83 | 6.74 | 7.30 | 0.50 |
| Familiarity |  |  |  |  |  |
| Theses | 5.89 | 5.14 | 4.66 | 3.50 | 3.45 |
| E-books | 4.43 | 3.98 | 3.72 | 2.20 | 4.44[**] |
| Journal/Magazine Articles | 5.40 | 5.12 | 4.50 | 3.60 | 3.58[**] |
| Multimedia Files | 4.63 | 4.22 | 3.76 | 3.80 | 1.52 |

Note: Evaluations of completeness, convenience, and familiarity were measured using self-evaluated scales with ten points the highest and one point the lowest.
[**] indicates significance at 5 percent significance level; [***] indicates significance at 1 percent significance level.

Innovative users searched and downloaded more materials from the digital libraries. Frequent usage included collections of theses and journal/magazine articles. For a less used

service like e-books, the average times searched per month were 2.63, and the average times downloaded were 1.31 (Table 6).  Early adopters and late adopters used the digital libraries not as much as innovative users, but the services of journal/magazine articles were used more often than other services.  Laggards mainly used service of journal/magazine articles of digital libraries, and the quantities searched and downloaded were close to those searched and downloaded by late adopters.  In sum, services of journal/magazine articles in the digital libraries are the most popular for users, followed by collections of these and multimedia files. The e-book services are much less searched and downloaded by users of digital libraries.

Table 6 Searching and Downloading Digital Materials from Digital Libraries

| | Innovative Users (n=35) | Early Adopters (n=199) | Late Adopters (n=167) | Laggards (n=20) | F Statistics |
|---|---|---|---|---|---|
| Times Searched (#/month) | | | | | |
| Theses | 6.26 | 2.44 | 1.37 | 1.40 | 9.58*** |
| E-books | 2.63 | 0.72 | 0.47 | 0.00 | 6.51*** |
| Journal/Magazine Articles | 10.86 | 5.27 | 3.15 | 3.15 | 7.67*** |
| Multimedia Files | 3.60 | 0.93 | 1.46 | 1.10 | 3.13** |
| Times Downloaded (#/month) | | | | | |
| Theses | 3.83 | 1.44 | 0.94 | 0.75 | 6.88*** |
| E-books | 1.31 | 0.27 | 0.31 | 0.00 | 3.25** |
| Journal/Magazine Articles | 9.56 | 4.25 | 2.83 | 2.74 | 6.19*** |
| Multimedia Files | 3.23 | 0.96 | 1.10 | 0.75 | 2.55* |

Note: * indicates significance at 10 percent significance level; ** indicates significance at 5 percent significance level; *** indicates significance at 1 percent significance level.

## Conclusion

This study was undertaken to examine digital library usage and to identify innovative users of digital libraries using data collected in four universities in Taiwan.  The Domain Specific Innovativeness (DSI) scales were used in the study to segment respondents into various cluster of innovativeness in digital library usage.  On average, college students spent 3.5 hours on digital libraries per week.

The findings in this study indicated that 8.31% of digital library users could be classified as innovative users.  They were frequent users and were familiar with services provided by digital libraries.  Close to 15% of online surfing time of innovative users was spent on information search in digital libraries.  Evaluations of completeness and convenience of digital libraries were statistically insignificant among respondents in different cluster, although innovative users rated completeness of digital libraries higher than respondents in other clusters.  Innovative users searched and downloaded more materials from digital libraries than respondents in other clusters.  Journal/magazine articles were the most frequently used services for digital library users, while e-books were used much less often in digital libraries.

Managerial suggestions for digital libraries are:

1. Provide education programs for current and potential users to get acquainted with services of digital libraries.  Only when users are familiar with the services in the digital libraries, the usability could be enhanced.

2. Design website of digital libraries easy for naïve users to surf. Some search techniques need practice to know how to search efficiently. Naïve users could be frustrated if not be able to search or download the materials when they need to.

3. Encourage users to use digital libraries by creating specially designed marketing activities to attract users to try newly established services.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the authors and that the paper was conceived and written by the authors alone and has not been published elsewhere.  All information and ideas from others is referenced.

# Urban Teenagers Talk about Leisure Reading

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*In urban school districts in the United States, it is not unusual for 80 percent of the eighth-graders to read below grade level. Schools are tackling low literacy levels by initiating literacy programs, many of which contain a focus on building the habit of leisure reading. While research has shown a connection between success in school and the amount of leisure reading students do, little is known about the leisure reading habits of urban teenagers. This paper reports the results of a three-part study investigating the leisure reading behaviors of urban teenagers and suggests strategies to support their literacy development.*

*Urban teenagers, leisure reading, adolescent literacy*

## Introduction

Strong literacy skills are necessary to succeed in school and in life. Individuals who do not have these skills find themselves at a serious disadvantage "in social settings, as civil participants, and in the working world" (Biancarosa & Snow, 2006, p. 3). Yet, 74 percent of American eighth-graders are reading below grade level nationwide (NCES, 2007). In urban communities only an estimated 20 percent of students are reading at grade level and thus are prepared to master high school-level content (Balfanz, Spiridakis, & Neild, 2002; Biancarosa & Snow, 2006). As Biancarosa and Snow (2006) point out, in the era of the No Child Left Behind (NCLB) Act performing below grade level in reading carries increasingly higher stakes for retention and ultimately the withholding of high school diplomas.

Difficulty with reading negatively impacts achievement in all areas of the curriculum. According to Schoenbach, Greenleaf, Cziko, and Hurwitz (2000), many adolescents, hit a "*literacy ceiling*" when they reach middle and high school. That is, they are unable to "independently access the knowledge and information embedded in the books and other printed materials that are part of a curriculum" (Schoenbach et al., 2000, p. 5). This inability interferes with their capacity to accomplish the challenging work necessary to meet high academic standards. Teachers and students alike become frustrated. Students come to think of themselves as non-readers or poor readers. Many avoid reading, waiting for the teacher to tell them what they need to do. Others attempt to become invisible, while still others act out, creating distractions to cover up their inadequacies.

Many schools have begun to tackle the problem of reading in the middle- and high-school years by initiating adolescent literacy initiatives. A common element found in well-regarded programs is a focus on building the habit of leisure reading (McGrath, 2005). Both qualitative and quantitative studies have demonstrated a correlation between success in school and the amount of leisure reading students do (c.f. Allington & McGill-Franzen, 2003; Krashen, 1993, 2004). While numerous researchers have surveyed the leisure reading habits of adolescents, urban youth have accounted for only a small percentage of the respondents.

If, as the research indicates, there is a strong relationship between leisure reading and school achievement, it only makes sense that educators develop an understanding of the leisure reading habits of urban adolescents. This paper reports the findings of a three-part study investigating the leisure reading habits of 826 urban middle and high school students. The study investigated five aspects of urban teen leisure reading: 1) Do urban teenagers read in their leisure time; 2) If they read, what do they read, when do they read, and why do they read; 3) What topics and types of characters or people do they like to read about; 4) How do they obtain their reading material; and 5) Who encourages them to read?

## Literature Review

### *Leisure Reading Defined*

Leisure reading is the reading students choose to do on their own, as opposed to reading that is assigned to them (Mellon, 1987). Also referred to as free voluntary reading (Krashen, 1993, 2004; Short, 1995), spare time reading (Searls, 1985), recreational reading (Manzo & Manzo 1995), independent reading (Cullinan, 2000), reading outside of school (Anderson, Wilson, & Fielding, 1988), and self-selected reading (Worthy, Turner, and Moorman, 1998), leisure reading involves personal choice, choosing what one wants to read, and reading widely from a variety of sources—not just books.

### *Teenagers and Leisure Reading*

Numerous research studies conducted over the last twenty years show that, contrary to popular opinion, teenagers do read. As Aronson (2001) points out, if this were not true, "how else would they install new programs, pass driving tests, select precisely the right clothing and look, know all about their favorite teams, stars, musicians, and even writers if they weren't constantly reading" (p. 101).

The Mellon poll, administered to 362 ninth graders in two rural high schools in North Carolina, found that 82 percent of the students said they read in their spare time (Mellon 1987). Moffitt and Wartella (1992) reported similar findings in their study of the leisure reading habits of 414 high school students in central Illinois; 78 percent of the students claimed to read books for pleasure.

In 1999 SmartGirl, in cooperation with the Young Adult Library Services Association's (YALSA) Teen Read campaign, posted a reading survey to their Web site. Twenty-six percent of the 3000 teens responding reported reading constantly for their own pleasure; 46 percent said they didn't read much for pleasure, but they liked to read when they got a chance (SmartGirl 1999). This survey has been conducted each year since 1999 with similar results.

The READ California poll, conducted for the California State Department of Education in 1999, surveyed 201 adolescents. Eighty-five percent of the respondents said they read outside of school (Krashen 2001). A nationwide survey conducted in 2001 by Hart (2001) for the National Education Association, found that teens rate reading higher in importance in terms of its impact on their future success than they do math, science, and even computers. Eighty-seven percent of the 509 teens polled say they find reading relaxing; 85 percent view it as rewarding and satisfying; and 79 percent consider it stimulating and

exciting. Finally, Kaczmarek & Stachowiak (2004) surveyed 163 girls attending a Catholic high school. Ninety percent of the students said they enjoy reading. Freshmen tended to read the least, with upperclassmen averaging three hours per week.

*Leisure Reading and School Success*

Both qualitative and quantitative studies demonstrate a correlation between success in school and the amount of leisure reading students do (Anderson, Fielding & Wilson, 1988; Allington & McGill-Franzen, 2003; Krashen, 2004). The amount of leisure reading done outside of school has consistently been found to relate to achievement in vocabulary, reading comprehension, verbal fluency, and content knowledge (Ruetzel & Hollingsworth, 1991; Short, 1995). Students who read in their spare time become better readers, score higher on achievement tests in all subject areas, and have more content knowledge than those who do not (Cunningham & Stanovich, 1991). According to Krashen (1993), "although free voluntary reading alone will not ensure attainment of the highest levels of literacy, it will at least ensure an acceptable level" (p. 84).

# Methodology

This three-part study was conducted in two middle schools and one high school in the United States. Part 1 was conducted in a small urban middle school in a large Northeastern city.[1] Two-hundred forty-five students attend the school which serves grades six through eight as an alternative middle school. Twenty-one percent of the students are Caucasian, 73 percent African-American, three percent Hispanic, and three percent Asian American. Sixty-one percent of the students qualify for free or reduced lunch. Results on the most recent State Assessment of reading indicate that 67 percent of the students are scoring at basic or below basic levels.

Part 2 was conducted in a large urban middle school in the same Northeastern city.[2] The school serves approximately 1,340 students in grades five through eight. The student body is largely Latino (66%) and African American (27%). Eighty-six percent of the students qualify for free or reduced lunch. Results on the most recent State Assessment of reading indicate that 68 percent are performing below basic, 23 percent basic, and nine percent proficient.

Part 3 study participants included 28 tenth and eleventh grade students enrolled in three English classes at a small urban high school in the Southern United States. Fourteen percent of the students were African American, 18 percent were Hispanic, and 68 percent were Caucasian. Four were enrolled in English 10A, a standard level college prep English course; one in English 10B, a lower level English class; and 23 in Honors English 11.

To collect data for Part 1 and Part 2 of the study, middle school teachers administered a five-page, 20-item questionnaire focused on factors related to leisure reading: whether or not adolescents read in their leisure time; if they do, what, when and why they read, the topics and types of characters or people they like to read about, how they obtain their reading material, and who encourages them to read; if they don't read, why not. The questionnaire, adapted from the Smartgirl.com survey (1999), contained 16 multiple choice questions and four open-ended questions: 1) What was your favorite book when you were in elementary

school?  2) In middle school?  3) What is the best book you've read this year?  4) Is there anything else you'd like to tell us about reading?  Students were also asked to indicate their gender and age.

Part 3 employed a range of qualitative and quantitative data collection methods.  First, the 28 high school students who volunteered to participate completed a survey designed to assess how they spend their leisure time.  The survey, based on surveys used in prior studies focused on the leisure reading of teenagers (SmartGirl.com, 1999; Nipped, Duties, & Larsen, 2005), included questions about their activities outside of school and their reading practices and materials. Next, 19 of the students volunteered to keep reading logs for one week in February, March and April 2008 in which they recorded the title of anything they read (including websites, social networking sites, instant messaging, email, and text messaging), along with the approximate time spent reading each item. Finally, these 19 students participated in individual interviews in May which focused on their history as a reader.

## Findings

Table 1 provides demographic data for the study participants.

| PARTICIPANTS | SCHOOL 1 MIDDLE SCHOOL | SCHOOL 2 MIDDLE SCHOOL | SCHOOL 3 HIGH SCHOOL | TOTAL |
|---|---|---|---|---|
| Female | 119 | 309 | 14 | 442 |
| Male | 95 | 275 | 14 | 384 |
| Total | 214 | 584 | 28 | 826 |

**Table 1. Study Participants**

Data were analyzed to determine what percentage of respondents, both overall and by gender claimed they did or did not read in their spare time.  For non-readers, reasons they gave for not reading were examined.  For readers, factors relating to types of reading material chosen for leisure reading were analyzed: what, when, why they read; the topics and types of characters or people they like to read about; how they obtain their reading material, and who encourages them to read.  Differences in the three schools were also examined.

*Reading as a Leisure Activity*

As Table 2 shows, seventy-two percent of the students indicated that they engaged in reading as a leisure activity, a finding which is consistent with the other studies of adolescent reading discussed in the literature review.  Twenty-two percent said they read "constantly" and 50 percent indicated they "read when they get a chance."  Six percent of the adolescents indicated that they do not read; the other 21 percent said they read only for school.  Females were more likely to read for pleasure than males (79% versus 65%).  This finding too is consistent with previous studies that found that female adolescents were more likely than male adolescents to engage in leisure reading (McKenna et al., 1995; Moffitt & Wartella, 1992; Simpson, 1996).

| | SCHOOL 1 MIDDLE SCHOOL | SCHOOL 2 MIDDLE SCHOOL | SCHOOL 3 HIGH SCHOOL | TOTAL |
|---|---|---|---|---|
| I read constantly for my own personal satisfaction | 24% | 22% | 21% | 22% |
| I don't have much time to read for pleasure but I do it when I can | 49% | 50% | 54% | 50% |
| I only read what I'm supposed to for school | 22% | 22% | 18% | 21% |
| I basically don't read much | 6% | 6% | 7% | 6% |

**Table 2. How often do you read?**

The students seemed to do most of their reading after school or at night. Only 16 percent of the students indicated that they read on the weekend. Reading during summer vacation was also not popular with students. Only 22 percent of the students reported that they continue to read for pleasure during the summer months.

*Students' Attitudes toward Leisure Reading*

When students were asked if they enjoyed reading, 34 percent responded "yes," 57 percent responded "sometimes," and eight percent responded "no." Again there was some difference between the attitudes of males and females—40 percent of the girls responded yes as compared to 28 percent of the boys. When asked if they had more time, if they would read more, 34 percent of the students said "yes" and 48 percent responded "probably."

As Table 3 shows, the majority of the students indicated that they read in their spare time for three main reasons: fun and relaxation, to learn new things, and because they get attached to the characters they are reading about. Fun and relaxation were described in a variety of ways. According to one young woman, "reading is really exciting because you can get into the book and imagine the story's characters." A young man echoed her feelings: "I love making my own adventures and fantasies while I read." Others described reading as "fascinating," "colorful," and "better than TV."

| REASON | SCHOOL 1 MIDDLE SCHOOL | SCHOOL 2 MIDDLE SCHOOL | SCHOOL 3 HIGH SCHOOL | TOTAL |
|---|---|---|---|---|
| For fun | 57% | 58% | 59% | 57% |
| It's relaxing | 50% | 47% | 55% | 51% |
| I get attached to characters I'm reading about | 55% | 34% | 41% | 43% |
| To learn something new/it's educational | 42% | 48% | 32% | 41% |
| It's exciting | 42% | 35% | 36% | 38% |
| For escape | 22% | 16% | 59% | 33% |
| For a time filler | 24% | 17% | 41% | 27% |
| For motivation | 16% | 16% | 27% | 20% |
| For brain stimulation | 19% | 24% | 14% | 19% |

**Table 3. If you read, why do you like to read? Check all that apply.**

The students who read to learn new things did so "to get better at it [reading]," and "to gain knowledge." Many of the students recognized that the more they read, the better readers they become. Comments included: "Reading is good for everybody because you learn more about reading;" and "Reading improves your vocabulary." The teenagers who read to "gain knowledge" were interested in satisfying their curiosity about special topics, improving their grades in school, learning English, preparing for college or work, or learning how to cope with obstacles in life. One student for example said she liked to read about "fashion tips and also hairstyles." Several of the male students indicated a preference for reading websites and magazines about their favorite sport. Some students saw reading as a way to improve their grades in school. According to one young woman, "Books are fun to read because you can put your grades up." A number of the students mentioned reading as a way "to learn the [English] language." The high school students in particular recognized reading as critical for success in college and careers. As one of them put it, "it's hard to do certain things in school or on the job if you can't read well." Several of the students used reading as a form of bibliotherapy. One student explained, "I like reading books about kids my age that have been abandoned and abused, like I was. It helps me find new ways to deal and confront it."

The students who indicated that they read because they get attached to the characters they are reading were passionate in their responses. Several of the female high school students, for example, were reading *Twilight* (Meyers, 2005). When I asked them what was appealing about the book, one replied, "Oh my! Those books…the characters! Edward is… oh, my!" Another young woman explained, "Reading moves me emotionally. I develop relationships with the characters—and they don't argue back!

Those who did not enjoy reading seemed to prefer other activities rather than simply rejecting the act of reading (see table 4). This was especially true for the high school students. Spending time with friends, participating in sports, and surfing the web were more interesting to them than reading. As one young man stated, "There are just too many temptations like the computer, the Internet, and talking to my friends." Their reading logs showed that these students spend an average of two hours and forty-five minutes per day using MySpace, instant messaging, and/or text messaging to keep in touch with their friends. Only two of the 28 students reported spending no time using these social networking technologies.

| REASON | SCHOOL 1 MIDDLE SCHOOL | SCHOOL 2 MIDDLE SCHOOL | SCHOOL 3 HIGH SCHOOL | TOTAL |
|---|---|---|---|---|
| Rather spend time with friends | 52% | 33% | 83% | 56% |
| Rather watch TV | 56% | 35% | 67% | 53% |
| Like other activities better | 41% | 32% | 64% | 46% |
| Rather surf the web | 35% | 29% | 67% | 44% |
| Too busy/no time | 30% | 27% | 67% | 41% |
| Trouble concentrating | 34% | 29% | 40% | 34% |
| Rather play video games | 44% | 24% | 28% | 32% |
| Too much school work | 33% | 23% | 39% | 32% |
| Can't find a good book | 30% | 24% | 39% | 31% |
| Can't get into stories | 26% | 18% | 28% | 30% |
| Reading makes me tired | 25% | 23% | 33% | 27% |
| Girls more interesting | 23% | 22% | 28% | 24% |
| Boys more interesting | 18% | 20% | 17% | 18% |
| Reading is boring/not fun | 20% | 18% | 17% | 18% |

**Table 4. If you don't read, why not? Check all that apply.**

The lack of appealing resources was another common theme. Comments included: "Libraries should have better books;" "For me reading is fun, but I can't always find the books I like;" and "I wish there were magazines in the library." For the high school students, lack of choice was another prevalent theme. Many of them talked about the books they were "forced" to read in school and described them as boring and having little relevance to their lives. One young woman even remarked that "having to read books I didn't choose for school has made me not enjoy reading."

*Leisure Reading Materials*

When asked what they prefer to read, as Table 5 shows, the responses from the middle school students were similar. Magazines were clearly the preferred leisure reading material. Top choices for males included sports, video gaming, and music. The females chose music magazines, followed by fashion and beauty, and video gaming. Comic books/graphic novels and the Internet were also favorites. Books accounted for a smaller percentage of the students' leisure reading materials (37% and 30%).

The high school students' responses were quite different. The Internet was clearly their preferred leisure reading material (65%), followed by books (57%), and then magazines (48%). When asked why they preferred to read online materials, comments included, "it's easier, more convenient;" "I can be on more than one website at a time;" "it's more interesting;" "there are more choices"; and "I get more recent information." The social nature of the Internet was mentioned by the majority of students as well. As one young woman explained, "I'm more interested in the social. When I'm on the web, my friends are on there too and we can talk to each other."

| MATERIAL | SCHOOL 1 MIDDLE SCHOOL | SCHOOL 2 MIDDLE SCHOOL | SCHOOL 3 HIGH SCHOOL | TOTAL |
|---|---|---|---|---|
| Magazines | 87% | 72% | 48% | 69% |
| Music | 63% | 63% | 36% | 54% |
| Sports | 57% | 42% | 39% | 46% |
| Entertainment | 55% | 36% | 46% | 46% |
| Fashion/Beauty | 47% | 40% | 39% | 42% |
| Video game | 48% | 49% | 21% | 39% |
| Puzzle | 26% | 35% | 11% | 24% |
| Science | 12% | 16% | 7% | 12% |
| News | 7% | 9% | 7% | 8% |
| Internet | 40% | 37% | 64% | 47% |
| Books for pleasure | 37% | 30% | 57% | 41% |
| Comics/ Graphic novels | 49% | 44% | 18% | 37% |
| Newspapers | 17% | 20% | 29% | 22% |

**Table 5. What do you like to read? Check all that apply?**

Another survey question asked the students to indicate the types of characters or people they like to read about. Again, there were differences between the responses of the middle school and high school students (see table 6). The high school students overwhelmingly preferred to read about "people or characters like me" (71%). While the middle school students wanted to read about people like themselves (58% and 43%), the most popular topic for them was celebrities (63% and 56%). The least popular topic for all three groups was historical figures.

| TYPE OF CHARACTER OR PERSON | SCHOOL 1 MIDDLE SCHOOL | SCHOOL 2 MIDDLE SCHOOL | SCHOOL 3 HIGH SCHOOL | TOTAL |
|---|---|---|---|---|
| People or characters like me | 58% | 43% | 71% | 57% |
| Celebrities | 63% | 56% | 29% | 49% |
| People my age who have done some cool or amazing things | 47% | 42% | 54% | 48% |
| Sports figures | 44% | 43% | 43% | 43% |
| Musicians | 36% | 42% | 46% | 41% |
| Fantasy characters | 43% | 38% | 36% | 39% |
| People or characters a lot different from me | 41% | 31% | 43% | 38% |
| People or characters my age wrestling with tough issues | 44% | 35% | 36% | 38% |
| Animals | 31% | 39% | 0% | 23% |
| Historical figures | 21% | 18% | 21% | 20% |

**Table 6: Which of the following types of characters or people do you like to read about?**

*Sources*

Students in the two middle schools indicated that they get their reading material from three primary sources: the school library (65%), the public library (53%), and the classroom (48%). The high school students, however, reported that they get most of their reading material from bookstores (54%). The school library was a source of reading material for only 36 percent of the high school students; the public library for 39 percent. In the interviews these students explained that they mainly use libraries for materials related to school projects, not for leisure reading materials.

*Specific Influences*

The final factor studied was who encourages these adolescents to read. Not surprisingly, parents and teachers topped the list, with 72 percent of the teenagers choosing parents and 65 percent choosing teachers. Overall, librarians were chosen by 40 percent of the students—26 percent of the students selected school library media specialist; 14 percent selected public librarian. Twenty percent of the middle school students indicated that their friends encouraged them to read. This was true for only 10 percent of the high school students.

## Discussion

A number of themes emerged from the data. First, these urban teenagers appear to be reading. In general, 72 percent of them indicated that they read in their leisure time, albeit for some readers it might be only an occasional pursuit. It seems that when educators expand their definition of reading beyond "literary fiction," they find that young adults continue to read in their spare time despite the time pressure and social pressure they experience.

The students also appear to recognize the value of reading. In their comments to the open-ended survey questions and the interview prompts, many of the students acknowledged the importance of reading to their success in school, college, and the workforce. While the majority seemed to view reading as a "quest for information" or "means to an end," there were some who saw reading as "an experience," or as Probst (1988) describes it, "a process of self-creation" (p. 21).

Most of the students view reading as a solitary activity. For the most part they do not see themselves as part of a community of readers. When asked if they ever talked to their friends about the things they were reading, most responded no. The only discussions they reported having with teachers revolved around the books they were reading for class. According to Hynds (1990), when students "do not envision themselves as members of a literate community, they generally do not develop literate behaviors (p. 255)."

Not surprisingly, the students prefer reading materials that are relevant to their lives—magazines that deal with topics of interest to them, books about teenagers like them, and the Internet which they view as not only providing more relevant, up-to-date information, but doing so in a "social" manner. This is consistent with Hynds's (1990) research which found that when teenagers read for pleasure they are searching for materials that will entice them to engage and maintain their interests.

The students appear to read very little during the summer. This is particularly troubling since research shows that summer reading is critical to summer learning, especially for low performing and/or disadvantaged students, like those in the two middle schools (Allington & McGill-Franzen, 2003; Kim, 2004).

Finally, librarians seem to have minimal influence on the leisure reading behaviors of these teens. This may be due to the fact that most of the study participants said they visit libraries primarily to complete research projects for school. This means their interactions with librarians are most often related to the research process—locating and evaluating resources that support the curriculum—rather than to leisure reading.

## Implications

### For Educators

Scherer (2005) challenges educators to look to urban schools for solutions to their problems. The urban teenagers who took part in this study provided several strategies educators might use to better support teen literacy development.

- Utilize teens' social relationships to build interest and enthusiasm for reading. Employ a reader response-centered approach to literacy instruction. Create book clubs. Use the Internet—listservs, blogs, wikis, and social networking sites—to support student conversations about books. As Aronson (2001) points out, "whenever teenagers get to books, and get to talk about them, the results are amazing" (p. 106).

- Include more of the types of materials students prefer to read in libraries and classrooms. As Allington (1994) points out, personal interest "remains the most potent factor in the development of reading processes" (p. 21).

- Determine how to utilize materials such as magazines, graphic novels, and the Internet to teach and reinforce the reading strategies that academic discourses and disciplinary fields such as science, mathematics, and the social sciences require.

- Expand the literature used in English classrooms to include literature to which students can relate.  According to Rosenblatt (1991) if we want students to become lifelong readers, "the language, the setting, the theme, the central situation…must hold out some link with the young reader's past and present preoccupations, anxieties, emotions" (p. 72).

- Provide time during the school day for leisure reading.  This is particularly important for economically disadvantaged urban students who often have to work to improve financial conditions at home, and may not have a place or the resources to read texts of their choice outside of school (Fisher, 2004).

- Aggressively market books and other reading materials to urban teens. Booktalks, podcasts, book trailers, and book clubs are all excellent ways to introduce teens to appealing reading material.  Additionally, Tatum (2005) suggests that educators develop lists of "must-read" texts for minority teens whose literacy needs are often intertwined with cultural, social, and emotional factors.

- Adequately fund school and classroom libraries.  For students in low income areas, school is the primary source for students' reading materials (Worthy et al., 1998); yet urban school districts are less likely to adequately fund school libraries than their suburban counterparts (NCES, 2005).  Neuman and Celano (2001) analyzed school libraries in both low-income and middle-income neighborhoods and found that the students who were most likely to benefit from school libraries were offered the poorest services and resources and the least access.  Similarly, classroom libraries in low income communities tend to be smaller.  Duke (2000) found that classroom libraries in low-income school districts were about 40 percent smaller than those in high-income school districts, with fewer new books being added every year.

- Actively promote summer reading.  Perhaps the first step is to increase access to books and other reading materials in the summer for urban youth. Access to books has been found to be positively associated with the amount of independent reading students do in the summer (Kim, 2004), yet there is large disparity between access based on socioeconomic status and ethnicity (Ferguson, 2002; Neuman & Celano, 2001).

- Partner with parents to promote and encourage leisure reading. Several studies show that parents play a significant role in developing and sustaining the leisure reading habits of children and adolescents (Kim, 2004; Milam, 2003; Strommen & Mates, 2004).  Chandler (1999) found that this was particularly true for students from working class backgrounds who often experience confusion because of a disconnect between literary experiences at home and school.

- Be passionate about your love of reading!  In order to sustain and encourage the reading habits of adolescent readers, educators must engage with them.  Join students in their reading conversations by letting them know what you read when you are on vacation, riding the train to work, or preparing for bed. Display the books you are currently reading.

*For Researchers*

Tatum (2005) identifies action research as a particularly promising way to discover how to address the literacy needs of urban youth. The questions he suggests, although directly related to the literacy development of black male adolescents, can be adapted to the broader urban adolescent community.

1. What happens to the literacy behaviors of urban teenagers when they are given a wide choice of reading materials? When educators broaden their definition of literacy to include non-traditional resources?

2. How can culturally relevant trade books, graphic novels, magazines, newspapers, and websites be used to teach in the content areas?

3. How can the websites of authors and illustrators representing various minority groups be used to advance the literacy of urban teenagers?

4. How can the voices of urban teenagers be effectively used to encourage urban teenagers to engage in reading and writing?

5. How can technology be used to support the literacy development of urban teenagers?

6. How can school and public libraries work with parents and other stakeholders in the community to support summer reading?

7. How can current events in the community be used to advance the literacy of urban teenagers?

## Concluding Thoughts

As Tatum (2005) points out, there are no simple solutions; one method cannot fix all that needs to be fixed" (p. 153). However, by collaborating with urban teenagers to understand and address their leisure reading interests, educators can have a transformative effect on their lives and the lives of their families. Giving voice to urban teens—taking serious their ideas and opinions about leisure reading and literacy—may not only help educators better meet their literacy needs, but it may also empower these teens to take an active role in their educations and in their communities.

## Notes

1. The results of Part 1 have been published separately in, Hughes-Hassell, S., & Lutz, C. (2006). "What do you want to tell us about reading? A survey of the habits and attitudes of urban middle school students toward leisure reading." *Young Adult Library Services,* 4(2), 39-45.

2. The results of Part 2 have been published separately in, Hughes-Hassell, S. & Rodge, P. (2007). "The leisure reading habits of urban adolescents." *Journal of Adolescent and Adult Literacy*, 51 (1), 22-34.

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## *Biographical Note*

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Star Struck: Characterizing Children's Literature Authored by Celebrities

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*Two theoretical frameworks are used to examine the literary quality of celebrity-authored books. The use of "traditional" literary elements identified by numerous researchers in the field of children's literature (Kiefer, 2006; Horning, 1997; Lukens, 2002 and Nodelman, 1988). The second theoretical concept is "Radical Change," developed by Dresang (1999). The theory includes three Radical Change Types. Changing Forms and Formats (Type One); Changing Perspectives (Type Two); and Changing Boundaries (Type Three). Combing these two will provide a multi-dimensional framework. The analysis should answer the following questions: (1) Are these books well written? (2) What literary value do they possess? (3) Are the books appealing to a diverse population? (4) Should these books be considered for inclusion in a school's library?*

*Children's Literature; Celebrity Authors; Evaluation*

## Introduction

The past two decades has brought to the book publishing industry a steady increase in the number of celebrities writing books for children. Book publishers have recognized this "phenomena" to be a lucrative market worldwide and have capitalized on it. Celebrities of all kinds and in different parts of the world – actors/actresses, television talk-show hosts, political commentaries, sport figures, elected government officials, musicians, pop singers, comedians, chefs, and authors of best-selling adult novels have entered into this new "niche" of the children's literature book market. (Arnstein, 2007 and MacPherson, 2004)

A discussion of quality, experience, and publicity is also taking place among authors and book reviewers of children's books. Several authors expressed their concerned over the quality of some books written by celebrities. The key aspect to this discussion is the notion that "anyone can write a children's book." Non-celebrity authors are asking publishers to ignore potential sales figures and focus on the quality of books published for children (Reuter, 2006 and MacPherson, 2004). Linda Sue Park, 2002 Newbery Medal winner for "*A Single Shard*," expressed her perspective of the celebrities writing children's books. She stated that other writers need to "get over" the fact that celebrities are entering into the field of children's literature. Publishers are in the business

of making a profit therefore, if these titles increase revenue, so be it. Park's only concern is the quality of the writing. "Poorly written books insult children by demeaning their capacity to learn. . .To publish a book that has not been rigorously revised and edited is dismissive of and disrespectful to the young people who will be reading it." (p.164)

Another aspect to this discussion is marketing. Most celebrities are marketed through mass media (i.e., television morning shows) as opposed to children's authors, many of whom are not receiving the same type of marketing strategies to promote their work. In an interview with *Publishers Weekly*, film and television actress Jamie Lee Curtis, acknowledged that being a celebrity has a definite advantage for the promotion of books. "There's no question that being a celebrity helps you get the book out; you are afforded media opportunities—magazine covers and TV appearances, for example--that other authors aren't, which is a big benefit. But when you have that hyphenate career [celebrity-author] the assumption is that your book is not good. I have great confidence that these books have not only the immediate 'celebrity' value, but lasting value as well" (p.35).

Why is this important to librarians? It is the mission of school library media specialists to expose children to the very best literature written by authors in the field of children's literature. It is also our mission to foster a life-long passion and love for reading. Finally, the publication of celebrity-authored books is ever increasing. With the modest budgets school libraries have, we must be diligent and choose the most appropriate, well written children's literature for the library. As a librarian and researcher, taking a closer examination of the literary quality of celebrity-authored books will help to identify which titles are worthy of merit and chosen to become a part of the library's collection.

## Method

### Theoretical framework

Two theoretical frameworks were used to examine the literary quality of the books. The first is the use of "traditional" literary elements identified and defined by numerous researchers in the field of children's literature (Kiefer, 2006; Horning, 1997; Lukens, 2002 and Nodelman, 1988). These elements include: plot, setting, characterization, point of view, theme, style, diversity, and illustrations/art work. The use of these literary elements provided a basis to determine how well the author has successfully achieved their attempt in writing a children's book of literary quality.

From these authors, I distilled a list of criteria, their descriptions, and prompting questions:

- **Plot** – is the action in the story; it tells how the characters will react to the sequence of events in the story.
- **Setting** – is the place in which the story takes place. Is it the present or the past? It describes the "place" where the action takes place.

- **Characterization** – The people portrayed in the story.
- **Point of View** – the author's choice of narrator for the story.
- **Theme** – describes the meaning(s) that lay beneath the story's surface. It can reveal the author's reasoning for the story.
- **Style** – refers to the way in which the author has chosen to use language and pictures to tell the story.
- **Diversity** – Does the characters in the book accurately portray racial and ethnic groups?  Are stereotypes avoided?
- **Illustrations/Art Work** – refers to the medium used to provide "pictures" to the story and the role they are intended to serve. Does the illustrations/artwork complements, decorate, detract, or clarify the text?

The second theoretical concept of evaluation is "Radical Change," a theory developed by Dresang (1999). Dresang states that Radical Change means "fundamental change, departing from the usual or traditional in literature for youth, although still related to it" (p. 4).  The Radical Change framework when used helps to identify, understand, and evaluate books with specific characteristics. This construct allows reviewers to move beyond "description type" evaluations to a more holistic method of evaluation of books published before and during the "digital age." In this context, "digital age" is defined by Dresang (1999) as, "the societal landscape that has gradually emerged as computers have become more commonplace and as the internet has become a locale where children can learn and play. Digital also refers not only to the media themselves but also to the interactive, connective qualities they possess, which seem to have permeated much of society" (p. 6). This theory involves evaluating books against three Radical Change Types: *Changing Forms and Formats; Changing Perspectives; and Changing Boundaries*. Each of these "types" contains specific characteristics to be used when evaluating literature.

Changing Forms and Formats (Type One) include the characteristics of graphics in new forms and formats, words and pictures reaching new levels of synergy, nonlinear, non-sequential organization, interactive formats, and multiple layers of meaning. The second type, Changing Perspectives (Type Two), include the characteristics that identify multiple perspectives, unheard voices, and youth who speak for themselves. The third type, Changing Boundaries (Type Three) identifies subjects and settings forbidden or overlooked, characters portrayed in a new way, new communities, and unresolved endings. It should be noted that the three types of Radical Change is not mutually exclusive. A book may contain one or more of the characteristics from each Type.

Dresang (1999) states,"…Radical Change is one of several valuable constructs for evaluating literature for youth, not complete in and of itself with regard to the question of merit. But…Radical Change can be coupled with the above-defined application of literary elements to assure a holistic, cohesive method of examining literature for youth; how the book as a whole relates to digital-age interactivity and connectivity, combined with how well the book's creators have done what they set out to do" (p. 266). The combination of these two methods of evaluation provided a multi-dimensional framework in the evaluation and analysis of celebrity-written books and in determining the answers to the following questions: (1) Are these books well written? (2) What literary value do

they possess? (3) Are the books appealing to a diverse population? (4) Should these books be considered for inclusion in a school's curriculum and library?

## Identification of titles

I used several online databases to identify the celebrity-written children's books. At the time of writing this paper, 91 celebrities and a total of 287 children's books have been identified; with the majority of them still in print. There are 24 non-fiction titles and 263 fiction titles. Table 1 shows the breakdown of the categories for the non-fiction titles. This list is not all inclusive. There are new titles constantly being published and information on several out of print titles are still under investigation. Research will continue until all authors and titles published before and during 2008 are identified.

Table 1

| Category | Number of Titles |
|---|---|
| Art | 1 |
| Biographies | 2 |
| History | 4 |
| Humor | 2 |
| Mathematics | 2 |
| Poetry | 3 |
| Self-Help/Self Esteem | 3 |
| Sports | 7 |

The ninety-one celebrities range from actors/actresses to government-elected officials. Table 2 shows the career fields of the celebrities. It should be noted that not all celebrities listed are United States citizens and the identification of all celebrities outside of the U.S. is still in progress. Several individuals have had multiple careers. I categorized them in their first profession. For example, Queen Latifah started her career in the music industry. She has expanded her career into acting. I placed her in the "singer/songwriter" category. Another example is Bill Cosby. He started his career as a comedian and moved to acting. He was placed in the "comedian" category. Actors and actresses that moved from television to the movies are placed in one category. The one exception is Jesse Ventura. I placed him in the category of "government-elected official" even though his first profession was wrestling.

Table 2

| Profession | Number of Celebrities |
|---|---|
| Actor/Actress in Television and/or Movies | 23 |
| Adult Novel Authors | 7 |
| Artist | 1 |
| Chef | 1 |
| Comedian | 9 |
| Family member of government-elected official | 2 |
| Government-elected Official | 3 |
| Judge | 1 |
| Model | 1 |
| Movie Director | 1 |

| | |
|---|---|
| Playwright/Screen writer | 1 |
| Radio Talk-show Host | 1 |
| Royalty | 2 |
| Singer/Songwriters | 27 |
| Sports Figures | 5 |
| Television Journalist | 2 |
| Television Talk-show Host | 3 |

## Results: Evaluation: Using Traditional Literary Criteria and Radical Change

A review of the 287 titles is beyond the scope of this paper. For the purposes of this paper, twelve titles were randomly selected from the titles provided by the public library. Each title has been evaluated using the traditional elements and Radical Change.

*And the Winner is…* by LL Cool J is part of Scholastic's HipKidHop series of books that focus on "positive messages" for children. This book's theme is good sportsmanship. The text is written in bold white letters against a darker background. LL Cool J's picture is super-imposed on a simply drawn body. The theme of being a good winner or loser is shown through basketball. All facial expressions are seen through the author's facial photos, while other characters are drawn in purple and blue shadows without faces. What allows the interaction between the text and the illustrations is the CD that has the author "rapping" the words to music. The book alone does not successfully tie together the illustrations and text. Only when the CD is played that a connection between the text and illustrations could be made. No Radical Change types are visible in this book.

*Carnival of the Animals* is the author's attempt to bring narration to Camille Saint-Saens 1886 composition. John Lithgow created and performed the rhyming narration for the New York City Ballet. The text tells the story of a young boy who wanders off from his class on a field trip to the natural history museum. He falls asleep and in his dream, the animals in the museum come alive and are representative of his classroom teacher, music teacher, students, the librarian, nurse, and finally his mother. The illustrator uses watercolor and gouache to create the large and sometimes quirky animals. The little boy is the only "human" in the illustrations until the end of the story when he is reunited with his family. To illustrate the little boy's emotions, the illustrator draws him in different sizes and places him in a different place on each page. The reader is drawn away from the text to locate where the little boy is placed. There is an attempt by the illustrator to include Type One of Radical Change. The book includes a CD with the music performed by the Chamber of Los Angeles and John Lithgow's recitation of the text.

*Daddy Day, Daughter Day*, by talk-show host Larry King and his daughter Chaia, is the story about King's sharing time with his daughter after he divorced his wife. The book takes you through a day they spend together. The text distinguishes the thoughts between Larry and his daughter using a block-type font identifying Chaia and an italic tic font for Larry. The text flows around the water color drawings on every page and gives

the reader the feeling of "listening in" on their thoughts. Although this book shows how a father and daughter deal with the time they spend with each other, it is not didactic in the telling. It focuses on the feelings that each have when they are together. There is an attempt by the illustrator to include Type One of Radical Change.

*Halloween*, written by Jerry Seinfeld is a story of the author's vision of how to celebrated Halloween as a child. The illustrator uses a parody-likeness to several candy products and the author's likeness. The text is used within the illustrations to tell the story. Jerry's photograph with candy surrounding it covers the front and back inside cover. The text varies in sizes and colors as the story is told. The text flows in a non-linear pattern on each of the pages and the illustrations vary in size to accommodate the text. These are characteristics of Type One of Radical Change.

*Girls Hold Up This World* is written by Jada Pinkett Smith with photographs by Donyell Kennedy-McCullough. What makes this book unique is that this is the first children's book for the author and illustrator. The simple, rhyming poem written in different colors on each page allows the reader to focus on the well photographed pictures of the girls and women. Every race, ethnic, and religious background is authentically represented in this book. The theme is self-acceptance and togetherness. It is portrayed in a very positive manner without overwhelming the young reader. The photographs elicit conversation as each girl is dressed differently and engaged in different activities. Even though this is a good book to share with girls, no Radical Change Type is visible.

*Goodnight, My Angel,* are lyrics from a song set to illustrations. Grammy Award-winning performer Billy Joel has taken the words from the song he wrote for his daughter and had them illustrated for this bedtime storybook. The colored pencil illustrations covers the entire pages of the book with the text strategically placed on the background. There is no "white space" on any of the pages. The book contains a CD with the author singing the song. The illustrations dominate the text. No Radical Change Type in this book.

*I'm Gonna like Me: Letting off a Little Self-Esteem* written by Jamie Lee Curtis tells the story of a nameless boy and girl and how they find acceptance in their appearance, performance in school, interaction with family, friends, and the community. The setting is current and takes the reader through a day in the life of the two children. The theme stresses acceptance of one's self despite how others may view you. The author and illustrator use a non-linear, non-sequential format which is a Type One characteristic of Radical Change. The main text follows a non-linear pattern that forms around the illustrations on several pages. The scripted and printed text changes in size throughout the book. Objects such as books, posters, chalkboard, food, and clothing contain text that draws the reader's eye away from the main text. The illustrations include comments from secondary characters using text bubbles. There is one occurrence in which stereotypical characteristics are used to distinguish the cultural identity of African American, Native American, and Asian American children. The possible reason behind the inclusion of the characteristics lies within the illustrator's choice of how the illustrations would be drawn.

*If Roast Beef Could Fly* tells a story from Jay Leno's childhood. It is a story of how his father decides his "next big project" will be the building of a patio complete with a rotisserie. The plot is arrange sequentially. Subtle comments on the extravagance of his father's family and the thriftiness of his mother's family is shown through the text and illustrations. The theme that underlies this story shows how extravagance and thriftiness help solves the problem of losing the roast beef as a result of Jay's secret weapon to sample the roast beef before the meal.

The illustrations are done in watercolor. The colors are vibrant and appealing to the eye. Although the main text is set in Breugel, the illustrator uses color and size to emphasize sounds made by the slamming of the hood of the car, Jay falling into a pile of cement, the sizzling of the roast beef on the rotisserie, and the attempt by Jay's father when he tries to cut the plastic–covered roast beef. The illustrator also uses text in the illustrations on road signs, the hardware store, merchandise, and on the delivery trucks. These illustrative techniques attempt to incorporate new synergies between the picture and the text; a Type One characteristic of Radical Change. The book comes with a CD that contains the reading of the story by the author.

*Our 50 States: A family Adventure Across America* by Lynne Chaney is a non-fiction picture book about the fifty states as seen through the eyes of Mrs. Chaney's family. The book gives a two-page combination of text and pictures for each state. The illustrations are done in black ink, watercolor washes and colored pencil. The text is reminiscent of the illustrations found in the books published by DK publishing. The text and pictures are presented on the page in "chunks" which can be read in a linear or non-linear fashion. Some of the pages are bordered by a food item, animal, place, or specific fact about the state. This is a Type One characteristic of Radical Change. The book also comes with an illustrated fold-out map of the country.

*You Can't Judge a Book by It's Cover: Cool Rules for School* is Judge Judith Sheindlin's attempt to help youth make the right moral choices in various situations. The dust jacket has a photograph of Judge Sheindlin with her dog at her feet holding a book titled: "Golden Rules." Surrounding this picture are children drawn using watercolors standing, sitting, or lying down holding or reading books with curriculum titles. Unfortunately, the dust jacket is the only place where color is used. The text and illustrations are in black and white. The author makes her theme explicitly known in the introduction of the book. She has applied what she terms "adult sayings" to situations that children could face in their everyday lives. The text provides the adult sayings and then a situation to solve; complete with choices children can make. No Radical Change types are present in this book.

*Whoopi's Big Book of Manners* is a qwasi-funny look at the dos and don'ts of manners. The book covers manners you should have when talking, eating, conduct in public places, and other countries. The illustrations cover the entire page with the text embedded in the objects and dialogue boxes. At the corner of each page there is an illustration of a "turning to the next page" with text. The text varies in size. New manner topics are written in a large, bold font followed by the explanation written in a smaller

font. This is a Type One characteristic of Radical Change. While the subject of the book is one that is didactic in nature, the author and illustrator has put together this information in a way that allows the reader to learn about manners without the seriousness that is usually placed on this subject.

*Winners Never Quit,* written by soccer player Mia Hamm, tells how she learns the importance of team playing while playing with her family and friends. The text is placed around the watercolor illustrations. Different sizes and colors of text are used to emphasize actions in the illustrations. Photos of the author accompanying short descriptions of the action appear at the end of the book. There is an attempt by the illustrator to include Type One of Radical Change.

## Conclusions and Implications

Using the criteria from the two theoretical frameworks, I find that six of the twelve books contain Type One characteristics of Radical Change; four of the books included CDs with narration; and eleven out of the twelve books contain moral messages implicitly or explicitly stated. This lead back to the questions stated above concerning the literary quality of the books. The first question asks whether the books are well-written. My answer is eleven of the twelve books analyzed are well written and illustrated. The title by Judge Judy Scheindlin I find to be lacking in imagination and creativity. The second question concerns the literary value each book possess. The answer to this question is dependent on the reader and their personal perspective. I would venture to say that most children would enjoy eleven out of the twelve books; with Judge Judith Sheindlin's book being one that parents would be more apt to enjoy. The third question asks about the appeal to a diverse population. I would definitely answer "yes" to this question. The fourth and final question refers to the selection of these books for a school's library and curriculum. The answer to this question I leave to my audience. Ultimately, the choices for libraries are in the capable hands of the school media specialist. We select books based on the need to assist with the curriculum; and to provide reading for pleasure. Therefore, the selection of the titles will vary among the library media specialists.

The purpose in writing this paper is two-fold. First, there is a need to introduce an additional theoretical concept to use in conjunction with the traditional literary criteria to evaluate literature for children and young adults. This provides a choice in how we can effectively "evaluate" and not just "review" literature. According to Horning (1997), "Evaluation is a critical assessment of a book . . .Review refers to a formal written expression of the critical assessment, generally printed soon after the book under consideration has been published. Good reviews help readers create a mental picture of the book by briefly describing it and presenting an assessment of its quality (p. x). As stated above, the use of Radical Change with the traditional literary elements provides a comprehensive and holistic way of evaluating literature. Radical Change has been successful in the providing an additional method to evaluate children's literature and the interactivity between the child and the text (Pantaleo, 2004c, 2002; Hammerberg, 2001). The decision to use both methods to evaluate children's literature lies within each

reviewer. If the literary elements are used alone, do they provide a critical and comprehensive evaluation? In my opinion, I say, "no." But if Radical Change is used in conjunction with the literary elements, it can be used to identify and scrutinize literature that displays digital-age characteristics (Dresang, 1997, p. 253).

Secondly, serious consideration should be given to the use of Radical Change as a part of the evaluation process of children's literature. The significance of this paper is to open a dialogue about how literature should be evaluated and not review and to provide a method to analyze the digital text in this Information Age. Celebrity-authored books are the fastest growing niche in the children's book publishing market. The fact that these books occupy a large space on books store shelves and generates millions of dollars in revenue, warrants an evaluation of their content. Should they be part of the school libraries? Should they be purchased by parents for reading at home? Can these books foster a life-long passion and love for reading? How does the publication of these books affect children and young adult authors who have made it their career to write for youth and young adults? Should we as library media specialists be concerned about them at all? These are just a few initial questions that should be addressed as a community of information professionals.

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## Statement of Originality

This certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Who are Millennials?

# And what they want from libraries, bookstores, and librarians

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Understanding a generation's "peer personality" provides librarians a unique opportunity to develop services and programs tailored to the needs and unique attributes of a group of individuals. Master of Library Science students enrolled in a graduate research class at East Carolina University in Greenville, North Carolina, surveyed 245 18-to 24-year old members of the Millennial generation at various locations throughout the state to ascertain their use and perception of libraries and bookstores. Most important to Millennials are helpful library staff, good collections, and convenient hours. Least important are bargain items for sale, coffee, and the library or bookstore as a place to be with others.

Millennials and information; generational approach to bookstore and library perception and use

## Who are Millennials?
## And what do they want from libraries, bookstores, and librarians?

To understand the Millennial generation and where they turn for information and use and value bookstores and libraries, Master of Library Science students enrolled in a graduate research class at East Carolina University in Greenville, North Carolina, surveyed 245 18-to 24-year old members of the Millennial generation at various locations throughout the state such as restaurants, churches, bars, neighborhood parties and picnics, and stores.

*Research questions*

This study seeks to understand how 18-to 24 year old members of the Millennial generation perceive and use libraries and bookstores. It set out to answer the following questions: (1) Where do the Millennials who were surveyed turn for information? (2) How frequently within the last year have these Millennials gone to bookstores and public and college libraries? (3) What do they do at the bookstore or public or college library? (4) What do they value most and least about their bookstore and library experiences? (5) In their own words, how do they perceive bookstores and libraries?

*Literature review*

This review examines two areas of literature. The first is the use of a generational approach to understanding a group of individuals as proposed by William Strauss and Neil Howe. The second is how Millennials perceive and use bookstores and libraries.

*What is a generational approach?* Over one hundred and fifty years ago, Alexis de Tocqueville wrote that among democratic nations "each new generation is a new people" (2003, p. 547). It is likely that de Tocqueville would concur with a generational approach to understanding a group of people based on the recognition of reoccurring historical patterns (1991). Perhaps the most prolific authors to write about generational differences, Strauss and Howe use an interdisciplinary blend of social science and history to understand a group of people. As Strauss and Howe point out, "Americans habitually assume that the future will be a straight-line extension of the recent past. But that *never* occurs, either with societies or generations" (2000, p. 10).

A generation is a cohort-group of about 20 years or so that "defines itself against a backdrop of contemporary trends and events" that is shaped by history, culture, and the environment that surrounds them (Howe & Strauss, 2000, 46). These trends and events define each generation and help to formulate a generation's sense of self, also called a "peer personality," which is a set of collective behavioral traits and attitudes expressed throughout a generation's four stage lifecycle that consists of youth (age 0-21), rising adulthood (age 22-43), midlife (44-65), and elderhood (age 66-87). Two things occur as a generation ages. First, its peer personality evolves and becomes more identifiable. Second, as a generation moves into rising adulthood and adulthood, its influence on society grows as that of the preceding generations wanes.

Who are Millennials?

Millennials are a generation of children born between the years 1982 and approximately 2002 (Howe & Strauss, 2000, p. 41). Only slightly less numerous than the Baby Boomer generation born between the years 1943 and 1960 that is distinguished for its size and freespirited impact on society, the Millennial generation is expected to be just as influential. Although Millennials is their preferred moniker, other names used to describe this generation are Net, Y, Next, Digital, Echo Boomers, Boomlets, Nexters, and Nintendo. In Canada, Millennials are known as the Sunshine generation; in Germany, the Null Zoff ("no problems") generation; and in Sweden, it is Generation Ordning ("ordered generation") (Howe & Strauss, 2000, p. 62).

Strauss and Howe believe that Millennials are unlike any other generation in living memory. They are "more numerous, more affluent, better educated, and more ethnically diverse than those who came before, they are beginning to manifest a wide array of positive social habits that older Americans no longer associate with youth, including a focus on teamwork, achievement, modesty, and good conduct" (2006, p. 26). Generally, they are politically conservative yet more socially tolerant then previous generations. They are cooperative team players, followers looking for consensus. They opt for the good of the group, focus on deeds over words, and are patient and conforming. They are social and use technology to enhance their sociability. On the negative side, Milliennials are stressed out, overly scheduled, and require constant stimulation and

reassurances. The defining trend for Millennials is technology and the defining event is the fatal school shootings at Columbine High School in Littleton, Colorado.

A characteristic of Millennials is their feelings of uniqueness and being special. Unlike the preceding generation, called Generation (or Gen) X, in which divorce and abortion rates were high, Millennials have grown up in a pro-child culture in which "parents became parents because they wanted children"—and this sentiment was conveyed to their children (Eubanks, 2006, p. 1). Some parents of Millennials become so overly involved that a new word to describe this phenomenon—helicopter parents—has been coined. An example of hovering parents is seen in the results of the online poll conducted on January 11, 2006 at the Experience.com Web site. Thirty-eight percent of the four hundred students and recent college graduates who completed the survey admitted that their parents either had called, or physically attended a meeting with academic advisors and 31% reported that their parents had called professors to complain about a grade (Experience, Inc.).

*How Millennials use information* Each generation interacts with the world differently than preceding ones based on how they experienced society and culture and trends and issues while growing up (Strauss & Howe, 1991). Although generational proponents such as Strauss and Howe do not address library use, it is logical to assume that each generation likewise interacts with libraries in ways particular to them. Abrams and Luther (2004) provide three-insights into Millennials' use of information, learning, and beliefs that differs from Gen Xers born between 1961 and 1981. First, Millennials are format agnostic, and to them information is information, no matter its format. They expect information to be available anytime/anywhere and 24/7. Technology in integrated into their lives and must support their penchant for multitasking. Second, Millennials are experiential and collaborative learners who believe that "content and knowledge are inseparable." For them, "technology has blurred the distinction between private and public domains" (p. 37). Third, this generation is principled, civic minded, and direct and "demands respect and finds no need to beg for good service" (p. 37).

Curtis and her colleagues (2000) at the University of Georgia conducted focus groups among undergraduates to discover how Millennials' find and use information. Their findings indicate that most of these Millennial-aged college students begin research on the Internet, not by using library databases; search remotely rather than physically going to the library; and are unable to transfer their Internet search skills to other library resources (Curtis, 2000). Similarly, a survey by the Online Computer Library Center (OCLC) found that 80 percent of undergraduates use Web search engines for all or most assignments, while only half used the library's subscription-based resources (OCLC, 2002).

According to the National Endowment for the Arts (NEA) study, *Reading at Risk: A Survey of Literary Reading in America,* in which more than 17,000 adults were surveyed about their reading habits between the years 1982 and 2002, Millennials are reading literary works less than previous generations. Dana Gioia, chairman of the NEA, summarizes the findings of in one sentence: The literary reading of fiction, poetry, and drama in America is not only declining rapidly among all groups, but the decline has accelerated, especially among the young (Bradshaw, 2004, p. vii). However, recent evidence suggests that reading of fiction and nonfiction written specifically for youth has

increased among the youngest members of the Millennial generation.  According to a March 7, 2007, article in the Seattle Post- Intelligencer, sales of teens books to 12- to 18 year olds are up by a quarter between 1999 and 2005 (Goodnow, 2007).

Given this generation's preference for 24/7 access to information and the Internet, librarians must wonder if Millennials might stop using libraries.  The findings of Sweeney's (2004) focus group research on Millennial generation college students and soldiers in America suggests that this might already be occurring.  Sweeney asked college students and soldiers, "When was the last time you went to the public library or a bookstore?"  These Millennials responded that they had not typically been in the public library in more than a year.  For the bookstore, it was "within the last few weeks" (p. 167).

## Methodology

In November 2007, graduate students taking an online course at East Carolina University conducted face-to-face structured interviews with 245 18-to 24-year-olds throughout North Carolina to ascertain their information preferences and perceptions as well as frequency of bookstore and library use. Each graduate student in the class was required to survey 10 18- to 24-year olds, but two interviewed several more.  Criteria included interviewing no more than two individuals at on one type of venue and interviewing an equal number of males and females. Interviews were conducted at a variety of venues such as restaurants, bars, churches, parties, job sites, car washes, university athletic events, and stores.

## Limitations

Although the selection of Millenials to interview represents a convenience sample, the size of the sample and the geographic distribution of graduate students across the state of North Carolina ensured a diversity and variety perhaps not attainable in convenience surveys conducted primarily in one geographic location. The results are not assumed to be generalizable, but are a first step to understanding how a particular generation uses information, bookstores, and libraries.

## Results

The 119-item survey consisted of qualitative, quantitative, and open-ended questions. Graduate students received online training from a faculty member with extensive knowledge of research design and survey techniques. Five questions are described in this paper. Several answers total less than 100 percent due to rounding. Table 1 shows distribution by age and gender.

INSERT TABLE 1 HERE

*Question One: When you need information to solve a problem or find the answer to a concern, where do you turn? Select as many as apply.*

Altogether, the 245 respondents made 677 selections, but almost all respondents selected multiple information sources. Table 2 identifies the number of responses, percentages, and rank. Thirty-five respondents elected to identify "other" such as faculty, professors, and teachers (10), the college library (9), Bible and church (3), colleagues and teammates (3), and one each for magazines, Discovery Channel, online encyclopedia, inward, professionals, and medical doctors. Although the Internet is the single most popular response, summing the preferences for communicating with people (i.e., friends, family, faculty, professors and teachers, colleagues, and teammates) is 53.4%, or 355, of total responses. This is not surprising since one characteristic of Millennials is their sociability and penchant for social networking.

INSERT TABLE 2 HERE

*Question Two: How frequently within the last year have you gone to bookstores and public and college libraries?*

Responses to this question support similar findings by Sweeney (2004) that young adults are more likely to have recently visited the bookstore than the public library.

INSERT TABLE 3 HERE

*Question Three:  Which of the following have you ever done at the bookstore or public or college library? Choose as many as apply.*

Respondents were asked to choose from a list of 20 activities those they had ever done at a bookstore and public and college library.  The 20 activities (which have been grouped together for this article in order to save space) are: check out a book, magazine, music CD, or movie DVD; read a book or magazine without checking it out; read the newspaper; hang out with friends; attend a program; browse by looking at many different materials; ask for help to find a specific book, topic, or subject; play board games such as chess or Scrabble; study by myself; study with others; purchase coffee or food; use library computer; use library's wireless Internet; use the restroom; and other. Responses to activities were summed and the highest responses are identified in Table 4.

INSERT TABLE 4 HERE

The activities the respondents were least likely to participate at the bookstore are playing a board game such as chess or Scrabble (17 or 2.9 percent), attend a program (32 or 13.1 percent), or purchase a newspaper (39 or 16 percent).  At the public library, respondents were least likely to purchase coffee or food (each at 9 or 3.7 percent), or play a board game (10 or 4 percent). At the college library, respondents were least likely to play a

game (4 or 1.6 percent), check out a music CD (17 or 6.9 percent), or purchase food to eat in the library (35 or 14.3 percent).

*Question 4: On a scale of 1 to 5 with 1 being the most important to you and 5 being the least important, how important are each of the following to our bookstore or library experience?*

Respondents were asked to rate on a Likert scale of 1 to 5 (with 1 being the least important and 5 being the most important) the importance of the following 11 factors to their bookstore or library experience:  quality of materials, helpfulness of staff, convenient hours, convenient location, access to computers, comfortable chairs, access to Internet, place to be alone, place to be with others, bargain items to purchase, and coffee. The most important aspects of the bookstore and library experience were determined by summing the 4s and 5s on this Likert scale. Likewise, the least important aspects of the bookstore and library were determined by summing the 1s and 2s.  See Table 5 below for responses by Millennials.

INSERT TABLE 5 HERE

What respondents value most is quality of materials (books, magazines, and newspapers), which is followed by a tie for second place—helpful staff and convenient hours. Respondents identified coffee as least important to their bookstore and library experience. Bargain items for sale and the library or bookstore as a place to be with others ranked as the second and third least important factors.  Conversely, 50% of the respondents answered a 4 or 5 to the library or bookstore as a place to be alone. This group of Millennials values the library or bookstore as a place to be alone more than a place to socialize and be with others. This is surprising given the Millenials' penchant for socializing.

*Question 5:  When you think about the bookstore or library (public, college, and high school), what word or words come to mind?*

For this open-ended question, respondents were asked to furnish a word or words to describe the bookstore or library.  Each respondent was asked this question four times—once for the bookstore, public library, college library, and high school library—and in that order. Almost all respondents provided one word or words to describe bookstores and libraries.

A qualitative analysis of key themes was conducted and responses were coded as positive, negative, or neutral.  Examples of positive comments are "helpful librarians" and "relaxing environment." Examples of negative comments are "mean librarians" and "large and confusing." Examples of neutral comments are "quiet" and "books for sale."

In the sections below, a summary of the comments is provided and comments for each type of organization are compared with others.

*Bookstore* Comments about the bookstore were overwhelmingly positive and more positive than responses about libraries. Typical of positive comments were "comforting, calm," "quiet, smart people, eclectic," and "comforting, calm, peaceful." The bookstore is viewed as a comforting and peaceful place with many books and resources. It is described as intellectual, knowledgeable, informative, and interesting. Nine negative comments were made such as expensive, crowded and confusing, commercial, boring, and expensive. Respondents offered no negative comments about bookstore staff. Neutral comments included "coffee and quiet," "store that sells books, many books," and "knowledge."

*Public Library* Comments about the public library were mixed and more negative than those made about the bookstore. Although "boring" was not used to describe the bookstore, it was for the public library. In addition, this was the first time that negative comments such as "I hate to go to the library," "nerds," and "dirty" were made. Approximately 20 positive comments were made which included "puts a smile on my face," "easily accessible," and "helpful." Negative comments included "not very popular," "old and smells like an attic," and "lonely and boring." Neutral comments include "studying," "quiet," and "children." Compared to the bookstore, the comments were considerably more negative. It is interesting that seven respondents made positive comments about free access to books and information, which indicates that some respondents recognize that a public library provides free information while the bookstore does not.

*College* Comments about the college library were the most positive of all the libraries (but not as positive as the bookstore.) Positive comments were "helpful," "convenient," and "useful." Negative comments were "busy," "overwhelmed," and "big and unorganized." Neutral comments were "a place to study with others," "quiet," and "productive." Respondents view the college library as a comfortable place, studious, and a place to study by oneself or with others. Respondents did not refer to librarians, which could mean they either did not notice them or librarians were unobtrusive and not bothersome. In addition, respondents are more likely to use the library on their own or as a place to study, meet with friends, and sleep. Comments indicate that a perceived role of the college library is to support group and individual studying.

*High School library* Of all comments about libraries, the most negative were used to describe the high school library. There were 75 negative responses such as "boring," "library had a limited collection," and librarians are "unhelpful," "rigid," "mean," and "grouchy." Terms used to describe school librarians are "prudish," "mean," "crazy teacher," and "teacher required." Several young adults found the high school library to be dirty, dark, and disorganized. The single most negative comment was about the "horrible" high school research paper. Even though these research papers may not be developed in collaboration with the classroom teacher, their unpopularity is nevertheless associated with the media center and negatively influences the respondent's view of the

library. This is one reason to suggest that media specialists collaborate with classroom teachers to ensure that the required paper is a positive experience and research skills are taught in such a way that students can successfully complete this assignment.  In the neutral category, many Millennials remember the high school library as a quiet place for research, study, homework, reading, and book checkout.

*Where do we go from here?*

Collegiate librarians clearly have the advantage over school librarians because they are able to observe a cohort of students as it makes its way through primary and secondary education and have time to develop services tailored to them. By the time students reach college age, librarians have had time to create programs and services that meet a generation's "peer personality." Consequently, academic librarians have been the most aggressive in modifying services and programs to draw Millennials to the library. Because school librarians receive no forewarning, opportunities to teach to a generation's strengths may be lost.  It behooves librarians to understand each rising generation.

Although respondents were more likely to have visited the bookstore in the past year, the commercialism of bookstores was not lost on respondents. Several respondents noted the democratic nature of public libraries and that they were free and available to anyone in the community. This is a marketing strategy that public librarians may want to employ with these civic-minded Millennials. A second marketing strategy is to use bathroom space to promote the library's services and programs.  For bookstores and libraries alike, respondents consistently ranked using the restroom near the top of their list of activities.

To learn what clientele want from the library, it is important to observe, survey, and compare generations, not individuals. Librarians are warned not to group all generations together but to consider their "peer personalities" and their place in the life cycle—youth, rising adulthood, adulthood, and elderhood. High school librarians (and to a much lesser extent public librarians) need to improve their people skills. The number of negative comments, and their forcefulness,  was discomforting.

Librarians must keep in mind that one characteristic of Millennials is they have options and demand respect.  The literature is replete with studies about Millennials who choose to search the Internet rather than library databases. Millennials have choices and are already choosing search remotely from the comfort of their space rather than go to the library. What Millennials want is comfort and a relaxing place to "chill."  They want to be around adults who are respectful of them. Therefore, it is up to librarians to change the environment.

A continuation of research on this topic will provide clearer understanding about Millennials and why they are bypassing the library in favor of the Internet. Although Howe and Strauss (2002) identify 2002 as the last birth year of Millennials,  in a phone interview with Neil Howe on Marc 24, 2008, he said that it is difficult to determine the exact beginning and end date of a generation because generations transition in and become noticeable by looking backward at events.  Therefore, children born in 2008 may be  members of the Millennial generation rather than the next unnamed generation.  The

message from Strauss and Howe and de Tocqueville is that change happens and librarians must be prepared to provide programs and services that attract the rising generation.

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*Biographical Notes*

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Table 1:  Respondents by age and gender *n=245*

| Age | No. | % |
|---|---|---|
| 18 | 40 | 16.3 |
| 19 | 32 | 13 |
| 20 | 29 | 11.8 |
| 21 | 36 | 14.7 |
| 22 | 32 | 13 |
| 23 | 39 | 15.9 |
| 24 | 37 | 15.1 |
| | | |
| **Gender** | | |
| Male | 117 | 47.8 |
| Female | 128 | 52.2 |

* Percents total less than 100 due to rounding

Table 2.  Where Millennials turn for information *n=245*

| Information source | No. of responses | % | Rank |
|---|---|---|---|
| Internet | 204 | 30.1 | 1 |
| Friends | 175 | 25.8 | 2 |
| Family | 162 | 23.9 | 3 |
| Public library | 62 | 9.2 | 4 |
| Bookstore | 39 | 5.8 | 5 |
| Other | 35 | 5.2 | 6 |

Table 3.  Did you go to the bookstore or public or college library within the past year? *n=245*

**Bookstore**

| Yes | No |
|---|---|

|  | % of *n* |  | % of *n* |
|---|---|---|---|
| 223 | 91.0 | 22 | 9.0 |

**Public library**

|  | Yes |  | No |
|---|---|---|---|
|  | % of *n* |  | % of *n* |
| 135 | 55.1 | 110 | 44.9 |

**College library**

|  | Yes |  | No |
|---|---|---|---|
|  | % of *n* |  | % of *n* |
| 165 | 67.3 | 80 | 32.7 |

**High School library***

Did you go to the high school library when you were in high school?

|  | Yes |  | No |
|---|---|---|---|
|  | % of *n* |  | % of *n.* |
| 219 | 89.4 | 26 | 10.6 |

*This question was changed to recognize past actions.

Table 4.  What Millennials do at  bookstores and and public and college libraries? *n*=245

| **Bookstore** |  | **% of *n*** | **Rank** |
|---|---|---|---|
| Purchase a book | 224 | 91.4 | 1 |
| Browse | 173 | 70.6 | 2 |
| Purchase coffee | 160 | 65.3 | 3 |
| Read magazine w/our purchasing | 154 | 62.9 | 4 |
| Use restrooom | 150 | 61.2 | 5 |

| **Public library** |  | **% on *n*** | **Rank** |
|---|---|---|---|
| Ask for help to find book/information | 233 | 95.1 | 1 |
| Check out book | 214 | 87.3 | 2 |
| Use library's computers | 162 | 66.1 | 3 |
| Use restroom | 148 | 60.4 | 4 |
| Browse | 146 | 59.6 | 5 |

| **College library** |  | **% of *n*** | **Rank** |
|---|---|---|---|
| Use library computer | 182 | 74.2 | 1 |
| Study by myself | 167 | 68.1 | 2 |
| Check out book | 161 | 65.7 | 3 |
| Study with others | 159 | 64.9 | 4 |
| Use restrooom | 149 | 60.8 | 5 |

Table 5. What respondents value least and most about their bookstore and library experiences

| | **Least** | | | | **Most** |
| --- | 1 | 2 | 3 | 4 | 5 |
| --- | --- | --- | --- | --- | --- |
| The quality of materials | 0 | 6 | 20 | 52 | 167 |
| Helpful staff | 1 | 2 | 31 | 69 | 142 |
| Convenient hours | 3 | 5 | 26 | 90 | 121 |
| Access to computers | 17 | 14 | 28 | 54 | 132 |
| Convenient location | 4 | 9 | 47 | 100 | 85 |
| Comfortable chairs | 20 | 32 | 59 | 63 | 71 |
| Access of wireless Internet | 40 | 25 | 47 | 56 | 77 |
| As a place to be alone | 29 | 25 | 69 | 56 | 66 |
| As a place to be with others | 54 | 61 | 53 | 57 | 20 |
| Bargain items for sale | 85 | 59 | 45 | 28 | 28 |
| Availability of coffee | 121 | 53 | 36 | 17 | 18 |

# Title: Elementary School Students' Perceptions of school library and expectations of Library Space

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*This study main research purposes were to explore elementary school students' perception of school library, understanding elementary school students' experience of school library use and explore elementary school students' ideal library. Data for this study have been collected chiefly through semi-structured interviews and analysis of drawings. This study was targeted at mid-grade and high-grade students of elementary school. It is expected that understand the students' perception of library and provide a suggestion for improving library space.*

*Elementary school student; perception of library; idea library*


## Introduction

Students spend most of their time at school, so the school library is the one they visit the most. To encourage school children to make use of library, school library has to provide sufficient library resource, good reading environment, well-trained reading instructors and enough funds. Development of reading environment in libraries is the priority; designing an interesting and attractive environment where children are willing to enter will then lead them how to use library resource. The first impression on library is one of the major factors to affect children's feeling to library. However, how to build a library that children are fond of? This issue should be dealt with by taking children into consideration.

In Taiwan, the subjects of elementary school library studies were most refer to development of library or status of library such as software and hardware equipment of library, the library service item, library education, Library automation situation, information literacy, and the problem about library management. There were less concerned with library building and the experience or feelings of user usages. Besides, the investigate target are often to administrative staff or librarian, not regard to students. But library user education in elementary school is the most basic of school library education. To practice school library education for students, we not only need to know the perception of library of students, should understand their views and expectation on the library, then the library design will close to

students ' demand. If shorten the gap between student's needs and expectations toward the library and the real school library service, the students may like to use library more.

This research mainly explores elementary school student' perception of school library and their needs to the library space, so this study main research purpose is:
1. Explores elementary school students' perception of school library.
2. Understand elementary school students' experience of school library use.
3. Explore elementary school students' ideal library.

Because of above research purpose, the research question of this research is as follows:
1. What is the perception toward school library of elementary school students?
2. What kind of channel do the elementary school students get about the library concept?
3. What kind of service do elementary school students use in the library?
4. What feeling and perception of library use do elementary school students have?
5. What are the expectations of school library by elementary school students?
6. What a idea school library in elementary school students' mind?

## Literature Review

For children's service, Sannwald provide several key points of general design considerations: (1)The library space needs to attract and invite children to visit. (2)The interior scale of the children's space does not make children feel intimidating or oppressing, the ceiling levels must to be appropriate and the height of the book stacks and furniture needs to consider the children of all ages. (3)The different lighting levels and fixture types in children area would create a comfortable and cozy atmosphere and encourage reading. (4)An interesting and exciting display area can let children have an opportunity to show their own art work in the library, and a great opportunity to promote the library collections. (5)The craft area is a very important area for children of different ages. The dirty mark on the furniture and floors must easy to clean. (6)The family reading area can offer rocking or oversized chairs to allow parents to put children on their lags for reading stories. (7)Plan the media and electronic workstations for children (Sannwald,2007).

When the library draw up a proposal regarding a new program for children, aside from looking into subject related references, actual experiences working with related specialist and researchers, we should invite children and youth participate in the group planning. For example U.S.A. university of Maryland established an interdisciplinary team of researchers to work with seven children (ages 7 to 11) to design new digital library. The children can contribute their ideas and suggestions for digital library system and discussed with adults(Druin,2005); Another case like Aarhus public library of Denmark, in the cause of building a new library for children they hold an activity and invite 9 to 13 year old children to utilize the existing material to create a library model with their imagination (Helene,2007); In order to understand the library user uses satisfaction and any improvement to propose, Fisher got information from teenagers through questionnaire interview (Fisher,2003); The Denver children's library of U.S.A. spent three years to observe children's behavior in the library and the usage of the library, there were several problems in library space and arrangement of furniture. For a better service, the library invited children(under the age of 10) to discuss together and share their ideas of the perfect library which they think. These opinions reference as library space planning in the future (Sandlian & Walters 1991). While real listening to children what suggestion and hope of the library for them, we can just know the drop between the adult's design and children experience of library use.

In order to understand children's needs and expectations to the library, the researchers usually collect data and gather related materials through various research methods such as

questionnaire survey, interview, observation, drawing or other methods. Recently, there were two studies of elementary school library in Taiwan regarding what are students' favorites in the library and what is the appearance library they dreams of. As Kun-Yu Lai study, he adopted the qualitative research in a semi-structured in-depth interview and a participant observation research. He found that "the function of the school library lies not only on reading, circulating and searching, but also being a place for leisure and social activities." Students hope the library is a full fun and humorous place that offer very much comic books, computer, games etc....The environment also needs to be comfortable and enjoyable(Lai,2007). And in Tan-Yi Wang study, She used varied of methods including content analysis, participatory observation, constructive observation, environmental observation, semi-constructive interview, and children's painting analysis to collect the data. The dream library of student image is: (1)A neat, beautiful, comfortable environment with the pure and fresh air and it make users relax to reading. (2)The furniture and interior design is full of a variety of colors, sizes, and shapes. (3)Have a personal activity space with facilities, such as bed, computer, TV, etc… (4)Hi-Tech and convenient service, for example set up a passageway like slide, serve robots, etc… (5)Expect to be able to raise pets. (6) Have a restaurant and playing field (Wang,2007).

In a literature review, the researcher can found children have various imagination and suggestions to the library, these ideas are always very interesting and fancy. In this study, the researcher also want to know what a school library design is student's preference? Are there any differences and similarities between mid-grade and high-grad elementary school students? One of the purposes of this study include exploring student's school library of dreams.


## Method

### Study Approaches

Data for this study have been collected chiefly through semi-structured interviews and analysis of drawings. The semi-structured interview approach allowed children to speak out their true feelings about libraries. Questions were aimed at schoolchildren's impressions and ideas about libraries, their experiences with libraries, sources or channels through which they had learned about libraries, and their expectations of libraries, in order to understand their perceptions toward libraries. Simultaneously, as an attempt to acquire more complete and richer data, this study has also adopted the drawing analysis approach, setting "My Ideal Library" as the drawing theme and asking the children to sketch out what they thought a good library should be like, to supplement what they were unable to express with words during interviews.

### Study Samples

This study was targeted at mid-grade and high-grade students with experience of using the elementary school library. Teachers, volunteered workers, staff members, administrators and schoolchildren without experience were excluded. At the same time, since children with mental or physical handicaps would involve special considerations, they were also left out. By purpose-stratified sampling one class from each grade between the fourth grade and the sixth grad was selected to provide study samples. Data collection was carried out in two stages. The first was to request the students of two classes to draw the ideal library in their minds. 61 drawings were collected. The second stage was the interviews 8 students randomly

chosen from two classes (one class is the fourth grade, the other class is the sixth grade)and interviewed. (Table 1 and Table 2 show study sample statistics.)

Table 1 Sample of Drawing

| Grade | boy | girl | Subtotal | Total |
|---|---|---|---|---|
| 4 | 17 | 15 | 32 | |
| 6 | 16 | 13 | 29 | 61 |

Table 2 Sample of Interview Objects

| Grade | boy | girl | Subtotal | Total |
|---|---|---|---|---|
| 4 | 2 | 2 | 4 | |
| 6 | 2 | 2 | 4 | 8 |

## Results

### *Elementary School Student's Perceptions toward the School Library*

From the perspective of these schoolchildren, the function of a library was providing the environment for studying and relaxation. It was a place to visit to increase knowledge, look for information, borrow and return books, and explore unknown subjects. These children were also aware that a library had bookshelves, categorized extracurricular reading materials and picture books, bookmarks, desks and chairs, and a service counter. A small proportion of students had a deeper impression of the computers, printers, librarians, and direction signs. When inquired whether they remembered any activities conducted in the library, none of them could name a specific event, or simply had no idea. Yet when one of the activities was mentioned (a prize quiz, for instance), the children expressed that they had participated in that and were able to roughly describe the activity. This was probably due to that these schoolchildren had not been aware that the library had been responsible for the activity and having attended was their only memory.

### *Sources of Elementary School Student's Awareness of Libraries*

During interviews, most schoolchildren confirmed that their parents had taken them to a public library before they started elementary school. Some of them had visited the school library with classmates. When asked how they had found out about the library in school, some students answered that other people had told them about the library and so they started to use it, for example: "During the first grade, the teacher had scheduled reading hours and taken us to the library." "On the first day of the orientation, the teacher had told us about the library." "During the first grade I didn't know the school had a library because it was in the basement. I found out about the library in second grade. My cousin was in first grade and she told me about it." "I asked my older brother what facilities an elementary had and he mentioned library." Two of the students interviewed came across the library when they were familiarizing themselves with the new environment and decided to check it out. They did not get the information from other people. One of them made the comment, "Oh, I saw it. There was a sign. So I just went in with my classmate." Quite the contrary, there was also a student who had never been to a library. He related that he had been aware of this place called library during the first grade but had never gone in until the teacher mentioned certain activities

related to the library. He said. "I knew there was a library but I only passed by it and never went in. Later the teacher told us about a raffling event. So I went in there and discovered there were a lot of books that I would like to read."

With all the above combined, it is evident that the notion about the library mainly comes from revelation and introduction by parents, siblings, and teachers at school. Most elementary school children have had the experience of using a public library during kindergarten and are therefore no strangers to the school library. However, some schoolchildren have never had any contact with libraries and are not particularly interested, as a result. These children need guidance to learn to use the library. Therefore, the interpersonal network is an information channel that can play a rather significant role in helping children learn to use libraries.

### Elementary School Student's Current Use of the School Library

Interviews with the eight students showed that activities schoolchildren undertook in the school library included reading, borrowing and returning books, drawing and painting, doing homework, and occasionally attending events held by the library. They usually went to the library during the reading class or between classes. Some students expressed that breaks between classes were too short and the library was closed after school; therefore, they did not use the library often. These students commented, "The library is never open when I have time." These interviews also revealed that the higher grade the students were, the less frequently they used the library. Before the 4th grade, they have a reading class, so they use the library more often. By the time they were in 5th or 6th grade, they stopped visiting the library regularly. They had more schoolwork to tend to or had shifted their interests in other things, such as ball games. As a consequence, senior students did not use the library as frequently as their junior fellow students. In addition, the number of activities taking place in the library was also another factor that had an effect on students' use of the school library. Some students pointed out, "There used to be more activities. Now that nothing much happens there, plus I'm busier; I don't go (to the library) as often."

### Elementary School Student's Perceptions toward Using the School Library

These students didn't seem to have developed any particular sentiment toward using the school library from their experiences. For some students the library was a quiet, convenient (they can read or check out books they are interested in,) and fun place, while others regard it boring to be there. Some students, for instance, feel, "Elementary school kids are not that interested in books." Only the ones who were fond of reading were attracted to the library: "It's a great place because there are lots of books and I enjoy reading." The students were also requested to compare the school library and public libraries. The results indicated that most students preferred public libraries for their spaciousness, better facilities and bigger collections. The lighting was also better and there were more seats. Few students liked the school library more because it was in the basement and therefore quieter. The attitude of the librarians also played a part in this. Some students expressed, "I prefer going to the school library. The people in there are more friendly and the service is better!"

### Elementary School Student 's Expectations of the School Library

*Longer Opening Hours* Most schoolchildren visited the library during their reading class, between classes or after school. But the break between classes only lasted 10 minutes and the library was closed after school. Schoolchildren found it inconvenient and therefore hoped the library could extend its opening hours.

*Collections* When the children were asked if they would visit the library more often if the opening hours were extended, some responded, "Probably not. There aren't that many books there." Other said straightforwardly that the school library did not have enough books and they often were unable to find information they needed: "They don't seem to have enough books… There is nothing on Chinese calligraphy. I'm learning Chinese calligraphy." There were also students who thought the books in the school library were tool old and that could reduce students' interest in using the library: "All the books are old. I don't feel like going in there. I'll just buy the books I want to read." Apparently, these students thought the library should improve and regularly renew its collections, maintain the completeness of books, and keep them clean.

*Space and Facilities*
(1) Hardware Reinforcement: The library was not equipped enough. Apart from books, it lacked computers, printers and enough seats. When asked what facilities the library should enhance, the children replied, "Printers are important, too. If someone without a library card is unable to finish reading something, they can print it out. Or, some people get dizzy when reading books. If they can print out the information t in sheets, reading will be easier to read." "There should be computers for us to look for some information." "There should be a notebook computer at each seat." Some students expressed, "There should be one more counter for us to check out and return books. The counter is too small and it can get pretty crowded." This showed the students thought the counter space and the service staff were inadequate. It was slowing down the process of borrowing and returning books and creating human traffic jams.
(2) Appropriate shelf heights: Some students complained that the bookshelves were too tall and made it difficult to get some books sometimes. Some students suggested, "The bookshelves can be classified. Higher shelves are for senior students, while lower ones are for students in lower grades.
(3) Insufficient lighting: Lighting was another area the students thought needed improvement. For example: "The lights…I don't think are bright enough, not like in an Eslite Bookstore. There should be downlights or other lights that give a lot of light."
(4) Barrier-free facilities: Some students were concerned about the handicapped and thought the library should take handicapped people into consideration: "There should be facilities for blind people, such as offering information they can just listen to. Handicapped people can sit on a magic carpet to move at will and find books by themselves."
(5) Eating and drinking in the library: The children were aware that current regulations forbade eating and drinking in the library but still hoped they could have food and beverages in there: "What I really mean is if beverages and snacks are available in there, students will be more interested in coming here to study."

*Incentive Measures* Giving incentives could motivate schoolchildren to use the library. A student described the reason why he had enjoyed going to the library before: "There was a card to keep your reading record. After filling up a certain number of cards, you would be given an award certificate. I used to visit the library to borrow books between classes. The more I checked out, the more award certificates I got." "I like raffling because I could get presents." There were also ideas like: "If a student is given a piece of candy every time he or she goes to the library to study, everybody will be encouraged to visit the library more often."

*Librarians* These schoolchildren thought there should be people in the library to offer

assistance at any time, especially students in lower grades: "Librarians can walk around and see if anyone needs help." "Librarians should help those who are not familiar with the library. Students in lower grades could always use some help."

*Environmental Beautification* From the interviews it was evident that girls were more concerned about the appearance of the environment. A student expressed, for example: "The resting area could use some flowers and decorations and the children's area should have some cuter, fashionable decorative items." Some students thought having more green plants would be good for health: "Plant some trees and make it like we're in the forest." "I hope I can see green trees the minute I step out the library. It will be good for eyes." But there was also a student who did not care about the subject. He said he did not particular notice how the surroundings were furnished. What mattered to him was whether the library had the books he wanted.

*Exhibition Space* Some students thought the library should make space to exhibit artworks by students, for instance: "The works from our art class or the cards we make for Mother's Day or Father's Day can be hung up to show to everybody." Other students had different opinions: "The library should carry other people's journals for our fellow students to read."

*Separated Areas for Different Grades* Same as the results from other studies, senior students asserted that their space should be separated from that of junior students. When schoolchildren talked about the advantages of public libraries, they mentioned separation of space for adults and children was a good idea: "(In the adult area) it is quiet and people can rally study, whereas children would just be shouting back and forth without thinking for others." There were also students who thought senior students didn't have the need to use the library, so the space could just be left for junior students: "Students under the 4th grade take their reading class in the library, but senior students probably already have a lot of books in their classrooms so they can just read in the classroom."

### The Ideal Library in Elementary School Student's Minds

Drawings of the ideal library proved that schoolchildren were in fact not at all impractical in their ideas of what a library should be like. Most designs described what the school library currently lacked, such as computers, printers, the food and beverage zone and the multimedia area. As for the collections, most children specifically emphasized the "comic book" category and "computer game guides" to express their need of recreation. Some other children included air conditioners in their drawings; obviously hoping it could be cooler in the library.
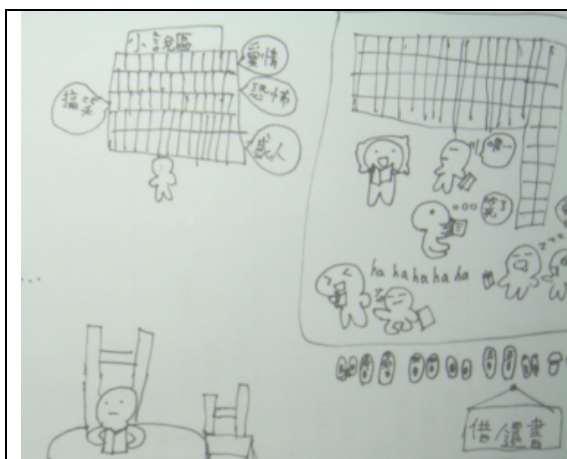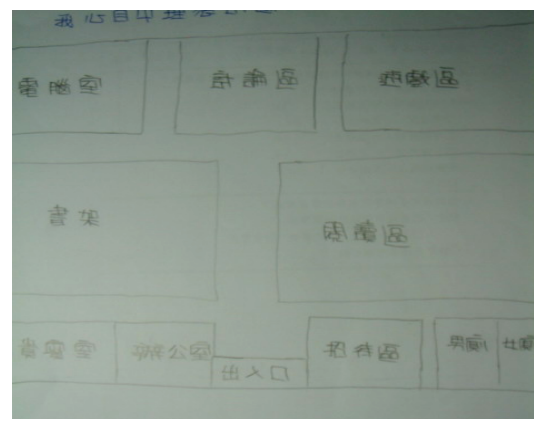
| Figure 1 | Figure 2 |

Figure 3



Figure 4

When divided according to their grade and gender, senior schoolgirls were noticeably more considerate and wanted to make sure other people could have their space, such as the offices, the reception room, the VIP room and the parent-child reading area. Junior students were more concerned about their own space and the room required for their interests, such as a handicraft area, a stationery area, a performance area, a swimming pool, a running track, etc. All students concurred on the necessity of basic library facilities, like the book area, the reading area and the service counter, Wooden floors also appeared in some of the drawings, probably because the school had specifically planned the "wooden floor" activity space and the students appreciated the idea. (Table 3 shows statistics of numbers of times various areas appeared in the drawings."

Table 3  Statistics of numbers of times various areas appeared in the drawings

| Library space allocation | Grade 4 (32 figures) | | Grade 6 (29 figures) | | All students (61 figures) |
| | Boy (17 figures) | Girl (15 figures) | Boy (16 figures) | Girl (13 figures) | Total appearance number of each area |
| --- | --- | --- | --- | --- | --- |
| Stack Area | 12 | 12 | 10 | 12 | 46 |
| Reading Area | 6 | 8 | 6 | 8 | 28 |
| Computer Room | 3 | 3 | 5 | 5 | 16 |
| Entrances/Exits | 2 | 0 | 6 | 7 | 15 |

| | | | | | |
|---|---|---|---|---|---|
| Circulation | 2 | 3 | 5 | 3 | 13 |
| Restaurant | 2 | 2 | 3 | 4 | 11 |
| Audiovisual | 2 | 1 | 3 | 2 | 8 |
| Wooden Floors | 1 | 4 | 2 | 0 | 7 |
| Restroom | 1 | 0 | 2 | 1 | 4 |
| Shoes Cabinet Area | 0 | 2 | 1 | 1 | 4 |
| Game Area | 1 | 0 | 1 | 2 | 4 |
| Office | 0 | 0 | 1 | 2 | 3 |
| Lounge | 0 | 0 | 1 | 2 | 3 |
| Copy Room | 0 | 0 | 1 | 1 | 2 |
| Arts/crafts Area | 1 | 0 | 0 | 0 | 1 |
| Discussion Room | 0 | 0 | 0 | 1 | 1 |
| Reception Room | 0 | 0 | 0 | 1 | 1 |
| VIP Room | 0 | 0 | 0 | 1 | 1 |
| Bulletin Board | 0 | 0 | 0 | 1 | 1 |
| Family Reading Area | 0 | 0 | 0 | 1 | 1 |
| Stationery area | 1 | 0 | 0 | 0 | 1 |
| Activity Area | 1 | 0 | 0 | 0 | 1 |
| Book Displayer | 0 | 1 | 0 | 0 | 1 |
| Swimming Pool | 0 | 1 | 0 | 0 | 1 |
| Running Track | 0 | 1 | 0 | 0 | 1 |
| Fountain | 0 | 0 | 0 | 1 | 1 |
| Only draw the library building not shown inside | 4 | 3 | 4 | 1 | 12 |

As for activities carried out in the library, aside from borrowing and returning books, some students also depicted people sleeping, swimming, watching movies, using computers, reading lying down, reading on chairs and buying food in the library.

Only in 12 out of all the drawings the library building was actually depicted and each one varied to a certain extent. A student imaginatively gave it the appearance of a library built in outer space (see Figure 5). There were also a castle-like structure (see Figure 7), a tree house (see Figure 8), and an individual house (see Figure 8). The architecture styles were quite different.



Figure 5



Figure 6

Figure 7

Figure 8
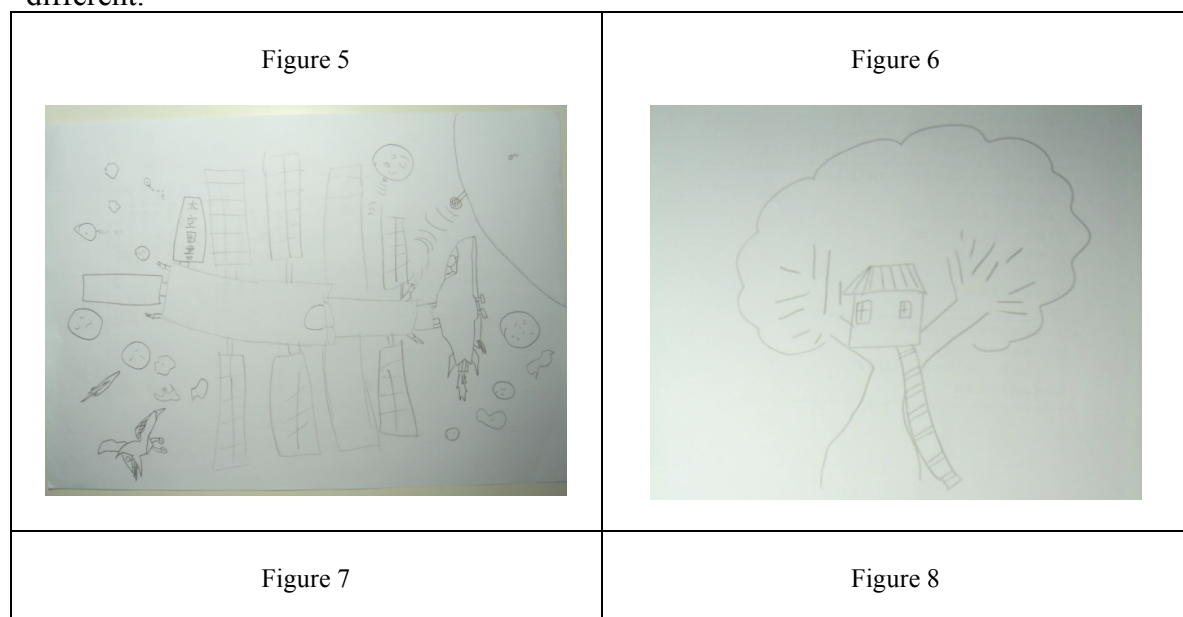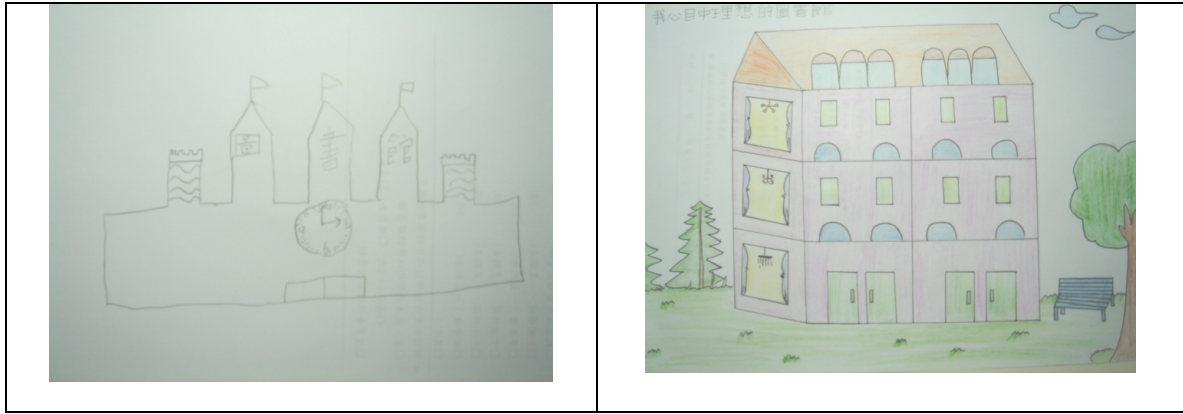
## Discussion

Data from the interviews and drawings showed that most schoolchildren had already had a basic concept about libraries. They were aware that a library was a place where they could read, borrow and return books, look for information and have certain recreation. The fact that some children had had their experiences with libraries before they started school signifies that some parents consider it important for their children to learn to use libraries at a young age. The schoolchildren's experiences with the school library didn't seem to make them very interested in it or expect much from it and they were not very clear about activities that had taken place in the school library. The interviews revealed that these schoolchildren did remember the activities they had attended but didn't know that the library had been responsible for these activities. They also thought giving incentives could motivate students to use the library. However, the more senior students were, the less frequently they used the library. The reason was, besides not having enough time during class breaks and the library's insufficient collections, senior students seemed to have developed a passive attitude toward the library. When they no longer had the reading class in the library with guidance from a teacher, students stopped visiting the library regularly.

In comparison, investigation of schoolchildren's expectations and opinions toward libraries in this study is more focused on the practical aspect, unlike in the Danish Aarhus Public Library case and the thesis by Wang Tan-Yi, in which the objects of experiment had a more entertaining and dreamlike imagination for libraries. The difference may have been caused by the environmental variation, the confidence the researched had in the researcher, the researcher's experience, analytical technique and differentiation in study samples. To perfect the content of research, the author of this paper will conduct further study in the two following directions:

1. More schoolchildren should be interviewed and the questions should be extended both in range and depth in order to obtain more detailed and richer data.
2. Results of interviews can be regarded as initial investigative achievements. A questionnaire based on the quantitative research approach should then be designed to survey schoolchildren's awareness and expectations of libraries. In the end, quantitative and qualitative data should be sorted out and arranged to produce a more complete report.

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# Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Students' Satisfaction with the Library, Familial Reading Environments, and Reading Attitudes in Structural Equation Modeling Analyses

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The main purpose of this study was to test the fit of model of the relationships among students' satisfaction with the library, familial reading environments and whose reading attitudes. Further, it tried to find out whether the familial reading environments and satisfaction with the library affect the students' reading attitudes, and then explored the direct, indirect and total effects between the students' satisfaction with the library, familial reading environments, and reading attitudes.

The participants of this study included 714 high school students (356 male, 358 female), and the findings suggested that (1) the theoretical model of students' satisfactions with the library, familial reading environments, and reading attitudes using Structural Equation Modeling was supported;(2) students' satisfactions with the library were in connection with their familial reading environments; (3) students' satisfactions of library and familial reading environments had a significantly positive effect on students' reading attitudes.

## Introduction

The TIMSS & PIRLS International Study Center (2007) released of the PIRLS 2006 results. PIRLS 2006 is a comparative study of student achievement in reading literacy conducted in 40 countries. The highest achieving participants in PIRLS 2006 represented different regions of the world geographically, including Eastern Europe (the Russian Federation, Hungary, and Bulgaria), Asia (Hong Kong SAR and Singapore), Canada (Alberta, British Columbia, and Ontario), Italy in Southern Europe, Western Europe (Luxembourg, Germany, the Netherlands, and Belgium (Flemish), and Scandinavia (Sweden and Denmark). Taiwan was much inferior to Hong Kong in reading literacy, which deserved our concern because reading literacy should be the essential ability of our children facing the international challenge and future vicissitude.

Children's interests and attitudes were main considerations in enticing children to enter the world of books. Reading attitude might be defined as a disposition that responds in a favorable or unfavorable manner in relation to reading (Swalander & Taube, 2007). Many studies showed that good reading attitude positively affects

reading behavior (Stokmans, 1999; Swalander & Taube, 2007), and that good readers have a more positive attitude than poor readers toward reading (WigWeld & Asher, 1984). The effect of reading attitude on reading behavior is mainly attributable to the effect of enjoyment aspect (Stokmans, 1999). Therefore, the familial reading environment and the school library environment to reading attitude could yield tremendous influence. McQuillan and Conde (1996) proposed that texts for pleasure reading or interest reading provided more flow. Fiction was more likely to produce flow than nonfiction, and texts which provided flow gave the reader personal or intellectual benefits.

Children who grew up in families with many books and whose parents spent a lot of time on reading and writing seldom develop problems with literacy in school (McQuillan & Conde, 1996; Snow, Burns, & GriYn, 1998). That is to say, a majority of reading problems falls upon children from poor families with little education (Snow et al., 1998). Some parents provide many opportunities for their children to develop a favorable attitude toward reading; others do not. Children are likely to have a favorable attitude toward subjects they find it interesting and dislike one that is not interesting. People around children generally influence their attitudes. Parents who enjoyed reading tended to pass these attitudes on to children, and influence the attitudes and behaviors toward reading of their children (Harris & Sipay, 1990; Purcell-Gates, 1996; Richards, 1991). Researchers have concluded, that the single most important factor for predicting reading ability is the number of books in the household (Swalander & Taube, 2007).

Programme for International Student Assessment (PISA) had shown that there are considerable differences in reading ability between students from high SES and student from low SES families (OECD, 2001). High attitude scores and good reading behavior are closely related to students having parents with a higher educational status, coming from a more culturally enriched familial environment and receiving more support for school work (van Schooten, de Glopper, & Stoel, 2004). In addition, having sufficient mental and physical resources were a requisite to the intention to engage in reading activities, so they could affect the attitude towards reading and reading behavior (Miesen, 2003). Worthy, Moorman and Turner (1999) investigated reading preferences and found the light materials (scary series books, comics, and magazines) that topped the list for every sub-group students. There was very limited availability of preferred materials in schools, so the most students obtained reading materials from purchased sources rather than from school libraries.

Netherland(2004)compared students and parents in Title-I and Non-Title I schools, and found that students and parents in Title I schools were less likely to read at home for enjoyment, use the public library, or read magazines and newspapers. Results demonstrated that students and parents in Title I schools, overall, read less than students and parents in Non-Title I schools, and reported having fewer books of their own and fewer educational materials at home.

The pattern of reading, as was known from the past, may not be the same as it today or in the future. Research in reading habits is needed to include current advancement in Information Communication Technology (ICT), where the technology has enabled reading to be more timely and somewhat non-linear by using devices such as computers, PDAs and wireless phones without the presence of any printed document. Karim and Hasan (2007) find that the web site was seen as an increasingly important reading source. So the resources equipment of school library could influence students' reading.

Another project designed by a high school librarian, Bliss, used a recorded reading

program and achieved impressive results. The seventh through twelfth grade students were required to spend one hour per school day in a reading lab. They became more confident as they learned that their slow reading was due to lack of practice, and their teachers reported that they had better academic performance.

Libraries are ideal places to find books and spend time in reading (Richards, 1991). Mean scores of students' attitudes toward the library and reading were significantly positive (Kreiser, 1991). Children with higher reading attitude scores attended more library programs and visited the library more often(Richards, 1991). In addition, significant differences exist between different types of reading materials, especially traditional reading materials and those on web sites (Karim and Hasan, 2007).

Therefore, it is important for students to develop positive reading attitude because it affects their reading behavior. And there is a lot of support for the assumption that children growing up in a literacy rich environment where a positive value is ascribed to literacy will develop a positive attitude towards reading, which in turn will lead to good reading ability and positive thoughts about themselves as well in the reading situation. Since the library has a good environment for reading, it is reasonable to assume that there may be some relationships between students' attitudes toward the library and their reading attitudes.

The purposes of this study were threefold: (a) to test the fit of the theoretical model of the relationships among students' satisfaction with the library, familial reading environments and whose reading attitudes; (b) to find out whether the familial reading environments and satisfaction with the library affect students' reading attitudes; (c) to explore the direct, indirect and total effect between the independent and dependent variables.

## Method

### *Participants*

Participants in this study were 781high school students from Nantou Shiu Kuang High School in Taiwan. However, only 714 (356 male, 358 female) complete the questionnaires. The composition of the participants was as follows: 528 junior high school students ( 74% ), and 186 senior high school students ( 26%). The mean age of participants was 14.7 years old, falling between 13 and 18 years old. The researchers went to each class to administer the questionnaires at a prearranged time. The time for finishing answer the questionnaire was about 20minutes.

### *Instrumentation*

The questionnaire used in this study composed four sections, including demographics information, reading attitudes, familial reading environments, and students' satisfaction with the library. For demographic information section, students were asked to report their gender, age, and to provide information regarding their mother and father's occupation and educational status. For reading attitudes, students completed 17 items which includes happy reading (6 items), active reading (5 items), reading harvest (3 items), and reading leisure (3 items). For familial reading environments, students completed 17 items including discussion and sharing with others (5 items), subscription to books and periodicals (5 items), reading books and periodicals (5 items), value reading (2 items). For students' satisfaction with the library, students completed 17 items including library service (5 items), using

education (1 items), resources equipment (7 items), and library environment (4 items).

The instruments adapted from two sources: Hsieh (2003) and China Tsing Hua University Books Intelligence Committee (2004), but some revisions were made to meet the needs of this study. Each item was rated on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Cronbach's $\alpha$ coefficients of satisfactions with the library, familial reading environments, and reading attitudes were .89, .90, and .93.(see Table 1)

## Statistical Analyses

Using the SPSS and the AMOS software, the data were analyzed by several statistical methods stated below.

Item analyses, factor analyses, and Cronbach's $\alpha$ coefficients were used to exam reliability and validity of the questionnaires on the pretest. Mean, standard deviation, and correlation were used on the 12 observed variables. The analyses were conducted on covariance matrices, and the solutions were generated on the basis of maximum-likelihood estimation. Confirmatory Factor Analyses examined the theoretical model (Figure 1), which designated that the items for each factor loadings on their respective latent variables. And further, it tried to find out whether the familial reading environments and satisfaction with the library affect the students' reading attitudes, and then explored the direct, indirect and total effect between the independent and dependent variables.

## Model Evaluation Criteria

In SEM, the degree of correspondence between any particular model and the data can be assessed with the use of several goodness-of-fit indexes. We evaluated models using the comparative fit index (CFI) (Bentler, 1990; Hu & Bentler, 1999), three Tucker-Lewis index (TLI)(Bentler & Bonett,1980), the goodness-of fit index (GFI), the root-mean-square error of approximation (RMSEA) (Hu & Bentler, 1999), the normed chisquare (NC) (Jöreskog, 1970) and the critical N(CN) (Hoelter, 1983; Yu, 2006). According to the study by Hu & Bentler (1999), value of .95 or above for the CFI, GFI and value of RMSEA of .06 or small indicate good fit. In addition, value of above 1.0 and below 5.0 for the NC(Yu, 2006) and value of 90 or bigger for the TLI (Bentler, 1990) indicate good fit.

Table 1
*The item number and Cronbach $\alpha$ Coefficients of latent variables and observed variables*

| Observed variables | Cronbach $\alpha$ | Total item numbers | Observed variables | The numbers of items |
|---|---|---|---|---|
| Satisfactions with library | .89 | 17 | Library service | 5 |
| | | | Using education | 1 |
| | | | Resources equipment | 7 |
| | | | Library environment | 4 |
| Familial reading environments | .90 | 17 | Discussion and share | 5 |
| | | | Subscription books | 5 |

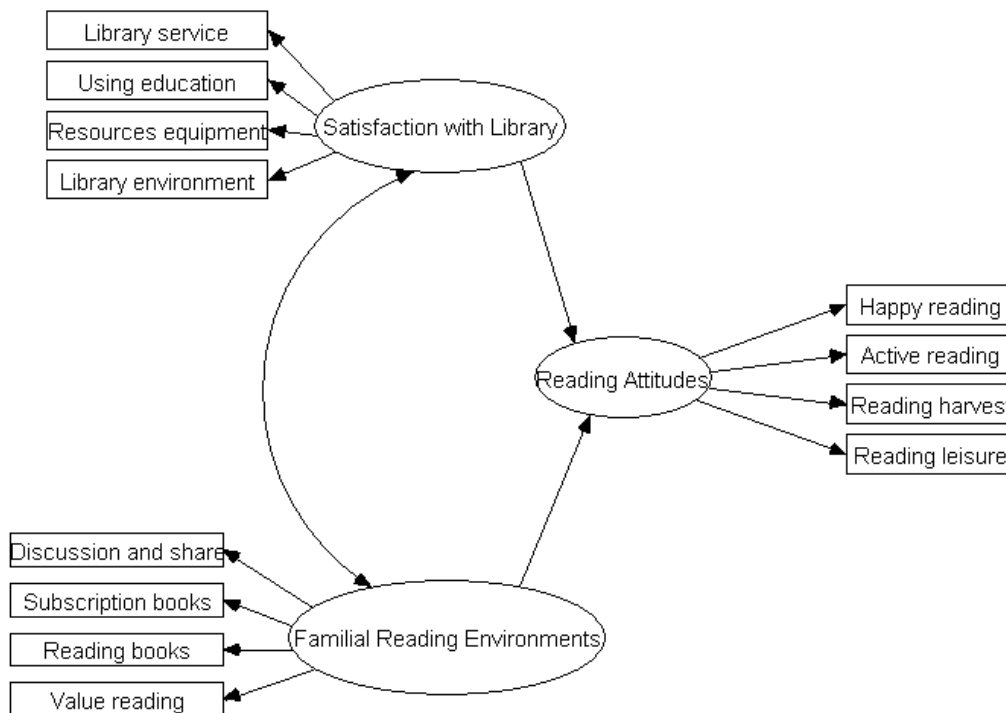| | | | and periodicals | |
|---|---|---|---|---|
| | | | Reading books and periodicals | 5 |
| | | | Value reading | 2 |
| reading attitudes | .93 | 17 | Happy reading | 6 |
| | | | Active reading | 5 |
| | | | Reading harvest | 3 |
| | | | Reading leisure | 3 |



*Figure1* The theoretical model of satisfaction with the library, familial reading environments and their reading attitudes

## Results and Discussion

*Descriptive Statistics*

Means, standard deviations, and correlation for twelve observed variables are displayed in Table 2. Because the maximum likelihood estimation procedures used in this study can produce distorted result when the normality assumption is severely violated (Curran, West and Finch, 1996), the normality of each variable was investigated in terms of its skewness and kurtosis. In addition, the skew of this study was from 0.05 to 1.1 and the kurtosis was from 0.04 to 1.2. Curran et al (1996) proposed that absolute values of skew index greater than 2.0 and kurtosis index greater than 7.0 indicate serious departures from normality. So, the normality assumption of all the variables was well met. The results of the correlation analyses showed that all variable are highly correlated.

Table 2

*Mean, standard deviation, and correlation coefficients of 12 observed variables*

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.happy reading | 1 | | | | | | | | | | | |
| 2.active reading | .75*** | 1 | | | | | | | | | | |
| 3.reading harvest | .64*** | .65*** | 1 | | | | | | | | | |
| 4.reading leisure | .57*** | .61*** | .42*** | 1 | | | | | | | | |
| 5.discussion and share | .26*** | .33*** | .24*** | .32*** | 1 | | | | | | | |
| 6.subscription books and periodicals | .31*** | .35*** | .27*** | .38*** | .74*** | 1 | | | | | | |
| 7.reading books and periodicals | .16*** | .22*** | .15*** | .25*** | .65*** | .70*** | 1 | | | | | |
| 8.value reading | .22*** | .26*** | .26*** | .24*** | .47*** | .50*** | .47*** | 1 | | | | |
| 9.library service | .22*** | .21*** | .29*** | .18*** | .20*** | .21*** | .22*** | .29*** | 1 | | | |
| 10.using education | .20*** | .18*** | .23*** | .15*** | .21*** | .17*** | .19*** | .24*** | .59*** | 1 | | |
| 11.resources equipment | .27*** | .26*** | .31*** | .18*** | .20*** | .21*** | .21*** | .26*** | .74*** | .62*** | 1 | |
| 12.library environment | .22*** | .20*** | .25*** | .15*** | .11** | .11** | .12** | .20*** | .67*** | .53*** | .77*** | 1 |
| M | 2.97 | 2.84 | 3.12 | 2.61 | 2.28 | 2.34 | 2.46 | 2.69 | 3.14 | 3.22 | 3.15 | 3.31 |
| SD | .60 | .64 | .63 | .78 | .75 | .78 | .69 | .70 | .63 | .85 | .65 | .63 |
| skewness | -.34 | -.19 | -.41 | -.05 | .19 | .07 | -.12 | -.34 | -.83 | -.84 | -.74 | -1.12 |
| kurtosis | -.09 | -.43 | -.32 | -.74 | -.73 | -.70 | -.45 | -.04 | .72 | -.13 | .21 | 1.23 |

**p<.01 ; ***p<.001

### Fit statistics for Theoretical Model

The model that was tested is presented in Figure 1. Presented in Table 3 are the fit indices for measurement model and theoretical model. The indices of the theoretical model showed a good fit. Although the chi-square was significant, the NC, GFI, RMSEA, TLI, CFI and CN indicated good fit. The factor loadings for the reading attitudes were .85 for happy reading, .89 for active reading, .73 for reading harvest, and .67 for reading leisure. The satisfactions of library were .81 for library service, .68 for using education, .93 for resources equipment, and .82 for library environment. The familial reading environments were .83 for discussion and share, .89 for subscription to books and periodicals, .77 for reading books and periodicals, and .57 for value reading.

In terms of measurement model, the factor loading and measurement errors of the12 observed variables showed statistical significance (*p*<.001). The results meant

that the questionnaire items could represent its latent variables. That is this questionnaire items have a good validity. The composite reliabilities of the three latent variables of reading attitudes, satisfaction with the library, and familial reading environments were .94, .92, and .93, which indicate ideal composite reliabilities. These accorded with Bagozzi and Yi (1988) who proposed that ideal composite reliability($\rho_c$) must be above .60. The average variance extracted index($\rho_v$) was .79, .75, and .78, which accorded with Fornell and Larcker (1981) who proposed that the index must be above .50. That is, the indicators for the latent variables explained the variance far more than was explained by the measuring error, so the indicators could represent the latent variables.

In terms of structural model, the satisfaction with the library and the familial reading environment latent constructs were positively correlated with one another ($r$=.27, $p$<.001). The standardized regression weights from the satisfaction with the library to the reading attitude latent constructs was .24 ($p$<.001), and the familial reading environment to the reading attitude latent constructs was .36 ($p$<.001). The squared multiple correlation of endogenous variable, reading attitude, was .23. The results represented that the structural model of the theoretical model had a good fit.

Table 3
*Fit indices for measurement model and theoretical model*

| Index name / model | The fit of the judgement value | Measurement model A (satisfaction with the library) | Measurement model B(familial reading environments) | Measurement modelC(reading attitudes) | theoretical model |
|---|---|---|---|---|---|
| $\chi^2$ | Non significant (p>.05) | 13.018 (df=2, p=.001) | 2.126(df=2, p=.345) | 16.512(df=2, p=.000) | 162.806(df=51, p=.000) |
| GFI | >.95 | .991 | .998 | .989 | .963 |
| SRMR | <.05 | .017 | .008 | .022 | .049 |
| RMSEA | <.06 | .088 | .009 | .101 | .055 |
| TLI | >.90 | .980 | 1.000 | .969 | .969 |
| CFI | >.95 | .993 | 1.000 | .990 | .976 |
| NC | 1<NC<5 | 6.509 | 1.063 | 8.256 | 3.192 |
| Hoelter | >200 | 329 | 2010 | 259 | 301 |

*The effect from independent to dependent variable*

The direct effect for the satisfaction with the library to the reading attitude was .24, indirect effect was .10, and the total effect was .34. That is, the more the satisfaction with the library and the better familial reading environment students have, the better reading attitudes students gain. The direct effect for the familial reading environment to the reading attitude was .36, indirect effect was .08, so the total effect was .43. These findings are consistent with Kreiser's (1991) study in which student attitudes toward the library was positively correlated with student attitudes toward reading. In addition, Harris, and Sipay (1990), Purcell-Gates (1996), Richards (1991) have similar findings that parents who enjoyed reading tended to pass these attitudes on to children.

# Conclusion

In conclusion, several research questions were addressed in this study, and the principal findings suggested that (1) the theoretical model of students' satisfactions with the library, familial reading environments, and reading attitudes using Structural Equation Modeling was supported;(2) students' satisfactions with the library were in connection with their familial reading environments; (3) students' satisfactions of library and familial reading environments had a significantly positive effect on students' reading attitudes.

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## Biographical Notes

Since 1998, I have served in Shiuh kuang Senior High School to be a teacher. The working experience offered me a good chance to explore the reading attitude of student. In 1995 I was admitted by National Taiwan Normal University to pursue a master degree in Health Education. I developed several professional interests in sexual education, action research. And then, in 2006 I was admitted by National Changhua University of Education to be a student of PhD program and major in education.

## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by us and that the paper was conceived and written by us alone and has not been published elsewhere. All information and ideas from others is referenced.

# School librarians' anticipated support for students with SEN: using a Modified Grounded Theory Approach

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*The purpose of this study is examining some suggestions on how school libraries can be involved in Special Needs Education in a helpful way. The Modified Grounded Theory Approach is used as the method for this study. In my analysis I focus on the change in perception of 19 school staff members with respect to changes in the school library function and factors for these changes. Based on the result the school librarian's anticipated four supports are suggested as follows: providing suitable materials that take into account students' situation, searching study by team teaching, supporting students' self-affirmation by sympathetic understanding, and educational support encouraging students' socialization.*

*students with SEN, school librarian's support, Modified Grounded Theory Approach*

## 1 Introduction

### 1.1 The purpose of this research

The purpose of this research is pursuing some concrete suggestions on how school libraries can be involved in Special Needs Education in a helpful way. I used the Modified Grounded Theory Approach to analyse the following themes: (1) To clarify how school stuff members who don't evaluate students' academic levels, for example, nurse teachers, school counsellors, and Special Educational Needs Coordinators (SENCO)**,** change their perceptions and gain a new recognition of school libraries through the contacts with school librarians. (2) To clarify the causes of the changes of their recognition. By clarifying these points, it should be highly attainable to obtain useful suggestions as to the roles of school librarians' support for students with SEN, and the important functions of school libraries.

According to the Ministry of Education, Culture, Sports, Science and Technology (MEXT)'s survey[1] in 2002, the ratio of students who have remarkable difficulty in learning and behaviour in public elementary and junior high schools is 6.35%. In January 2004, as a part of the process of the supporting system for those students, the guideline (the experimental idea) was completed[2] and in April 2007, Special Needs Education was inserted in the School Education Law for the first time. In this new system, "Team support" is advocated as a whole school approach. However, people who are concerned with special

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[1] MEXT. (2002). Tsujo no gakkyu ni zaisekisuru tokubetsu na kyoikutekishien wo hitsuyotosuru jido seito ni kansuru zenkoku jittaicyousa kekka.
http://www.mext.go.jp/b_menu/public/2002/021004c.htm. (access 2008/1/15).

[2] MEXT. (2003). *Tokubetsu shien kyoiku no arikata ni kansuru cyousakenkyu kyoryokusya kaigi.* Kongo no tokubetsu shien kyoiku no arikata ni tsuite (saisyuhokoku) 2003.3.28.
http://www.mext.go.jp/b_menu/shingi/chousa /shotou/018/toushin/030301a.htm. (access2008/1/15).

needs education do not have any ideas on how to utilize the school library as a team support tool.

Some school counsellors (SC) and nurse teachers pointed out that students with SEN move to the counsellor room, the nurse's room and the school library. However, a SC in junior high school mentioned that they don't seem to use those places with exactly the same feelings[3]. Under these circumstances, what kinds of characteristics do school libraries have?

In Japan, the School Library Law and the School Library Standard stipulated the roles of school libraries: (1) Contribution to the development of educational processes, fostering cultivation as one of the educational assisting systems, (2) Offering places where students are able to acquire the ability of utilizing information and train themselves to be life-long learners. Furthermore, the report of the 15th Central Educational Council in 1998-The future minds for the future generation, in the crisis of lost heart-mentions that it is vital to develop a favourable environment of school libraries in order that students can relax and enjoy reading there like the oasis of their hearts.

Then, how do school staff members actually recognize school libraries? By investigating this theme, it should be possible to clarify how school librarians are able to contribute to Special Needs Education, as one of the team assisting systems within the whole school function.

According to the survey on who school librarians can consult with easily in daily life, they enumerated nurse teachers, school counsellors, and Special Needs Educational Co-ordinators (Matsudo, 2006). They are staff members who do not evaluate students' academic levels. These staff members are inclined to be involved with students with SEN.

## 1.2 Terminology

### 1.2 .1 Students with SEN

According to the concept of Special Needs Education proclaimed by the Ministry of Education, students with Special Educational Needs (SEN) are impaired students, including LD, ADHD, Asperger's syndrome. However, the UNESCO's concept of it includes students who can't catch up with school life due to various reasons of impediment. As a result, the focus of this research includes not only LD, ADHD, and Asperger's syndrome, but also students who refuse to attend school, or can't adjust themselves to classes, reported by homeroom teachers and recognised by all teaching stuff members as such.

### 1.2 .2 Teachers who don't evaluate student's academic levels

Teachers who don't evaluate students' academic levels share some common characteristics. They are not in charge of grading or academic achievement, but they take care of students' sensitive and weak points. In this research, nursing teachers, school counsellors, and Special Needs Education co-ordinators are categorised as those teachers.

In addition, Special Educational Needs Coordinators (SENCO) are in charge of planning and management for school commission or training programs, contacting with affiliated organisations, and having consultations with parents, etc., to promote Special Needs Education. What is required of them is the objective stance to establish Special Needs Education. It is not the actual teaching in itself. However, under the current dual assignment system, homeroom teachers are frequently in charge of Special Needs Education and hold some special knowledge for it. As the result, they are appointed as Special Needs Education

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[3] School counselors and nurse teacher's comments on the interview that covered the relationship between students with SEN and school library. These interviews were done from 2004, July to 2005, July.

co-ordinators too. It was the case in this research. Therefore, when they were interviewed, they were asked to respond as Special Needs Education co-ordinators.

## 2 Methodology

### 2.1 The-analytically-focused-person

#### 2.1.1 The Range

The-analytically-focused-person is one of methodological terms originally proposed in M-GTA to facilitate coding and interpretation of data. In the Modified Grounded Theory Approach, the paradigm of the sampling is basically stipulated by research and analysis themes. The analysis theme of this research is to clarify stuff member's process of recognition on changes within the school library system and the causal factors which contributed to these changes in the recognition. Because of the premise that the interaction between school librarians and those staff members could have influenced the changes, this research limited the range of the analysis to the staff members who have personal contacts with school librarians.

#### 2.1.2 The Process of Selection

It was necessary to confirm whether school librarians had personal contacts with staff members and identify who they were. For this reason, I set up the three conditions: (1) School library education was firmly established at school by having a school librarian who can concentrate on library work, even though he or she is a part-time worker. (2) At the time (June 2004), the arrangement of Special Needs Education co-ordinators and SC was under way to promote the support system for it. (3) Although the main focus of this analysis is public schools, some private schools were included. The reason was to analyze opposite examples as required by the Modified Grounded Theory Approach.

Concerning the condition of each school library, I referred to Japanese journal like, "*Gakko Toshokan* (School Library)", "*Konnichi no Gakko Toshokan* (Today's School Library)", and "*Gakutoken News*". As for self –governing communities' supporting system for Special Needs Education, the material investigated and compiled by the Research Team of Special Needs Education on Self- Governing Communities was available. I used School Directory 2004version for school data. I sent a letter to each principal in 11 cities like, Tsuruoka (1), Tsukuba (1), Saitama (1), Mitaka (2), Tokyo, Setagaya (1), Ichikawa (3), Urayasu (4), Funabashi (2), Osaka (1), Okayama (1). I had an interview with a school librarian. When I asked whether they had consulting partners or not, all of them answered "yes". Table 1 shows who they are.

Table 1 School Librarian's Consulting Partners                    multiple answer

| Consulting Partners | Administ- rators | Teacher Librarians | Homeroom Teachers | Nurse Teachers | School Counsellors | SENCO |
|---|---|---|---|---|---|---|
| N | 4 | 3 | 9 | 9 (7) | 7 (7) | 6 (5) |

( ) The number of analytical focused person

The positions of school librarian's consulting partners were varied, but teachers who don't evaluate students' academic levels were included. I asked to have an interview with them through their supervisors. Among these candidates, I selected 19 stuff members who

consented to be recorded while they were interviewed as the focal persons of analysis. They were 7 nurse teachers, 7 SC, 5 Special Needs Education co-ordinators. These 19 stuff members frequently use a library and have interactions with a librarian. Therefore, since the scope of analysis was limited to the focal persons of analysis who had favourable relations with librarians, it should be kept in mind that the results reflect a certain limited range of the focal object within the whole support system.

## 2.2 Collecting data
### 2.2.1 The Semi-structured interview
In order to reconstruct the interviewee's subjective theory about the theme of the issue under study I used semi-structured interviews. These interviews were held between July, 2004 and July, 2005. As a listener, I interviewed 19 participants who were analytically focused persons for an average of 45 minutes. The semi-structured interview retains the open quality of an unstructured interview, but is controlled by a list of questions and topics to be covered (Neitzschman, L.& Neitzschman,H.2002)

I set the semi-structured interview guide, which consists of open questions that interviewees can reply to freely. By using an interview guide for all interviewees, comparative data analysis will be available. In this study, I asked mainly with respect to the process of change in perceptions on school library and the factors related to this change in recognition , e.g. " first impression on school library", " present impression", " view point of the changing", and " reason of the changing". Furthermore, I also asked "personal opinion of school library support for students with SEN".

### 2.2.2 Participant observation
Acquired data assumed the proof of semantic interpretation through participant observation, which referred to two kinds of data. Firstly, the observation focused on two points as follows; 1. How do school library users that include students with SEN use the school library? 2. How does a school librarian support them? This observation was conducted before interview time. In this observation, I asked a casual query on using library situation for students with SEN with permission of school librarians. I also took pictures of students using the library situation and school libraries layouts as records. Secondly, I took a video on students' library situation as a school librarian's view in December, 2002.

## 2.3 Analysis
### 2.3.1 Modified Grounded Theory Approach
This study aimed to elicit the 19 school staff's recognition change and factors involving the school library resulting from the interaction with a school librarian. Therefore, I adopted the Grounded Theory as a methodology. There were three reasons to adopt this for my study. Firstly, it could be available to clarify the process of recognition change factors. Secondly, the theory could be presented by formulating concepts. Thirdly, this theory is available to be added to correction by practitioners who work in this field.

Furthermore, considering the data analysis, I used a Modified Grounded Theory Approach (M-GTA) which a Japanese sociologist Kinoshita, Yasuhito[4]（2003）developed from the original Grounded Theory Approach proposed by Glaser, B. G. and Strauss, A.L .in 1967 following their dispute in the early 1990s on form procedures. Especially, Glaser (1992) emphasized descriptive accuracy and conceptualized abstract of time, place and people

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[4] Kinoshita, Y. Ph.D. Professor and Dean  Faculty of Sociology  Rikkyo (St. Paul's) University, Tokyo

against Strauss's publication in 1990. However, he did not show the coding method concretely.

GTA is a qualitative approach to generate a theory from data, and succeeding the basic characteristic of Glazer and Strauss original approach, M-GTA employed a coding method of its own. In order to code from data, Kinoshita adopted using an "analytical worksheet" and analyzing the block of meaning context. An "analytical worksheet" consists of concept name, concept name's definition, variation (data) and theoretical notes. Furthermore, concepts are regarded as the minimum unit of analysis to confirm the researcher's interpretation and emerging categories.
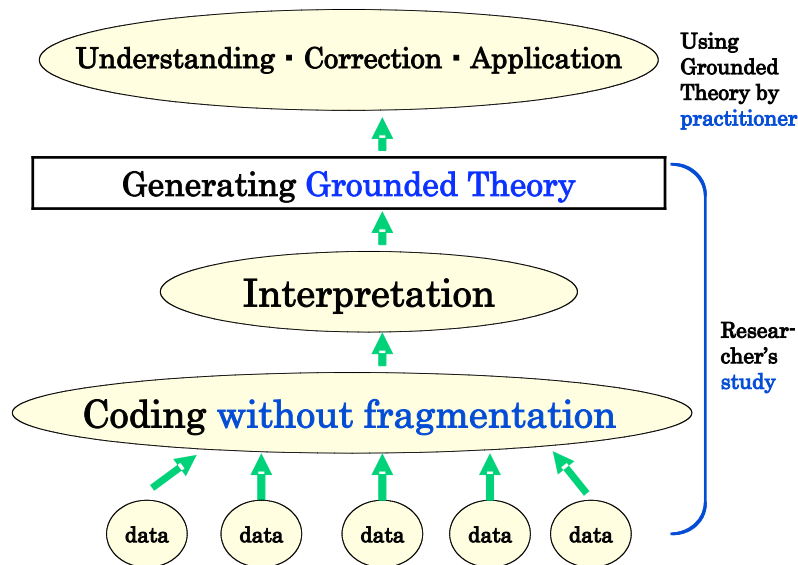
Figure1: Modified Grounded Theory Approach concept
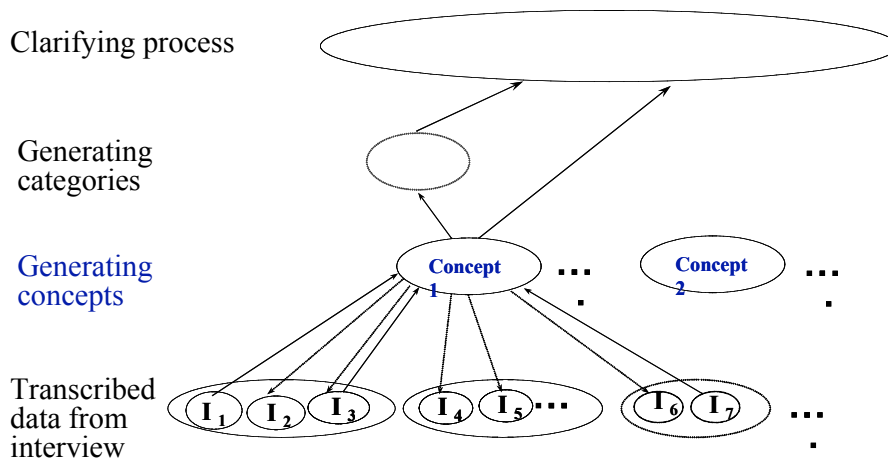
Figure2: Modified Grounded Theory Approach model
Kinoshita,Y. (2003).Grounded Theory Approach no Jissen. Tokyo: Kōbundō, p.184.

### 2.3.2   M-GTA Analyzing Procedures

M-GTA analyzing procedures are as follows:
(1)  To read all data.
(2)  To pick up one person's data, that includes a variety of topics. To focus on specific remarks and to fill in the variation section of the "analyzing worksheet 1".

(3) To check similar remarks on the same topic. If you find similar remarks, fill them in the same variation section of the "analyzing worksheet 1". If you don't find similar remarks in the variation section, it won't be a concept.

(4) To avoid arbitrariness, you should check not only similar remarks but also remarks of an opposite opinion. If you find opposite opinions, fill them in the theoretical notes.

(5) To generate the concept and name and define it. Consider the similar remarks in the variation section and opposite remarks in the theoretical notes of the "analyzing worksheet 1". Regarding the other concepts, the same method applies.

(6) To examine the relationship between individual concepts according to the aspect of the analyzing theme, including the causal relation. The category can explain two or more concepts as one settlement. The process is to be able to explain the flow of the movement clarified according to the analyzing theme.

Table2: Analyzing worksheet

| concept name | |
| --- | --- |
| concept name's definition | |
| variation (data: block of meaning context) | • _____<br>• _____<br>• _____<br>(you can add similar remarks from data) |
| Theoretical notes | _____<br>_____ |

Kinoshita,Y. (2003).Grounded Theory Approach no Jissen. Tokyo: Kōbundō, p.188.

In this research, I got supervision from the member of Modified Grounded Theory society at the stage of the research plan, the concept generation work, and the analysis result. The analysis was conducted originally in Japanese and shifted to English.

## 3  Result

### 3.1 Explanation of the results

Results shown here based on M-GTA centers on interpretation of qualitative data. First, the overall flow of the conceptual diagram, which shows the result of the analysis, is explained using concept names and category names. Here, < >, represents concept name, gothic font represents category name and ( ) represents analytically focused person by numbers. As the abbreviations, n. is used for school nurse teachers, sen is used for special educational coordinators, and, sc is used for SCs.

### 3.2 Overview

Table 4 shows the list of processes, categories and concepts, and figure 3 is the overview which shows the process and factor of change in recognition of school library. As shown in the analysis procedure in 2.3.2, this overview was created through making categories based on the relationship between concepts and then analyzing relationship between these categories.
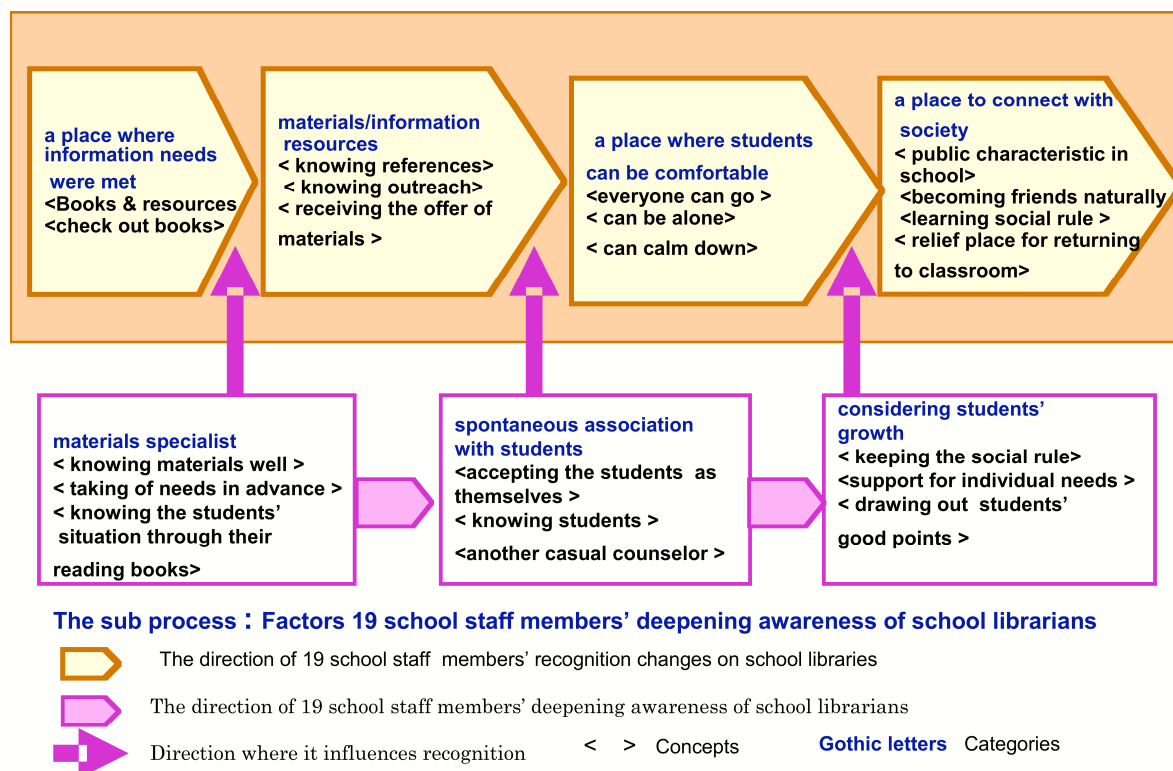
Figure 3: the process and factor of change in recognition of school library

These nineteen school staff members who do not evaluate students' academic score level have deepened their awareness of the school librarian's function by their interactions with school librarians. The sub process of their deepening awareness of school librarians influenced the process of change in their recognition of school library. Specifically, these school staff members used to have the impression of school library as a place where information needs were met when they had no relationship with the school library. In this category, it included two concepts of < there are books > and < check out books >.

However, they began to use school library after having opportunities to accompany students with special educational needs. Then, after receiving school library services, they began to regard the school librarians as materials specialists. In this category, it included three concepts of < knowing materials well >, < taking of needs in advance > and < knowing the situation of students through their reading books>. Also, they regarded school library as a place that provides materials/information resources. In this category, it included three concepts of < knowing references>, < knowing outreach> and < receiving the offer of materials>.

Next, these nineteen school staff members were attracted school librarian's spontaneous association with students with special educational needs. In this category, it included three concepts of <accepting the students as they are>, < knowing students > and <another casual counselor >. Thus, these nineteen school staff members began to recognize the school library as a place where students can be comfortable, in addition to school library's original function. In this category, it included three concepts of<everyone can go >, <can be alone> and <can calm down >.

Furthermore, these nineteen school staff members noticed school librarians' stance of considering students' growth. In this category, it included three concepts of < keeping the social rule>, <support for individual needs > and < drawing out of students' good points >. Moreover, these nineteen school staff members recognized the school library as not only a

place where students can be comfortable but also as a place to connect with society through the school librarians' stance of considering students' growths. In this category (a place to connect with society), it included four concepts of < public characteristic in school>, <becoming friends naturally >, <learning social rule > and < relief place for returning to classroom>.

## 4 Discussion

### 4.1 School library's characteristics through perception change result

The analyzing result of the process of the perception change of these school staff members towards the school library and the sub-process of the attitude change towards school librarians who bring in these effects has been shown. From this result, the three characteristics of school library that these school staff members noticed are as follows:
Firstly, the school library services carried out by school librarians are advice on books, reference and outreach. These services also enrich the functions of school library. This recognition indicates that these school staff members recognize school librarians as materials specialist.
Secondly, the school library is also a healing place where students can refresh their mind naturally. The school library is a place where everybody can go. One can be alone or talk to others if he/she wants. It is a place where people can adjust their social relations. This recognition connects to the stance of having a spontaneous association with students. This point is indicated by the recognition of school librarians' <accepting student as they are > by these school staff members.
Thirdly, the school library is also a place where students can communicate with others and in this way foster their sociability. The school library is a place where students can develop their social skills by activities like borrowing, returning books. Through relations with those who are <becoming friends naturally>, school library can be a <relief place for returning to classroom>. This recognition indicates the recognition of school librarians' response to each student with SEN accordingly and their stance of considering students' growth.
For example, school librarians offer materials that correspond to the students' level of developmental in research work. They also make students have a sense of responsibility by giving them jobs to do in the school library. By looking at the results, school library support through librarians can be expected from the following three respects. Figure 4 shows the school librarians' anticipated support.

### 4.2 School librarian's anticipated support

#### 4.2.1 Providing suitable materials, which take into account a students' situation
By contact with visitors who come to the school library, librarians can find a different aspect of students that teachers and other school staff members cannot find. This enables librarians to understand students' conditions and needs, thus they can offer appropriate materials that fit the individual development and challenge of students. In this way, librarians can support students' development. Knowing what a student in bullying or a truant student worries about, librarians might be able to offer materials to solve their problems according to his/her inside needs. Concerning this point, this research illustrates school librarians' anticipated support as offering appropriate materials by understanding students' potential

needs in advance. The characteristics of librarians of <knowing materials well>, <knowing students> and <taking of needs in advance > make it possible.
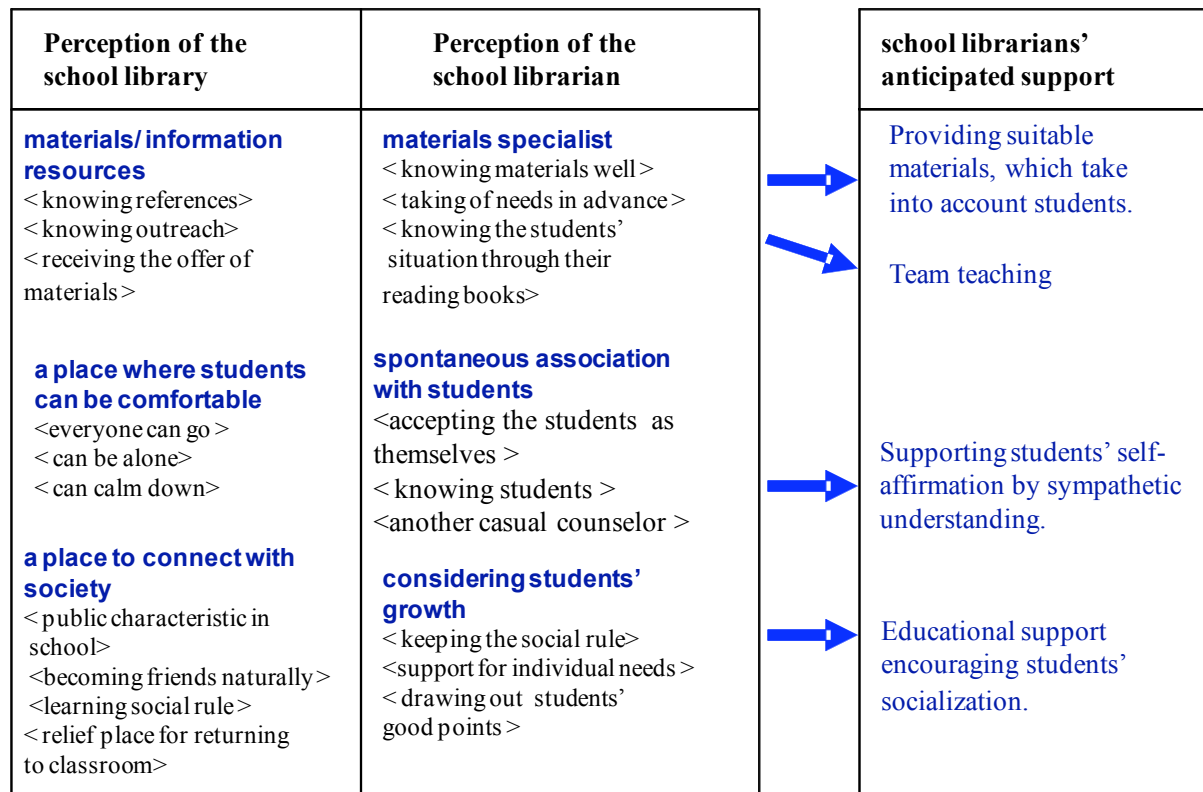
| Perception of the school library | Perception of the school librarian | school librarians' anticipated support |
|---|---|---|
| **materials/ information resources**<br><knowing references><br><knowing outreach><br><receiving the offer of materials > | **materials specialist**<br><knowing materials well ><br><taking of needs in advance ><br><knowing the students' situation through their reading books> | Providing suitable materials, which take into account students.<br><br>Team teaching |
| **a place where students can be comfortable**<br><everyone can go ><br><can be alone><br><can calm down> | **spontaneous association with students**<br><accepting the students as themselves ><br>< knowing students ><br><another casual counselor > | Supporting students' self-affirmation by sympathetic understanding. |
| **a place to connect with society**<br><public characteristic in school><br><becoming friends naturally><br><learning social rule ><br><relief place for returning to classroom> | **considering students' growth**<br><keeping the social rule><br><support for individual needs ><br>< drawing out students' good points > | Educational support encouraging students' socialization. |

Figure 4    School librarians' anticipated support

### 4.2.2  Searching study by team teaching

School librarians can support for students with SEN as team teaching partners of teachers. Especially, they can support students who do not know what to do when they do searching study (besides tell them how to use the library). Through individual support by librarians, students with SEN learn a searching skill step by step and solve problems by themselves.

Kuhlthau (2004) points out that a pedagogical approach that can develop adequately all people's needs and ability to utilize library is necessary. A five-level model is shown for the Mediators who support information search and users education. The fifth level is "counselor". "Counselor" aims to help learners solve problems by themselves, while attending learners and having an overall interaction with them.

### 4.2.3  Supporting students' self-affirmation through sympathetic understanding

When facing students, school librarians  <accept students as they are > and offer service from students' perspectives. As an extension, only listening to child students' trivial consultation and complaints can blow away students' gloomy feelings. Miyashita and Ishikawa(2005) define "one's own place" that students can feel mental peacefulness, be treated in their true light, and be treasured their self-value (p. 784). When we look at the results from this definition, it can be found that librarians' sympathetic understanding support of students helps school library to become students' own place. However, since there is someone at the place, students start to utilize school library for multiple purposes.

In addition, in the research field of library information science, discussion on school librarians' counseling mind is seldom heard as far as I know. However, the seven SCs whom

I interviewed are flexible about school staff members' involvement of students' matters and think it as school resource. In fact, from the result of the concept of <knowing students>, it is indicated that school librarians can also become advisors of school nurse teachers and SC since they know about students' other aspects that are different from in the classroom.

### 4.2.4  Educational support encouraging students' socialization

Through communication with friends that they get to know in the library and librarians, can develop their own social nature. In fact, school staff members are anticipating school librarians' educational support encouraging students' socialization.

Furthermore, Murray(2000) proposes that in the area of offering support, school librarians can help students obtain self-confidence by giving them roles. This study supports Murray in this point. However, this study shows support in terms of encouraging students' socialization from the concepts of  school librarians' <keeping the social rule>, <support individual needs> and <drawing out of students' good points>

## 5  Conclusion

By using a M-GTA, this study shows the process and reasons of the perception change about the school library through the view of 19 school staff members who are involved in students with SEN. The previous research on the relation of special needs education and school library, for example, Murray's research shows the possibility of contribution by connecting with the functions of school library. This study points out school library's expected support in terms of cooperation with school staff members. Especially from the viewpoint of relations with students with SEN, the school library can be perceived as a place to connect with society.

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*Biographical Notes*

Hiroyo Matsudo has an M.E. from Tokyo Gakugei University [March 2004] and a Ph. D. in library information science from University of Tsukuba [January 2008].
Her research interest is in special support for students with special educational needs in school libraries. She has been working as a school librarian for 8 years.
 She received the school library award on her unpublished dissertation by the Japan School Library Association (2008).

## Statement of Originality

# Information Seeking and Use by Grade 9 Students: More and Less Savvy Than You Might Think

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*This paper presents the findings of a survey administered to 939 high school freshmen (Grade 9, approximately 14 years old) in five schools in the greater Seattle, Washington (USA) area. Responses indicate that students use a wide range of information resources, including books, the Web, and other people, but underutilize subscription databases and periodical literature. Furthermore, there appears to be some confusion over what these databases contain, their utility, and credibility among young people. This paper also introduces a novel survey technique using Personal Response Systems (PRS) for data collection, and suggests that similar researcher-practitioner collaborations can enhance evidence-based practice in teacher-librarianship.*

## Introduction

Can we expect secondary students to be able to find a relevant, credible magazine or journal article which supports a given classroom assignment? The answer may surprise you. The structure and content of the Web places an increasing cognitive load on young people, who are thought to lack the skills necessary to make distinctions of authority, currency, objectivity, or accuracy (Agosto, 2002; Bilal, 2001; Fitzgerald, 2005; Williamson, McGregor, Archibald & Sullivan, 2007). The proliferation of information resources and young peoples' preference for digital media create renewed interest in source selection and credibility assessment, as well as the need for new skills and instructional practices that are rooted in the unique qualities of online interactions.

Competence in the literacies of the information age is critical to being able to participate in a networked world. These competencies include the ability to access, evaluate and use information, as well as manipulate digital technologies and media. Levin and Arafeh (2002) report what they term the "widening digital disconnect" between students and their schools, which includes access to information technologies in education, as well as the capacity of teachers to educate tech-savvy students. Reports suggest that students are increasingly sophisticated in their use of technology; however, this does not mean they are information or media literate.

In order for librarians and educators to successfully prepare students to be effective users of ideas and information, they need to have a firm grasp of what students already know,

as well as what they do not.  This type of contextual knowledge—being aware of what your students can and cannot accomplish prior to instruction—is critical to information literacy interventions.  The tendency of the popular press to over- as well as under-estimate the capacities of today's students, the "Google Generation", further creates the opportunity for misconceptions to invade the practice environment (British Library/JISC, 2008).  This paper will describe an action research study undertaken to enhance the contextual knowledge of six high school practitioners by surveying a large sample (939 participants) of their incoming 9$^{th}$ grade students.  In the process of examining the survey data, this paper will address the following questions:

1.     What are emerging trends in students' information seeking and use?

2.     How do students perceive the trustworthiness of different types of information?

3.     What strategies do students employ when seeking different information sources?

4.     How do students perceive the instruction they receive in information seeking and use?

The findings of this study will inform the information literacy instruction efforts of high school educators, and add to the growing body of knowledge on youth information behaviour.  This paper also introduces a novel survey technique using Personal Response Systems (PRS) which was found to be reliable as a data collection tool, and particularly engaging for informants.  We further hope this project will inspire additional researcher-practitioner engagement, and extend existing efforts to promote evidence-based practice in teacher-librarianship.

## Literature Review

*Our Emerging Understanding of the Google Generation Scholar*

        Variously referred to in the research literature as the 'Net Generation, Generation Y, Millenials, the Google Generation, and Digital Natives, the students born after 1989 have known of and used the Internet and World Wide Web for most or all of their years in school.  As the first groups of these students head to college and university, and the Internet further saturates the educational context, educators are still struggling to understand and adapt to these digital scholars.  Sweeny (2006) characterizes these students as impatient, multitasking, highly demanding, experimental and experiential; he suggests that these students have not only different attitudes and expectations toward research, but also different skills and "literacies."  Marc Prensky (2001a; 2001b), the technologist who coined the term "Digital Natives," suggests that, as a result of their immersion in interactive, media-rich technologies since birth, "…today's students think and process information fundamentally differently from their predecessors."  While this assertion is supported anecdotally by practitioners and in the media (e.g. Isreal 2005; Lippencott 2005; McHale 2005), research to support the proposition of a qualitative difference in student cognition based in longitudinal analysis is lacking, particularly outside the United States.

        The British Library's (2008) recent report on the "researchers of the future" looks on these claims with a critical eye.  While the report acknowledges that students prefer documents on the Web to print resources, and generally feel comfortable and confident with their use of search engines, it raises the question of whether these are generational attributes, or indications that students are merely early adopters.  As the Web has penetrated the

academy, and more research materials are provided online, the report finds that professors and library practitioners are also adopting the "power browser" style (also referred to as "horizontal information seeking", p. 10) of widely scanning content to satisfy their information needs.  Furthermore, the report suggests young peoples' apparent facility with computers "disguises some worrying problems" such as the inability to evaluate information effectively, or use appropriate search strategies (p. 12).  Recent studies of U. S. college students and Australian secondary students confirm some of these concerns.  Williamson, McGregor, Archibald and Sullivan (2007) report that Australian secondary students are cavalier regarding plagiarism and the authority of sources, and rely extensively on the free Web for information.  Gross and Latham (2007) found that college freshman who perform poorly on tests of information literacy tend to overestimate their abilities; that is, students think they are much better information seekers than they really are.

*Information Seeking in School*

A growing body of literature has addressed how secondary grade students seek and use information for classroom assignments (Fidel et al. 1999; Gordon 1999; Heinstrom 2006; Herring 2006; Julien 1999; Kuhlthau 1991; Limberg 1999; Todd 1999; Williamson, McGregor, Archibald and Sullivan 2007).  These studies find that students encounter significant challenges to resolving their academic information needs.  These challenges may be grouped in two broad categories: 1) challenges related to information systems design, specifically information retrieval tools; and 2) challenges related to information seekers' skills and attitudes, including cognitive, metacognitive and affective capacities for addressing information problems.  The former category documents students' struggles with search tools, including Web-based search engines and card catalogues, which often do not effectively support student search behaviours and knowledge structures. The latter category includes students' ability to manage search tasks, compose effective search statements, and evaluate information sources for quality and relevance.  Nearly all studies of information seeking behaviour at school are qualitative; that is, they engage a small number (<30) of participants to develop rich portraits of localized phenomena, but fail to describe broader trends in student behaviour.  Interestingly, these qualitative studies tend to refute the notions put forward by proponents of the Digital Natives hypothesis in emphasizing students' struggles with formal information retrieval systems over the interactive, interpersonal systems with which they appear more facile.  This paper looks to expand the body of evidence in youth information behaviour by adding some quantitative measures to the rich, descriptive work of other scholars in this area.

## Method of Empirical Investigation

The Libraries in Small High Schools Project (funded by the Institute for Museum and Library Services) focused on six high schools undergoing organizational and pedagogical reform in the greater Seattle area. Integrating theoretical work with empirical-practical engagement over a 3-year span, the goals of the project included: 1) developing an understanding of the issues faced by teacher-librarians (TLs) during the reform process; 2) assisting TLs in aligning their practice with the information needs of a changing school; and 3) identifying best practices to support adaptation.  To address the project goals, the research team elected to use a triangulated, qualitative and quantitative approach, developing a comprehensive perspective of the work life of teacher-librarians, the libraries they work in, and their place in the school community.  By systematically collecting data from all six sites using identical instruments, protocols, and time frames, the research team was able to build

case studies and also perform cross-case analyses. Teaching and learning in a small schools environment requires that the library and librarian provide a rich infrastructure of information skills instruction, reading and literacy advocacy, information and technology services, and resources management. The underlying assumption is that effective library and information services are essential for the successful education of adolescents in small high schools. This paper draws on a portion of the quantitative data set collected during the final year of the project.

*Participants*

Six high schools from the greater Seattle area were recruited to participate in this study. The six high schools represent the diversity of the region, including geographic, cultural and socioeconomic groups. Two urban schools, three suburban schools, and one rural school compose the sample (see Table 1 for a summary of descriptive statistics for each school).

*Table 1: Descriptive Characteristics of Participating High Schools*

| School | Type | # of Students* | % Qualify for Reduced Lunch | % Transitional Bilingual | Library Staff (FTE) | District Size (# High Schls) |
|--------|------|---------------|----------------------------|-------------------------|---------------------|------------------------------|
| A | Rural | 1,660 | 13% | .1% | 3 | 1 |
| B | Suburban | 845 | 48% | 15% | 3 | 1 |
| C | Suburban | 2,166 | 45% | 12% | 2 | 2 |
| D | Suburban | 1,617 | 20% | 2% | 2 | 5 |
| E | Urban | 1,076 | 16% | 6% | 1 | 10 |
| F | Urban | 1,361 | 32% | 12% | 1 | 10 |

* Data from Washington OSPI October, 2006

A survey instrument was developed to gain insight into students' information behaviours, their views of the school library, and their use of various media for personal and academic tasks (see Appendix for questions and administration protocol). The final instrument incorporated input from the six participating TLs, and was designed to provide both the TLs and the research team with a rich empirical data set for designing policies and practices. The survey relied on two different types of administration systems—the Personal Response System (PRS) equipment that the project supplied to each school, and an online survey tool, Catalyst *WebQ*, developed by the University of Washington. The 16 question survey was administered by the TLs at five of the six research sites, and responses were gathered from 939 high school freshman (Grade 9, approximately 14 years old).

*Personal Response Systems (PRS) and Online Surveys*

The PRS has a number of advantages which make it a unique data collection tool, and a more secure and confidential device for youth informants. The PRS is a means of gathering survey or focus group responses quickly, easily and anonymously with minimal risk. Wireless infrared devices which resemble a television remote control transmit answers to a receiving unit connected to a personal computer. The entire system is highly portable, easy to setup and use, and adapts to a variety of data gathering instruments. PRS has the ease and convenience of a web survey, but without the need for research sites to supply Internet access or computers. Supplying the technology to perform these data gathering sessions to our informant schools helped ensure uniform and equitable participation and minimized challenges that may have resulted from differences in technological capability and resources.

By contrast, the Catalyst *WebQ* system allowed for survey respondents to be more independent in completing the survey. However, its reliance on Internet access and connectivity proved challenging for some schools. Like the PRS System, the UW Catalyst System also enabled gathering data from students anonymously. Later in this paper we discuss the data gathered using these two systems, and analyze the survey systems in terms of response rates, reliability, and user affordances.

*Survey Administration*

TLs were asked to administer the survey to 9th graders at their respective schools in order to implement the survey in a way that was most appropriate to each local school context. After training, TLs administered the survey or instructed teachers in how to conduct the survey. The survey was completed by students during their 9th grade orientation course, advisory periods, or other scheduled visits to the library. Five of our six sites participated in the student survey. The survey provided a rich set of quantitative data to triangulate our earlier findings regarding the information behaviour of students observed in the library. Site #6 did not participate in the survey due to the departure of the TL at the beginning of the third year of the project (August 2006) when the survey was administered at the other sites. Response rates per school (based on total 9th grade enrolment) ranged from 36% to 66%. Data was collected from the TLs by the research team and analyzed using SPSS 14.0. The following table reflects survey responses received from the five participating research sites:

*Table 2: Descriptive Characteristics of Survey Participants*

| School | Type | # of 9th Grade Students* | # Survey Participants | Percent | Students with Internet Access @ Home? | |
|--------|------|--------------------------|-----------------------|---------|------------|---------|
| | | | | | Frequency | Percent |
| A | Rural | 413 | 273 | 66% | 222 | 87% |
| B | Suburban | 269 | 168 | 62% | 138 | 86% |
| C | Suburban | 542 | 195 | 36% | 160 | 84% |
| D | Suburban | 415 | 159 | 38% | 107 | 70% |
| E | Urban | 404 | 144 | 36% | 133 | 92% |
| **Total** | | | 939 | | 760 | 84% |

*Latest available data estimated from Washington OSPI total enrolment, October 2006

**Findings**

Results of the survey revealed some interesting findings, some of which push against widely-held conceptions of teenage information seekers. We organize our presentation of the survey data around the research questions:

• What are emerging trends in students' information seeking and use?

• How do students perceive the trustworthiness of different types of information?

• What strategies do students employ when seeking different information sources?

• How do students perceive the instruction they receive in information seeking and use?

## Emerging Trends in Students Information Seeking and Use

Our survey found that students are online in high numbers and in a wide variety of places. 84% of students reported accessing the Internet at home; this is higher than recent estimates of nationwide access among young people, but consistent with recent upward trends in access (Levin & Arefah, 2002, Lippencott, 2005). 100% of students responding reported accessing the Internet either at a friend's house, school, or the public library. 38.5% of students responded that the place they were most likely to access the Internet, aside from their own home, is the home of a friend. This suggests that Web surfing for young people is a social affair, and may be intertwined with other social activities that occur in children's rooms and homes. Libraries composed the vast majority of the remaining access, reminding us that both school and public libraries play an important role in providing access to electronic information, both for academic tasks and personal enrichment. Table 3 summarizes these results.

## Table 3: Internet access

| i. Do you have internet access at home? | | |
|---|---|---|
| | Frequency | Percent |
| Yes | 760 | 84.0 |
| No | 145 | 16.0 |
| Total | 905 | 100.0 |
| ii. Where else are you most likely to access the internet? | | |
| | Frequency | Percent |
| Friend's house | 359 | 38.5 |
| School | 271 | 29.1 |
| Public library | 189 | 20.3 |
| Other | 113 | 12.1 |
| Total | 932 | 100.0 |

## Perceptions of Utility and Trustworthiness of Information Sources

Students report that they are not entirely blind to issues of information quality and credibility in selecting resources. Rather, they suggest through their survey responses that they are more sceptical and discerning than many adults give them credit for. While 48% indicated they use the Web most often to finish their homework, only 32% feel it is the most trustworthy source available to them.

Despite access to a wide variety of information sources and formats, students are still willing to use information resources they do not trust, in part because of convenience and ease of use. This lends further credence to qualitative findings that motivation and "satisficing" are important factors in students' information behaviour. In interviews, teachers report using many of the same resources and strategies that students use, largely due to constraints on time, access, and the perception that the quality of "free web" resources is sufficient for the task at hand (Meyers, in press).

Periodical literature was reported to be the least useful and least trustworthy choice among five formats. This finding suggests that either students do not distinguish among the various types of magazines and journals, or simply have not been instructed in the value of periodicals for relevant, up-to-date, and reliable information. In discussing these findings with students and educators, it became clear that "magazines" are often stereotyped as less credible and useful for schoolwork because of the "worst cases" salient in the minds of users (e.g. National Enquirer or The Sun instead of Newsweek or The Economist). We also found that using terms such as "periodicals" or "journals" did not seem to dispel this confusion.

*Table 4: Use and trust of information sources*

| i. Which information source do you use most to finish your homework? | | |
|---|---|---|
| | **Frequency** | **Percent** |
| **Websites** | 432 | 48.2 |
| **Friends and family** | 218 | 24.3 |
| **Books** | 169 | 18.8 |
| **Radio, TV, movies** | 55 | 6.1 |
| **Magazines or newspapers** | 23 | 2.6 |
| **Total** | **905** | **100.0** |
| ii. Which information source do you trust the most? | | |
| | **Frequency** | **Percent** |
| **Books** | 323 | 36.5 |
| **Websites** | 281 | 31.8 |
| **Friends and family** | 129 | 14.6 |
| **Radio, TV, movies** | 93 | 10.4 |
| **Magazines or newspapers** | 59 | 6.7 |
| **Total** | **932** | **100.0** |
| iii. Which information source do you trust the least? | | |
| | **Frequency** | **Percent** |
| **Radio, TV, movies** | 301 | 34.8 |
| **Websites** | 173 | 20.0 |
| **Friends and family** | 149 | 17.2 |
| **Magazines or newspapers** | 127 | 14.7 |
| **Books** | 114 | 13.3 |
| **Total** | **864** | **100.0** |

*Information Seeking Strategies*

While students report they use search engines often, they do not use the Web exclusively. Students report consulting a wide variety of information sources for homework and personal information seeking, including interpersonal sources and mass media. When asked how they go about finding Websites, nearly 80% reported using a search engine (Google, Yahoo!, MS Live, or similar). This is not a surprising finding. However, we found that the role of library websites and librarian-selected online materials and tools in guiding students was less than our practitioners had hoped.

Although all schools in this survey provided an array of vetted, full-text periodical databases, students did not report using these to find periodical literature. Over 75% of students report they would search elsewhere for magazines and newspapers, bypassing the library website and periodical databases. It is unclear whether students do not recognize that these databases contain full-text magazine articles, or whether they find other access points to this content easier to use. Either way, students appear to underutilize these databases.

Library websites were infrequently reported as a starting point for information seeking (<40% of book searches, <11% of magazine searches, <4% of web searches). While the schools in our study used the district, school or library website as the default homepage, our observational data confirm that students often bypassed these starting points and went directly to Google or other search engines. Schools which had particularly well designed library websites fared no better than those without. This result may change with instruction, but the survey results suggest that grade 9 students are not accustomed to using institutional portals to scaffold their information search. The responses to our survey are detailed in the three tables below:

*Table 5: Where would you go to find a website?*

|  | Frequency | Percent |
|---|---|---|
| **Search engine** | 699 | 79.4 |
| **Periodical databases** | 90 | 10.2 |
| **Library website** | 34 | 3.9 |
| **Other** | 57 | 6.5 |
| **Total** | **880** | **100.0** |

*Table 6: Where would you go to find a book?*

|  | Frequency | Percent |
|---|---|---|
| **Library website** | 359 | 38.2 |
| **Search engine** | 197 | 21.0 |
| **Bookstore or newsstand** | 145 | 15.4 |
| **Amazon.com** | 96 | 10.2 |
| **Other** | 112 | 11.9 |
| **Total** | **909** | **100.0** |

*Table 7: Where would you go to find a magazine article?*

|  | Frequency | Percent |
|---|---|---|
| **Search engine** | 357 | 38.0 |
| **Bookstore or newsstand** | 184 | 19.6 |
| **Periodical databases** | 117 | 12.9 |
| **Library website** | 95 | 10.1 |
| **Other** | 154 | 16.4 |
| **Total** | **907** | **100.0** |

## Students Perceptions of Instruction

In the final questions of the survey, students were asked to describe the assistance teacher-librarians provide in terms of gaining access to three information sources: websites, books, and magazine articles. The questions were phrased as historical ("has a librarian ever taught you...") to elicit students' perceptions of their instruction, not to assess their actual facility in finding materials, or to document actual instruction patterns. Table 8 illustrates the students' responses to these questions, which were framed as yes/no queries.

Overall, students strongly associated their instruction in finding books (74.2%) and websites (60.4%) with teacher-librarians. Not so with magazine articles: only 28.8% of students recall having been instructed in finding periodical content. This strong reversal in student perceptions regarding magazine/periodical instruction is particularly striking when combined with findings concerning periodical use and trustworthiness documented above.

*Table 8: School librarian instruction*

| i. Has a school librarian ever taught you to find a website? | | |
|---|---|---|
|  | **Frequency** | **Percent** |
| **Yes** | 479 | 60.4 |
| **No** | 314 | 39.6 |
| **Total** | **793** | **100.0** |
| **ii. Has a school librarian ever taught you to find a book?** | | |
|  | **Frequency** | **Percent** |
| **Yes** | 534 | 74.2 |
| **No** | 186 | 25.8 |
| **Total** | **720** | **100.0** |
| **iii. Has a school librarian ever taught you to find a magazine article?** | | |
|  | **Frequency** | **Percent** |
| **Yes** | 169 | 28.8 |
| **No** | 418 | 71.2 |
| **Total** | **587** | **100.0** |

*Methodological Findings:  PRS as a Research Tool*

This paper introduced a unique method of collecting survey data: the personal response system (PRS).  While these tools are traditionally used in formative assessment routines in progressive K-20 contexts, particularly post-secondary lecture courses, we found that they may also contribute to the development of evidence-based practice in school libraries.  In this case, we also used these devices to gather reliable data for academic research.  PRS, relative to other survey administration techniques, may also provide specific benefits in terms of using survey data for action research and evidence-based practice.

Research on survey methods have found online survey administration to provide significant benefits.  Online surveys lower costs, provide greater sample sizes, and offer greater convenience to both researchers and participants (Schmitt, 1997).  In recent years, online surveys have been acknowledged as valid and reliable techniques for data collection, and furthermore have the added benefit of reducing some self-presentation bias. One of our schools elected to use an online administration, while four others administered the identical instrument using the supplied PRS system.  This provided our research team with an initial test situation to explore the relative merits of PRS administration.  To confirm that responses to the survey provided via PRS were equivalent to online surveys, the research team compared the set of online responses using a Web-based administrative system provided by the University of Washington (Catalyst WebQ) to the responses provided by PRS.  Table 9 illustrates the comparison between online and PRS administration for the final three questions of the survey.  The consistent trends in response to these questions show that the method of survey administration did not bias student response.

*Table 9: PRS vs Web Survey, Questions 14-16*

|  |  | Has a librarian ever taught you how to find…? | | |
| --- | --- | --- | --- | --- |
|  |  | Website? | Book? | Magazine article? |
| **PRS** | **Yes** | 61.3% | 73.3% | 29.5% |
| **N=701** | **No** | 38.7% | 26.7% | 70.5% |
| **Web survey** | **Yes** | 65.1% | 82.2% | 32.9% |
| **N=146** | **No** | 34.2% | 17.8% | 65.8% |

PRS appears to provide reliable data collection for surveys compared to online techniques.  Furthermore, it offers the added benefit of automated analytics, instantly available for viewing by the administrator and participants.  The PRS systems used in this study permitted teacher-librarians to see student responses aggregated and graphed within moments of student submission, either question-by-question or in summary form.  After the survey was administered, TLs could discuss the results with the students, thus creating a boundary object for discussing information behavior concepts, and a rich teaching opportunity.  The survey was administered at the class level (25-30 student groups), thus classroom teachers could also participate in this teaching opportunity with the TL.

Finally, the PRS device provided tremendous incentive to participate in the research process. TLs and the research team observed a great deal of interest in the devices and their function, as well as an eagerness on the part of students to engage with the survey and information behavior concepts.  Participating in the research process empowered the students, who showed genuine enthusiasm at having their opinions gathered and discussed.  In this

way, data collection for evidence-based practice provided direct benefits to the informants, as well as an incentive to the TLs to act on the data they collected.

## Discussion

Let us return to the question posed in the introduction to this paper: can we expect secondary students to be able to find a relevant, credible magazine or journal article which supports a given classroom assignment? The findings of this survey suggest that such a search is not likely to be successful. While students appear to have ready access to the web, and show signs that they are more sceptical of digital media than educators and other scholars think they are, this does not mean that they employ the best resources in their research, or that they are facile at retrieving a wide range of resource types. Students report using library portals as a starting point for their search for books (38%) more often than other types of information resources, but this finding is not to be taken as encouraging. Overall, we found that library portals account for little of the information retrieval activities of students, unless such use is proscribed by the assignment.

The findings related to periodical literature are distressing as they suggest three important and related challenges: 1) students infrequently utilize subscription databases for seeking periodical content; 2) students do not perceive periodicals as trustworthy sources; 3) students do not perceive that they have been taught how to access and use periodical literature. As one of the most relevant, scholarly, and timely resources available to libraries, databases are arguably the "must have" portion of any school library collection, right after a solid fiction collection. In many ways, such databases are far superior to the dated (and expensive!) collections of expository non-fiction texts collecting dust on many library shelves. While the teacher-librarians in our study schools heavily emphasized the use of database collections in instruction, it is unclear whether students grasp the advantages they present over other formats. From our survey findings and our prior observations of library activity, a number of questions may be raised: how readily can students distinguish between the "free web" and subscription databases? Do students recognize the diversity and quality of resources present in these databases? How can teacher-librarians, educators, and information providers (such as eLibrary, ProQuest, Grolier, etc.) simplify the process of finding and using vetted periodical literature? While the survey results provide no clear solution to these combined challenges of underutilization, misperception, and inadequate instruction, this paper identifies that these are related problems in need of further research.

One approach to working on these problems is the development of a culture of practitioner research, facilitated by collaborative partnerships with academics and the proliferation of research tools and instruments that can be quickly and easily incorporated into practice. This project attempted to take a step in this direction, by supplying teacher-librarians with data collection devices that were easy to use and engaging for students. Further research on practitioner methodologies are required to confirm the validity of PRS as a research instrument. Our initial work in this area may inspire other researcher-practitioner collaborations.

### Limitations

This paper presents data gathered from 939 students in the greater Seattle, Washington (USA) area. The sampling frame is not meant to represent all students, nor even

the grade nine population of the United States, thus we are cautious in generalizing from these findings. Furthermore, we note that our response rate of participants fell off during the course of the survey, due either to technical problems reported by the teacher-librarians, or through inconsistent administration of the protocol.

While early instrument testing lead to more usable language in survey questions and responses, particularly in terms of format and source choices described, it is unclear how this language may have affected the results. For example, while teacher-librarians use the expression "periodical database" to describe collections of full-text periodical literature and scholarly journal references, we found that students often did not know what this expression meant, or what such resources would contribute to their research. We used the more general term "magazines and newspapers" in place of "periodicals" or "journals". While one may argue these are less accurate or descriptively inclusive terms, the research team erred on the side of participant comprehension.

## Conclusions

Research demonstrates that information literacy skills are becoming increasingly important to life-long learning and success. Students without such skills will be at a disadvantage: they will be unprepared to participate in the media-rich culture that pervades our personal and professional lives. The students in our Grade 9 sample reported that they are at a stage of developing competence in the selection and use of information resources; while there are apparent gaps in their understanding, there are signs that they are accessing a wide range of materials, and engaging in critical assessment of the information they encounter and use in the academic and personal lives.

The findings regarding the use of periodical literature send a challenge to teacher-librarians, educators, and information providers. Magazines, scholarly journals, and newspapers are some of the most timely and useful content libraries can provide. Our survey finds that subscription databases may be misunderstood, and are certainly underutilized. We need to develop ways of delivering credible, relevant, useful information to students that they can access easily and incorporate readily in their work. Providing high quality resources is simply not enough; as information professional we need to package magazines, journals, and scholarly articles in such a way that the barriers to use are equal to or lower than other resources, and instruct students in the value of these resources relative to books, the Web, and other competing resource formats.

In order to provide the most effective instruction in information and technology literacy, teacher-librarians need to have contextual understanding. That is, they need to have ready knowledge of their student populations, their skills and deficiencies, their access patterns and problem solving strategies. Surveys of the type administered in these six research sites are easily replicable with simple equipment and minimal effort. The resulting data can help "target" interventions and develop school-wide programs for systematically delivering and integrating information skills across the school curriculum. An important methodological contribution of this paper is the introduction of a new survey technology to the arsenal that teacher-librarians already have for gathering evidence to support their work.

Due to the tremendous complexity of today's information world and variety of information problems students encounter, it is essential that library practice is evidence-based and continually checked against the developing skills, conceptions, and propensities of today's youth.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Appendix

## *Student Survey Instrument*

***Procedure:*** Allow teacher librarian to administer the survey to 9th grade students within the constraints of a given school context. Teacher Librarians administered the survey using the Personal Response System technology and equipment supplied by the Small Schools Project.

***Script***: Thank you for agreeing to participate in this research study. Please use the remote control like device to indicate your responses to the questions that will appear on the screen as I read them aloud. Only one response will be registered per question regardless of how many times you depress a button. You can change your response in the time allotted simply by pressing a different button that reflects your new response. Participation is voluntary. You do not have to respond to any of the questions at all. Your responses will be anonymous; we will not know how each of you individually responded nor whether you responded. Your grade for this class will not be affected by your responses.

Do any of you have any questions before we begin?

***Questions***:
1. Do you have internet access at home?
    a. Yes
    b. No

2. Other than home, where else are you most likely to access the internet?
    a. School
    b. Public library
    c. Coffee shop
    d. Friend's house
    e. Other

3. How often do you visit the school library?
    a. At least once per week
    b. About 2-3 times per month
    c. About once per month
    d. About 2-3 times per year
    e. About once per year or less

4. How often do you visit the public library?
    a. At least once per week
    b. About 2-3 times per month
    c. About once per month
    d. About 2-3 times per year
    e. About once per year or less

5. Do you ever go to the library to see your friends?
    a. Yes
    b. No

6. Do you ever go to the library to read?
    a. Yes
    b. No

7. Where would you go to find a website?
    a. Google, Yahoo, MSN or other search engine
    b. Digital Learning Commons
    c. Library website
    d. Other

8.  Where would you go to search for a book?
    a.  Google, Yahoo, MSN or other search engine
    b.  Library website
    c.  Amazon.com
    d.  Bookstore or newsstand
    e.  Other

9.  Where would you go to search for a magazine article?
    a.  Google, Yahoo, MSN or other search engine
    b.  Digital Learning Commons
    c.  Library website
    d.  Bookstore or newsstand
    e.  Other

10. Which information sources do you use the most to finish your homework?
    a.  Websites
    b.  Books
    c.  Magazines or newspapers
    d.  Radio, television or movies
    e.  Friends or family members

11. Which information source do you trust the most?
    a.  Websites
    b.  Books
    c.  Magazines or newspapers
    d.  Radio, television or movies
    e.  Friends or family members

12. Which information source do you trust the least?
    a.  Websites
    b.  Books
    c.  Magazines or newspapers
    d.  Radio, television or movies
    e.  Friends or family members

13. Where do you get most of your news?
    a.  Websites
    b.  Magazines or newspapers
    c.  Radio, television or movies
    d.  Friends or family members

14. Has a school librarian ever taught you how to find a website?
    a.  Yes
    b.  No

15. Has a school librarian ever taught you how to find a book?
    a.  Yes
    b.  No

16. Has a school librarian ever taught you how to find a magazine article?
    a.  Yes
    b.  No

# "Reading guidance as a part of Guidance": A popular philosophy of reading guidance in Japan developed by  Michio Namekawa in the 1940s

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*In this study, the author examines the development of Michio Namekawa's philosophy on reading guidance, dokusho shido, which has been since the late 1940s one of the two pillars of school library philosophy in Japan.  Namekawa is recognized as one of the key persons to cultivate the practice and philosophy of reading guidance in post-war Japan.  To conduct the research, the author collects and examines all of Namekawa's historical documents from the pre- to early post-WWII periods, when he developed his theory of reading guidance.  The author finds that Namekawa's philosophy can partially be traced back to the war period at which time a children's cultural improvement movement occurred.  Then, under the occupation after the war, the CIE Education Division led Namekawa to shape his philosophy and curriculum more concretely.  Around 1949, he found important components of the concept of integrating reading guidance into a students' personal life-Guidance, which Namekawa maintained throughout the post-war period.*

*school library philosophy, reading  guidance, Michio Namekawa*

## Introduction

In this study, the author examines the development of Michio Namekawa's philosophy on reading guidance, *dokusho shido*, which has been acquired as one of the two pillars of the school library philosophy by many Japanese teachers and librarians throughout post-war Japan.  To conduct the research, the author collects and examines all of Namekawa's historical documents (books and articles) from the pre- to early post- WWII periods, especially in the 1930s and 1940s when he first developed his theory of reading guidance, in order to see how he developed his theory in his writings.

This research would probably imply how deeply the need for reading guidance for children is rooted in the Japanese belief in the importance of reading throughout life.  Contrary to this, it seems that many Japanese have not recognized the need for a concrete base of the reading guidance philosophy; in fact, there has not been a lot of discussion over the theoretical basis of reading guidance these years, although the word of reading guidance, *dokusho shido* has been mentioned on many occasions.  For an example, Japanese National

Diet passed the "Law on the Promotion of Reading Activities for Children" in 2001, and the basic plan for realizing the philosophy of the law was reported by the MEXT (Ministry of Education, Culture, Sports, Science and Technology) after that (The International Library of Children's Literature, 2004). Throughout the plan, practicing reading guidance, *dokusho shido,* at home, in the communities, libraries and school libraries was proposed, though it is not clearly shown what steps to take to provide reading guidance to the children, as if the related people are supposed to know what to do. There has not been a lot of discussion for the better practice of reading guidance. It seems that reading guidance has not been theoretically developed and has just been an expert librarians' implicit knowledge, whereas it has been challenged by some researchers to develop the information literacy instruction based on scientific research, especially in the fields of LIS and the other related science. However, one Japanese teacher, Michio Namekawa (1902-1992) had tried to develop a philosophy throughout his life and this research would show the core of his theory and examine its development. Reviewing Namekawa's thoughts might give us a chance to rethink the position of reading guidance in the educational practice and theory base for the school library.

## The previous research on Namekawa and *dokusho shido*

### Michio Namekawa

Michio Namekawa (1902-1992) was an elementary school teacher famous for his commitment to Japanese-language pedagogy and enrichment of children's culture, with special interests in writing (composition) instruction, reading guidance, and school libraries. The author's past research (Nakamura, 2006) shows that Namekawa was a key figure when the school library theory was reformed, with suggestions and guidance from American librarians, during the occupation of Japan just after WWII. At the time, the educational function of school libraries and their personnel was rebuilt with two pillars of "instruction in the use of books and libraries" and "reading guidance" in *Gakko Toshokan no Tebiki* (*School Library Mannual*) published in 1949, and this still seems to have influence on Japanese understanding of the roles of the school library, as MEXT has proposed, since the 1990s, that the school library has two roles of "learning information (*gakushu joho*) centre" and "reading (*dokusho*) centre".

The most of the past research done by other Japanese scholars focuses on Namekawa's work in the post-war period; however, historical documents show Namekawa had engaged in educational practices related to children's reading quite proactively from the pre-war period, and started to develop a theory of reading guidance based on his teaching and studying experience. Therefore, the author's intention in this research is to examine exactly when and how his theory developed, focusing on the pre-war and wartime periods.

### *dokusho shido* (reading guidance)

The word *dokusho shido* (reading guidance) was used often during WWII by public librarians and the Ministry of Education (Okuizumi, 1994, 1992). After the war, librarians, mostly the public librarians, reflected on their past practices and thought that some of their reading guidance activities during the war played a part in indoctrinating young people with

an ultra-nationalistic attitude through reading. Then it seems that the term *dokusho shido* became almost allergenic as many public librarians had regrets about their commitment to the war. There have been almost no writings by Japanese public librarians who advocate *dokusho shido* in the library after the war.

However, the same word seems to have been naturally accepted by teachers and school library personnel in the post-war Japan. That is, from one point of view, most likely, partly due to the leadership of Namekawa and his theory appealing to a common sense of Japanese. The school library got systematized under the new educational law established in 1947, and educational activities around school libraries prevailed after the war in Japan. Then, *dokusho shido* in and around the school library has also received attention of teachers and parents. Namekawa was probably the only person who had kept working on making a theoretical base for reading guidance throughout the life. Since Namekawa passed away in 1992, research on history of reading guidance as well as that on Namekawa had progressed (Kuwahara, 1993; Adachi, 1995a, 1995b, 1997, 1998, 1999; Goto, 1996; Kurosawa, 2003; Yamaguchi, 2003; Horikawa, 2005), although most of them focus on Namekawa's activities in the post-war period.

## Development of the reading guidance theory by Namekawa

*The pre-war and wartime periods: Exploring interests in non-textbook reading materials and in the children's cultural improvement movement*

Namekawa started out as an elementary school teacher in Akita, a northern city of Honshu, and in 1932 became a teacher in Seikei Elementary School, one of the most prestigious private elementary schools in Tokyo which was established in 1915 and based on a child-centred philosophy. Since the time in Akita, he had been interested in using non-textbook reading materials in his educational practice (Namekawa, 1993). Since Taisho era (1912-1926), more teachers had started to pay attentions to books for children beside textbooks, which books were called *kagai-yomimono* (out-of-curricular reading materials). He recalled that senior teachers in Seikei Elementary School told him to be responsible for the school library and to collect only "good" books, no *manga* nor vulgar books (Namekawa, 1979). It was his first experience in taking care of the school library, and during the period, he said he had focused his activities mostly on reading promotion (Namekawa, 1979).

The Second Sino-Japanese War occurred in 1937. In the following year, 1938, the Interior Ministry started cleaning up children's books (magazines, picture books, *manga* and so on). In the next year, the Ministry of Education started recommending children's books, while at the same time the enrichment movement of "children's culture (*jido bunka*)" was occurring among teachers. Namekawa got deeply involved in the *jido bunka* movement and the Ministry of Education's project. Ministry of Education, as well as Namekawa, stated that children's parents and teachers should choose and provide appropriate books to conduct reading guidance. However, after a few years, in the end of FY1941 (assumingly March 1942), he was taken away from the committee of selecting books for the Ministry of Education's project, probably because he was recognized as a liberalist (Namekawa, 1997).

In those days, Namekawa started to develop his theory on reading guidance. He pointed out two meanings/directions of reading guidance/reading training in *Theory of Children's Culture* (*jido bunka ron*) published in 1941 (Kokugoo Kyoiku Gakkai, 1991), and *An Attempt at Interpretation of Literature for Small Citizens* (*sho kokumin bungaku shiron*) published in 1942 (Namekawa, 1942). He clamed in those books that there were two meanings or directions: guiding children on what to read and on how to read. In later years, Namekawa said that before him, there had been just a few books concerning what to read mostly in relation to the selection of children's books for the library (Namekawa, 1970). It was he who initiated the development of reading guidance theory in the early 1940s. However, its historical backdrop was the children's cultural "improvement" in the wartime and that, was a kind of "cleanup" of "bad" culture by the government and the authorities, not only the project by Ministry of Interior. Therefore, it is so difficult to evaluate his work in this period and it can be easily criticized because of his part in education in the wartime. But his enthusiasm for giving children good books was probably a noble move from his experience and educational practice with children.

### The post-war period: Reaching to the belief "reading guidance as a part of a daily-life Guidance"

After the war, in the spring of 1947 when the post-war new school system started, Namekawa was told to help starting a campaign for reading which fit in with conditions of Japan by American officers and consultants in CIE, GHQ/SCAP (Civil Information and Education Section, General Headquarters, Supreme Commander of the Allied Powers) (Namekawa, 1993). He wrote a curriculum for reading guidance and lectured to Japanese teachers in several occasions, under American supervision (Namekawa, 1979). Through these experiences, Namekawa's philosophy on reading guidance became more concrete and developed into a curriculum. For example, a curriculum for the elementary school published in 1949 was composed of the following 6 elements (for the first and second grades, F was omitted): A. guidance on attitude toward reading; B. guidance on medical and sanitary affairs of reading; C. guidance on books; D. guidance in the library; E. guidance about the library; F. guidance in the area of reading (Namekawa, 1949a; 1949b). Namekawa said, in developing curriculum, resources from the US were helpful. He translated a part of the Chapter 7 "Lessons On the Use of the Library" of *North Carolina School Library Handbook* published in the North Carolina, US, in 1942 (Douglas, 1942) (Namekawa and Inagaki, 1949). Namekawa tried to combine the ideas of reading guidance and instruction in the use of books and libraries from the US but, later on, it turned out to be difficult (this would require our further research).

In this period, one of the educational philosophy of so-called "Guidance" was introduced from the U.S., mostly through the resources given by the Americans of CIE. The word was translated into several Japanese words and one of the translations was "*seikatsu shido* (literally meaning "life guidance")." The word means a daily life guidance to teach students how to behave and live. The life of Japanese and their children was hard just after the war and the word *seikatsu shido* had been developed since the pre-war period among teachers who were interested in child-centered education, which became popular just after the war ended. Namekawa had worked on a daily-life guidance from another point of view, that is in teaching writing (composition) through letting children write about their life, since the pre-war period. Namekawa applied and integrated those experience and ideas into his reading guidance philosophy. In November 1948, he first mentioned "reading guidance as a part of Guidance" as follows: "Reading guidance is not just guiding how to read which is a

narrow meaning, but that is guiding reading in the life which is a broad meaning. That is, reading guidance does not produce any meaningful result, if it is not provided as a part of Guidance. (snip) I always said simply that "reading guidance is cultivated reading power and mind which is a part of living power" (Sekino and Namekawa, 1948). Namekawa developed his reading guidance philosophy with the central core of the belief shown at the early post-war period.

## Conclusion and discussion

In this study, the author examines how Michio Namekawa's philosophy on reading guidance (*dokusho shido*) developed. Through examination of Namekawa's historical documents the author found that the outset of Namekawa's philosophical development, which blossomed in the post-war period, could be determined in the book, which he co-authored, *Theory of Children's Culture* (*jido bunka ron*) published in 1941 during the war. While the children's cultural improvement movement was transpiring in the late 1930s, his interest concerning children's books and reading deepened. Under the occupation after the war, the CIE Education Division led Namekawa to shape his philosophy and curriculum more concretely. Around 1949, he found important components of the concept of integrating reading guidance into a student's personal life-Guidance which Namekawa maintained throughout the post-war period.

The experience of Namekawa and the Japanese recall the following questions related to the education on reading and the reading promotion for children, which many school librarians may be interested in: "Is there a unique area of reading guidance, aside from a reading promotion and a subject of language study?" and "Can reading guidance philosophy be one of the two pillars of the school library philosophy or should it be integrated into the information literacy instruction?"

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## Statement of Originality

The paper above is based upon Yuriko Nakamura's original research and the paper was conceived and written by herself and has not been published elsewhere. All information and ideas from others is referenced.

# Assessing Teacher and Librarian Collaboration:
# A Preliminary Report

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*Exploratory factor analysis was used to examine the structure of a 32-item teacher and librarian collaboration survey (TLC-II). The survey consisted of two scales with 16 items in each scale, Frequency and Importance to Student Learning. Scores from teacher surveys (N=194) were examined using principal axis factoring and oblique rotation to identify underlying constructs. A four factor interpretable structure of teacher and librarian collaboration emerged providing support for a proposed model of teacher and librarian collaboration. Internal consistency was high for the overall scale and for each of the factors. The results of this study provide a basis for further refinement of the instrument in preparation for broad distribution among teachers and librarians.*

*Collaboration, teacher and librarian collaboration, factor analysis*

## Introduction

Collaboration among teachers and librarians[1] is recommended in professional guidelines as an integral part of school librarianship (American Association of School Librarians [AASL] and Association for Educational Communications and Technology [AECT], 1998). An early study by Lance (1993) commonly referred to as "the Colorado Study" found indications that higher standardized test results occurred in schools where teachers worked with librarians. These results have also been found in additional studies across the United States leading to efforts to increase teacher and librarian collaboration as a means of improving student academic achievement (Lance, 1994, 2001, 2002; Lance et al., 1993, 1999, 2000, 2001, 2005; Lance & Russell, 2004; Rodney et al., 2002, 2003). Considerable anecdotal evidence of the positive effect of teacher and librarian collaboration on improved student academic achievement also exists. For example, librarians have written extensively about the importance of teacher and librarian collaboration in schools to meet standards for students to be successful (Bush, 1998; Busseo, 2003; Jinkins, 2001; Milbury, 2005), and about the attributes needed for librarians to be successful collaborators (Abilock, 2002). However, the types of practices undertaken by teachers and librarians are not always clearly understood. Such information is essential to further understand the relationship between teacher and librarian collaboration and improved student academic achievement. The purpose of this paper is to discuss preliminary results from a study assessing the types of

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[1] The term librarian is used throughout to avoid confusion in the discussion of teacher and librarian collaboration. Other preferred terms include teacher-librarian, school library media specialist, information specialist, and media specialist.

collaborative practices that teachers and librarians engage in and examining factors that may contribute to teacher and librarian collaboration.

## Background

Although teacher and librarian collaboration is a relatively new phenomenon for school librarians (AASL & AECT, 1998), the notion of librarians working closely with teachers to plan and implement instruction (as opposed to gathering information and distributing it) has been discussed within the profession for over twenty years (Loertscher, 1982, 1988).  Efforts to expand the role of librarians into curriculum planning and implementation were proposed, and suggestions that librarians become co-planners, co-implementors, and co-evaluators with teachers were widely discussed in the literature (Callison, 1997) before being recommended in professional guidelines for school librarians (AASL and AECT, 1998).  Building on the works of others in the field of school librarianship, Montiel-Overall (2005) proposed a model of teacher and librarian collaboration (TLC Model), and identified possible facets of collaboration (Montiel-Overall, 2006) between teachers and librarian ranging from low- to high-end collaboration along a continuum of collaborative practices.  A preliminary survey of teacher and librarian collaboration (TLC-Survey) found some support for the proposed model.  Using exploratory factor analysis, two factors emerged, Integrated Instruction and Traditional Role for Teacher and Librarian, from an instrument distributed to teachers and librarians.  Utilizing these results, an expanded measure of teacher and librarian collaborative practices was developed.  This paper reports on results from a pilot study of a second teacher and librarian collaboration survey (TLC-II).  The instrument was developed to examine teacher and librarian collaborative practices and to test the proposed TLC Model, which identified four facets of collaborative practices that emerged from a broad review of the literature (Callison, 1997; Lance, 1994, 2001, 2002; Lance, et al., 1993, 1999, 2000, 2001, 2005; Lance & Russell, 2004; Loertscher, 1982, 1988, 2000; Rodney, et al., 2002, 2003).  The facets (originally called "Models") reflected the range of practices discussed in the literature.  For example, Facet A: *Coordination* identified practices that were commonly carried out between teachers and librarians such as organizational or scheduling responsibilities.  Facet B: *Cooperation* involved traditional librarian practices in which teachers and librarians worked together. These included such activities as finding resources for teachers to use in instruction and helping teachers by giving booktalks.  Facet C: *Integrated Instruction* reflected practices recommended by professional guidelines. These practices included jointly planned and taught lessons.  Finally, Facet D: *Integrated Curriculum* described broad application across a school or school district of teachers and librarians working together to integrate instruction (i.e. jointly planned lessons described in Facet C: *Integrated Instruction* would occur across a school or school district).

## Method

### Description of Sample

Data were collected from 204 participating teachers and librarians from 11 elementary schools in a metropolitan school district in the southwest United States.  Because of the small number of librarians in the study, only surveys from 194 teacher surveys were analyzed.   Of these, the majority were female (86%), reflecting the population of the teaching profession. Teachers breakdown by age was 33% between 20-30 years of age, 24% ($n$=48) between 31-

40 years of age, 24% (*n=48*) between 41-50 years of age, 29% (*n=57*) between the ages of 51-60, and 3% (*n=7*) reported being over the age of 61.  One teacher did not respond to this question.  The ethnicity breakdown for teachers in the sample was 49% (*n=95*) identified as White (non-Hispanic), 44% (*n=87*) identified as Hispanic/Latino, 2% (*n=4*) identified as Asian-American, 1% (*n=3*) identified as African-American, and 1% (*n=3*) identified as Other.  Two teachers did not respond to this question.  Educational level was reported by 191 teachers.  Of these, 55% (*n=106*) had a Bachelor's degree, 39% (*n=76*) had a Master's degree, 1% (*n=2*) of teachers reported having a Masters of Library Science, and 37% (*n=7*) reported Other.  For teaching experience, 28% (*n=56*) teachers reported having taught for less than 6 years, 20% (*n=66*) had between 6-10 years, 13% (*n=27*) had between 11-15 years, 22% (*n=43*) had taught between 16 and 25 years, and 15% (*n=29*) had taught 26 or more years.  Finally, 53% (*n=103*) of teachers had been at the school for up to five years, 35% (*n=68*) had been at the school for between 6-15 years, 10% (*n=21*) for 16-25 years, and only 1% (*n=2*) of teachers had been at the school for 26 or more years.

*Procedure*

*Participants.* After Institutional Review Board approval to conduct the study with teachers and librarians from local schools in the community was received, schools were selected from a list provided by school district administrators.  Only schools with full-time librarians were considered for the study.  Once schools had been identified, a meeting with the principal of each school took place.  This was followed by a formal application to the school district to conduct research at the school.  After each district approved the study, principals were again contacted to assist the researcher in scheduling a time for distribution of the instrument. All principals agreed to allow the researcher and research assistants to attend a faculty meeting and to distribute the instrument at that time.   Participants received token compensation for their time.

*Development of the Instrument.* The instrument was constructed to test a proposed model of teacher and librarian collaboration (Montiel-Overall, 2005) with four facets of teacher and librarian collaboration previously mentioned (Coordination, Cooperation, Integrated Instruction, and Integrated Curriculum). The instrument consisted of several sections, which asked participants to rate aspects of teacher and librarians collaboration such as levels of trust, interest, innovation, and time.  This paper reports only on a 32-item section designed to measure types of activities reflected in the four facets of the TLC Model. A prototype of the instrument was constructed after an extensive review of the literature, and contained items from a previous study (ibid.). The list of items was reviewed by a panel of expert teachers and librarians.

*Content Validity.*  In order to ensure face and content validity of the instrument, the theoretical framework proposed in the TLC Model was used along with the expert opinion of teacher and librarian panelists from one of the school districts from which participants in the study were employed.  Librarian expert panelists who assisted with the development of the instrument were nominated by school district administrators because they were well respected for their ability to work with teachers collaboratively on instruction.  Teacher panelists were selected by the librarians.  Among the teacher-librarian panelists was a winner of a national award for her collaboration with teachers. Another panelist had helped develop library standards approved by the school board for the school district.  The standards required teacher and librarian collaboration for implementation.  Teachers included on the panel were

considered expert teacher and librarian collaborators by the librarian and the school principal. Those recruited for the panels each had over 10 years teaching and/or library experience. In addition to the panelists, a statistician reviewed the instrument during and after its development to ensure clarity of wording.

Review of items by panelists included extensive discussion and revision until final agreement by panelists was reached. Several rounds of reviews occurred. First one panel of four teachers and librarians reviewed the prototype of the survey to change or delete items to the original list and to generate additional items (statements) that would describe collaborative practices between teachers and librarians. A second panel then reviewed the revisions and selected redundant items to eliminate and created the final list of items with four items for each facet of the TLC Model. This was done to ensure adequate representation in each category (Fabrigar et al., 1999).

*Field testing.* After the panels had reviewed the survey, the instrument was administered to a small group of teachers and librarians (*n*=23) from a school district in the community where the instrument was later field tested. Participants were recruited by school librarians. The participants signed a consent form according to Institutional Review Board procedures. Each participant received a token compensation for completing the survey and for discussing it with the researcher afterwards. Participants recommended changes in wording for clarity and reorganization of like-items. The survey took approximately 20 minutes and the postsurvey discussion took approximately 25 minutes. High internal consistency was demonstrated on the 38 items in the subsection of teacher and librarian collaboration survey (Coefficient alpha = 0 .93).

Refinement of instrument. Further refinement of the TLC-II continued after field-testing and redundant items were removed as suggested by participants during field-testing of the instrument. A final revision was made of the instrument and instructions were reworded for clarity to increase reliability of the instrument. The final version of was a pencil and paper self-administered survey, which contained several sections. The first section, reported on in this paper, contained two sets of 16 items answered on a 4-point Likert-type scale. The first set of 16 items was related to the *frequency* with which practices occurred and were scaled between 1 (never) and 4 (always). Respondents were asked to rate the frequency of practices such as working with teachers to arrange visits to the library for students and jointly planning, teaching, and evaluating students. Using the same set of 16 statements, participants were also asked to rate *how important to student learning* they thought the practice was. A 4-point Likert-type scale ranging from 1 (not at all important) to 4 (always important) to was used for these items.

Missing data. Of the teacher participants, 10 cases were missing data for one or more items. Expectation maximization (EM) was the method used for handling missing data in this study. EM is an iterative procedure involving multiple steps (Expectation and Maximisation) described in Graham et al., (2003). The procedure utilizes partially observed data to determine missing values and is considered preferable to listwise deletion used as the default on the Statistical (SPSS) statistical package used for this study. (For further discussion of missing data on surveys see Montiel-Overall, 2008b.)

*Analysis*

Exploratory factor analysis were carried out on teacher responses (*N*=194) for each of the two sets of 16 questions. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was conducted to determine appropriate use of exploratory factor analysis.  KMO results was for frequency was .90 and for importance to student learning was .89  indicating correlations between pairs of variables were sufficiently high to proceed with exploratory factor analysis (EFA). Principal axis factoring (with communalities substituted for values of 1.0 in the correlation matrix) was used to extract the factors and oblique (Promax) and orthogonal (Varimax) rotation were performed to rotate to "simple structure" (Thurstone, 1947) for the two sets of variables, Frequency (F1-F16) and Importance to Student Learning (SL1-SL16). Both orthogonal and oblique rotations yielded similar results but because factors were expected to be correlated both theoretically (and were so in practice), the results of the oblique rotation are discussed here. Descriptive statistics (Means and standard deviations) for both scales (Frequency and Importance to Student Learning) are provided on Table 1.

Table 1. Means and Standard Deviations for Teacher and Librarian Collaborative Practices Most Frequently Performed (F1-F16) and Most Important to Student Learning (SL1-SL16) as Perceived by Teachers (*N*=194)

| Item | | Mean | SD |
|------|------|------|------|
| F1 | T/L work to arrange times for library use | 2.36 | .79 |
| F2 | T/L spend time to organize instructional activities in the library | 1.97 | .71 |
| F3 | T/L work to coordinate schedules | 2.30 | .87 |
| F4 | T schedules time for L to talk to students about a particular book | 1.82 | .79 |
| F5* | T/L discuss library materials for teaching | 2.30 | .81 |
| F6 | T/L discuss what students will do when they go to the library | 2.35 | .77 |
| F7* | T asks L for resources for instruction | 2.67 | .67 |
| F8* | T/L divide responsibilities when working together | 2.18 | .78 |
| F9 | T/L jointly plan objectives for lessons | 1.65 | .68 |
| F10* | T/L implement lessons together | 1.75 | .73 |
| F11 | T/L integrate library curriculum into teaching | 2.28 | .86 |
| F12 | T/L jointly evaluate students' progress | 1.66 | .77 |
| F13* | T/L jointly develop objectives in school district | 2.01 | .81 |
| F14 | T/L jointly plan lessons in school district | 1.93 | .79 |
| F15 | T/L jointly participate in curriculum planning in school district | 2.09 | .87 |
| F16 | T/L jointly teach together in school district | 2.04 | .84 |
| | | | |
| SL1 | T/L work to arrange times for library use | 3.13 | .77 |
| SL2 | T/L spend time to organize instructional activities in the library | 2.97 | .76 |
| SL3 | T/L work to coordinate schedules | 3.17 | .77 |
| SL4 | T schedules time for L to talk to students about a particular book | 2.78 | .83 |
| SL5* | T/L discuss library materials for teaching | 3.11 | .76 |
| SL6 | T/L discuss what students will do when they go to the library | 3.07 | .72 |
| SL7* | T asks L for resources for instruction | 3.34 | .67 |
| SL8* | T/L divide responsibilities when working together | 3.04 | .80 |
| SL9 | T/L jointly plan objectives for lessons | 2.68 | .89 |
| SL10* | T/L implement lessons together | 2.72 | .84 |
| SL11 | T/L integrate library curriculum into teaching | 3.09 | .74 |
| SL12 | T/L jointly evaluate students' progress | 2.50 | .91 |
| SL13* | T/L jointly develop objectives in school district | 2.80 | .85 |
| SL14 | T/L jointly plan lessons in school district | 2.70 | .86 |
| SL15 | T/L jointly participate in curriculum planning in school district | 2.86 | .81 |
| SL16 | T/L jointly teach together in school district | 2.81 | .85 |

*Note*: Means are arranged from highest to lowest for each scale, Frequency and Importance to Student Learning.  Four point scales were used for both Frequency and Importance to Student Learning.
* Items ranked in the same position on both scales.

# Results

*Frequency of teacher and librarian collaboration.*

*Extraction of Factors.* Initial analysis of unrotated factors using Principal Axis Factoring was carried out yielding four factors. PAF extraction indicated that factors were highly correlated, as anticipated. The criterion of eigenvalue $> 1$ (Kaiser, 1960) and the scree test (Cattell, 1966) were both used to determine the appropriateness of the four factor model (Fabrigar et al., 1999). A strong central factor representing approximately 45% of the total variability in the variables was present. The first factor accounted for over 45% of the variance with the next three factors representing 13.5%, 7.3%, and 6.6% of the total variability (the four eigenvalues were approximately 7.22, 2.16, 1.17, and 1.06; the total variability for 16 variables was 16.0).

Communalities among all measured factors for Frequency items (F1-F16) were examined to determine the percent of variance in a given variable for all factors extracted. Communalities among Frequency items (F1-16) were moderate to high ranging from .42 to .80 (Table 2). Communalities are considered high when they are $>.6$ (MacCullum et al., 1999). The unrotated loadings showed the presence of a strong central factor, with loadings ranging from 59 to .76, which is a common result when factors are highly correlated. Accordingly, rotation results were examined for interpretability.

*Rotation of Factor Loading Matrices.* PAF with orthogonal (Varimax) and oblique (Promax) rotations were carried out for further interpretation. Since four constructs were postulated to underlie the data, a four factor model was requested in the rotation. Results from both methods were similar.

Table 2.
Item Communality and Exploratory Factor Analysis Results for Frequency of Collaborative Practices

| Item | Communality | Factor Loadings | | | |
|------|-------------|-----------------|---|---|---|
| | | Factor 1: Integrated Instr. | Factor 2: Integrated Cur. | Factor 3: Coordination | Factor 4: Cooperative Role |
| F10 | 0.76 | 0.95 | --- | --- | --- |
| F9 | 0.70 | 0.88 | --- | --- | --- |
| F2 | 0.59 | 0.62 | --- | --- | --- |
| F11 | 0.43 | 0.53 | --- | --- | --- |
| F12 | 0.42 | 0.61 | --- | --- | --- |
| F4 | 0.49 | 0.50 | --- | --- | --- |
| F13 | 0.79 | --- | 0.86 | --- | --- |
| F16 | 0.77 | --- | 0.84 | --- | --- |
| F14 | 0.70 | --- | 0.84 | --- | --- |
| F15 | 0.77 | --- | 0.87 | --- | --- |
| F1 | 0.75 | --- | --- | 0.89 | --- |
| F3 | 0.80 | --- | --- | 0.90 | --- |
| F7 | 0.78 | --- | --- | --- | 0.96 |
| F5 | 0.59 | --- | --- | --- | 0.65 |
| F8 | 0.55 | --- | --- | --- | 0.51 |

Oblique (Promax) rotation may be more difficult to interpret because items may load on more than one factor. Three sets of "loadings" are available in oblique rotation. The pattern matrix provided the most interpretable results and was used for interpretation as recommended by Tabachnick and Fidell (1996). However, the structure matrix and content of items were also used in interpreting results. Table 3 presents the factor correlation matrix, which indicates the relative independence of the various constructs. Factor 1 was highly correlated with all variables. However, the correlations between Factor 2 and Factors 3 and 4

were relatively low.  The pattern and structure matrices provided additional information distinguishing variables (Table 4).  A ± .50 threshold was loosely used to identify items that characterized the factor (Ibid.).

Table 3  Factor Correlation Matrix for Frequency

| Factor | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 1. Integrated Instruction | 1.000 | .525 | .584 | .613 |
| 2. Integrated Curriculum | .525 | 1.000 | .298 | .378 |
| 3. Coordination | .584 | .298 | 1.000 | .562 |
| 4. Traditional Cooperative T/L Role | .613 | .378 | .562 | 1.000 |

Factor 1 was moderately to highly correlated with F9, F10, F11, F12 (.53-.95) and to a lesser extent to F2 and F4 (.62 and .50 respectively) in the pattern matrix.  This was similar to the loadings on the structure matrix. However on the structure matrix, items were less well defined with cross-loadings for six items (F2, F3, F4, F5, F6, and F8).  Content of items was used for further interpretation of this factor.  Since the six items in the pattern matrix were associated with collaborative practices in which teachers and librarians integrated course content and library curriculum in their instruction, the label assigned to this factor was Course Integrated Instruction.

Factor 2 was defined by four closely related items, F13-F16 (.84-.87), with high factor loadings and substantially smaller correlations for other variables on both the pattern and structure matrices.  Items in Factor 2 were associated with joint planning and teaching across the school district. Examples of statements for this factor include "Teachers and librarians in my school district jointly develop objectives for instruction" and "Teachers and librarians in my school district teach together (e.g. plan and implement lessons that integrate the academic curriculum-math, science, social studies- with library instruction)."  Since as all items referred to integrated instruction across the school district, Factor 2 was labelled Integrated Curriculum.

Factor 3 was defined by two items on the pattern matrix, F1 and F3 (.89 and .90 respectively) with the remaining loading having low or negative values.  On the structure matrix, F1, F2, F3, F4, and F6 (.58 to .89) loaded moderately to highly with F6 loading on three factors (1, 3, and 4) indicating shared variance with other factors.  An examination of the content of these items revealed practices attributed to management efforts (e.g., arrange time, schedule time, coordinate schedules).  Examples of  statements for these items included "Working with the librarian to coordinate schedules so that students can use the library," "Working with the librarian to arrange time periods for students to use the library," and "Scheduling time for the librarian to talk to students about a book."  Factor 3 generally corresponded to a low level of collaboration on the TLC Model (Facet A: Coordination).  Accordingly, Factor 3 was labelled Coordination of Activities.

Factor 4 was defined by three items F5, F7, and F8 (.65, .96, and .51 respectively) on the pattern matrix, and by four items on the structure matrix, F5, F6, F8, and F9 (.76, .60, .68, and .50).  While no crossloads were observed in the pattern matrix, four occurred in the structure matrix (F5, F6, F8, and F9).  F6 loaded on multiple factors in the structure matrix and did not load on the pattern matrix. This item apparently had elements that pertained to multiple factors rather than "simple structure" (Thurstone, 1935).  An examination of the content of other variables in this factor was used to determine the most appropriate structure since there is no single correct solution.  Factor 4 was labelled Traditional Cooperative Role since it contained items that implied cooperative endeavors between teacher and librarian in which the librarian carried out traditional responsibilities of helping teachers find resources for teaching and dividing responsibilities. Examples of statements in Factor 4 include "asking the librarian for library resources to use in instruction," "spending time with the librarian to

discuss library materials (e.g. books, websites, references) needed for teaching," and "dividing responsibilities when jointly working (e.g. librarian gathers resources for a lesson that you [the teacher] will teach)."

Table 4
Structure Coefficients and Pattern Weights and Alpha Coefficients for Frequency of Collaborative Practices between Teacher and Librarian (T/L) Based on Teacher Surveys

| Item Stem | Pattern | Structure |
|---|---|---|
| **Factor 1 Course Integrated Instruction  α=0.87** | | |
| F10 T/L implementing lessons | .95 | .86 |
| F9  T/L planning objectives for lessons | .88 | .84 |
| F2  T/L spending time to organize instructional activities | .62 | .74 |
| F11 T/L integrate library curriculum into teaching | .53 | .65 |
| F12 T/L evaluating students' progress | .61 | .62 |
| F4  T/L schedule time for librarian to talk to students about a book | .50 | .65 |
| **Factor 2 Integrated Curriculum   α=0.93** | | |
| F13 T/L jointly develop objectives in school district | .86 | .89 |
| F16 T/L teach together in school district | .84 | .84 |
| F14 T/L jointly plan lessons in school district | .84 | .88 |
| F15 T/L jointly participate in curriculum planning | .87 | .88 |
| **Factor 3 Coordination of Activities   α=0.87** | | |
| F1 T/L arrange times for library use | .89 | .86 |
| F3 T/L coordinate schedules | .90 | .89 |
| **Factor 4 Traditional Cooperative T/L Roles   α=0.81** | | |
| F7  T asks librarian for library resources for instruction | .96 | .87 |
| F5  T/L discuss library materials needed for teaching | .65 | .80 |
| F8  T/L divide responsibilities when working together | .51 | .68 |

*Note.* Values from the pattern matrix are arranged from highest to lowest with higher values indicating stronger correlations.

*Importance to student learning*

*Extraction of Factors.* Initial analysis of unrotated factors using Principal Axis Factoring was carried out yielding three factors. The criterion of eigenvalue > 1 (Kaiser, 1960) and the scree test (Cattell, 1966) were both used to determine the appropriateness of the three factor model (Fabrigar et al., 1999). A four factor model was supported by the scree test (Cattell, 1966) with a slight elbow after the fifth factor. The last factor fell just under the eigenvalue >1 rule (Kaiser, 1960) but was interpretable so it was retained. PAF extraction indicated that factors were highly correlated, as anticipated. A strong central factor representing approximately 48% of the total variability in the variables was present. The first factor accounted for over 48% of the variance with the next three factors representing 12.7%, 6.43%, and 5.71% of the total variability (the four eigenvalues were approximately 7.75, 2.04, 1.03, and .91; the total variability for 16 variables was 16.0).

Communalities among all measured factors for Importance to Student Learning items (SL1-SL16) were examined to determine the percent of variance in a given variable for all factors extracted. Communalities among Importance to Student Learning items (SL1-SL16) were moderate to high ranging from .49 to .84 (Table 5). Communalities are considered high when they are >.6 (MacCullum et al., 1999). As with the Frequency variables, all items had high loadings on the first unrotated factor with loadings ranging from .54 to .78, which is a common result when factors are highly correlated. Accordingly, rotation results were examined for interpretability.

*Rotation of Factor Loading Matrices.* Oblique (Promax) rotation was again selected because factors were expected to be correlated. As with the Frequency variables, four factors were selected for rotation and a +/- .50 threshold was used to identify items that defined each factor (Tabachnick & Lidell, 1996). Three sets of loadings available in oblique rotation were examined in interpreting the data.

Table 5.
Item Communality and Exploratory Factor Analysis Results for Importance to Student Learning

| Item | Communality | Factor 1: Integrated Cur. | Factor 2: Integrated Instr. | Factor 3: Coordination | Factor 4: Cooperative Role |
|------|-------------|---------------------------|-----------------------------|------------------------|-----------------------------|
| SL15 | 0.84 | 0.94 | --- | --- | --- |
| SL13 | 0.82 | 0.89 | --- | --- | --- |
| SL14 | 0.81 | 0.83 | --- | --- | --- |
| SL16 | 0.66 | 0.76 | --- | --- | --- |
| SL10 | 0.78 | --- | 0.95 | --- | --- |
| SL9 | 0.76 | --- | 0.94 | --- | --- |
| SL12 | 0.51 | --- | 0.63 | --- | --- |
| SL11 | 0.49 | --- | 0.45 | --- | --- |
| SL3 | 0.79 | --- | --- | 1.02 | --- |
| SL1 | 0.64 | --- | --- | 0.76 | --- |
| SL7 | 0.72 | --- | --- | --- | 0.93 |
| SL5 | 0.56 | --- | --- | --- | 0.74 |
| SL8 | 0.61 | --- | --- | --- | 0.62 |

Substantial intercorrelations among the factors indicate that the constructs, while identifying some unique variability were highly related to each other. Table 6 contains the correlation matrix for the Importance to Student Learning scale. Correlations were quite high.

Table 6 Factor Correlation Matrix for Importance to Student Learning

| Factor | 1 | 2 | 3 | 4 |
|--------|------|------|------|------|
| 1. Integrated Instruction | 1.000 | .668 | .403 | .431 |
| 2. Integrated Curriculum | .668 | 1.000 | .619 | .601 |
| 3. Coordination | .403 | .619 | 1.000 | .681 |
| 4. Traditional Cooperative T/L Role | .431 | .601 | .681 | 1.000 |

Factor 1 was defined by four items, SL13-SL16, with loadings from .76-.94 in the pattern matrix and slightly higher loading in the structure matrix (.80-.91) (see Table 6). Examination of content indicated these four items were strongly related to collaborative practices across the school district, and were thus assigned the label, Integrated Curriculum. Items in this factor included "teachers and librarian in my school district jointly participate in curriculum planning," and "teachers and librarian in my school district jointly develop objectives for instruction."

Table 7
Structure Coefficients and Pattern Weights and Alpha Coefficients for Importance of
Collaborative Practices between Teacher and Librarian (T/L) Based on Teacher Surveys

| Item Stem | Pattern | Structure |
|---|---|---|
| Factor 1 Integrated Curriculum  α=0.93 | | |
| SL15 T/L jointly participate in curriculum planning | .94 | .91 |
| SL13 T/L jointly develop objectives in school district | .90 | .90 |
| SL14 T/L jointly plan lessons in school district | .83 | .90 |
| SL16 T/L teach together in school district | .76 | .81 |
| | | |
| Factor 2 Course Integrated Instruction  α=0.86 | | |
| SL10 T/L implementing lessons | .95 | .88 |
| SL9  T/L planning objectives for lessons | .94 | .86 |
| SL12 T/L evaluating students' progress | .63 | .70 |
| SL11 T/L integrate library curriculum into teaching | .45 | .67 |
| | | |
| Factor 3 Coordination of Activities  α=0.82 | | |
| SL3 T/L coordinate schedules | 1.03* | .87 |
| SL1 T/L arrange times for library use | .77 | .80 |
| | | |
| Factor 4 Traditional Cooperative T/L Roles  α=0.84 | | |
| SL7  T asks librarian for library resources for instruction | .93 | .87 |
| SL5  T/L discuss library materials needed for teaching | .74 | .80 |
| SL8  T/L divide responsibilities when working together | .63 | .68 |

*Note.* Items are arranged from highest to lowest for the pattern matrix. Higher values indicate a stronger correlation.

*In oblique rotations since the loadings are regression coefficients instead of correlations, values may be greater than 1.

Factor 2 correlated moderately to highly with four items SL9-SL12 on the pattern matrix with loadings from .45-.95, and substantially smaller correlations for other variables. On the structure matrix, the SL9-SL12 items displayed moderate to high correlations (.67-.88). The association among these items was joint planning and implementation of library lessons, and classroom instruction reflected in statements such as "planning objectives for lessons with the librarian," "implementing lessons with the librarian," and "integrating the library curriculum into my teaching." (These same items loaded highly on Factor 1 of the Frequency subscale along with three additional items, F2, F4, and F6). Factor 2 of the Importance to Student Learning subscale was labelled Course Integrated Instruction since the items were associated with collaborative practices in which classroom teachers and librarians integrate library curriculum and subject content.

Factor 3 was most highly related to SL1 and SL3 (.77 and 1.03 respectively) on the pattern matrix. These items also loaded highly on the structure matrix (.79-.84) along with SL2 and SL4, which loaded moderately on the structure matrix (.65 and .66 respectively) and cross-loaded with Factors 2 and 3. To reflect the content of items in this factor, the label assigned to Factor 3 was Coordination of Activities associated with practices of arranging schedules and organizing time and planning instructional activities.

Factor 4 was defined by three items, SL7, SL5, and SL8 (.93, 74, and .63 respectively) on the pattern matrix, and by an additional item, SL6 (.57), on the structure matrix, which cross-loaded on two other factors. The main implication of these items was librarians working with teachers to determine appropriate resources for instruction and to gather resources. As with the Frequency variables, these items represent traditional roles in which librarians worked cooperatively helping teachers. For example, statements such as "spend time with the librarian to discuss library materials (e.g. books, websites, references) needed for teaching," "asking the librarian for library resources to use in instruction," and "dividing responsibilities when jointly working (e.g. librarian gathers resources for a lesson that you will teach"  identify practices that have traditionally been carried out by librarians.

These practices represent a level of collaboration labelled Cooperation in the TLC Model. The label assigned to this factor corresponded to the label applied to Factor 4 of the Frequency subscale, Traditional Cooperative T/L Roles. This label was selected to provide greater clarity in understanding the content of the items which made up the factor. Table 6 contains structure coefficients and pattern weights. While no items with high loadings appeared in multiple factors in the pattern matrix, three occurred in the structure matrix (F2, F4, F6).

*Internal Consistency*

Internal consistency of the TLC II Survey was determined using Cronbach's alpha reliability coefficients in SPSS 15.0. Results are shown in Table 8. The overall scale alpha for all 16 items for Frequency was 0.92. The overall scale alpha for the 16 items in Importance to Student Learning was 0.93.

Table 8   Alpha Reliability Coefficients

|  | Frequency | Importance to Student Learning |
| --- | --- | --- |
| Overall alpha | 0.92 | 0.93 |
| Course Integrated Instruction | 0.87 | 0.86 |
| Integrated Curriculum | 0.93 | 0.93 |
| Coordination | 0.87 | 0.82 |
| Traditional Cooperative T/L Role | 0.81 | 0.84 |

## Discussion

This study explored teachers' perceptions on teacher and librarian collaboration on an instrument designed to reflect various collaborative practices between teachers and librarians (TLC-II Survey). Four factors emerged from the factor analysis, which resembled the facets postulated in the TLC Model. The TLC-II Survey will require further preparation before widespread distribution, however. For example, the Coordination of Activities scale will require additional items for stability. The other factors may also benefit from additional items and rewording of items to improve internal consistency. However, since the self-report instrument typically takes only about 15 minute to complete (a positive feature given the limited time teachers and librarians have outside the classroom), care will be needed in revising the instrument to ensure that parsimony and brevity are maintained.

Several important limitations should be noted. Only teachers' responses were reported, and while it is important to examine teachers' perceptions about teacher and librarian collaboration, librarian responses are equally valuable. Future studies will be needed to examine a sufficient number of librarians to compare teacher responses to librarian responses on frequency and importance of teacher and librarian collaboration. A second important limitation is that the instrument may not be representative outside the community in which it was used, and caution should be used in interpreting results to broader populations outside the southwestern or in rural communities.

The TLC-II Survey may be a valuable tool in assessing the types of collaborative endeavors that occur between teachers and librarians, and may help determine types of teacher and librarian collaboration that improve student learning.

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*Biographical Notes*

Patricia is an assistant professor at the University of Arizona School of Information Resources and Library Science.  She recently received a $300,000 grant from IMLS to conduct research on "The Effect of Teacher and Librarian Collaboration on Science Information Literacy of Latino Students." Patricia received a doctorate from Stanford University.

## Statement of Originality

# The important role of information literacy and learning in the development of lifelong learners: How well prepared are our teachers and students?

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*There have recently been increasing numbers of published articles lamenting school students' lack of information literacy skills. All strongly state the urgent need for improvement. The problem may arise from classroom teachers' lack of knowledge of information literacy skills and their related pedagogical practice but there is little research. This presentation reports on a project, involving a cluster of New Zealand schools, which investigated both teacher's and students' understanding of information literacy and classroom practices. The results have established the need for better teacher understanding and practice. One solution will be to trial appropriate professional development.*

Information literacy; lifelong learning; improving classroom practice

## Introduction

The recent, rapid growth and enthusiastic uptake of the internet in education, with the corresponding avalanche of available information, has seen a much wider understanding of the importance of information literacy in the academic community. Until about ten years ago, journal articles reporting on the levels of information literacy skills in school students were all written by tertiary librarians or academics in tertiary library and information faculties (Bruce, 1997; Bruce, Candy & Klaus, 2000; Doyle, 1994; Moore, 1999; Todd, 2000). Information literacy development was not addressed in any other arena. Today, academics from a variety of disciplines, and others from global organisations such as UNESCO (2006) have joined librarians in writing about the need to improve students' information literacy development (Combes, 2006; Walraven, Brand-Gruwel, & Boshuizen, 2008).

The following definition of information literacy is accepted by many organisations (Association of American Colleges and Universities, 2002; Australian School Library Association, 2001; Education Review Office, 2005; Ministry of Education and National Library of New Zealand, 2002) and has been used throughout the project described in this presentation.

> To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. Information literate people are those who have learned how to learn. *(American Library Association, 1998).*

Students need to use a great number of skills when they are processing information. To complete assignments successfully, students need to define their information needs, formulate key questions and know how to locate, evaluate and use information from many sources including a variety of online resources. They need to be aware also of issues relating to the ethical use of information, such as

copyright and plagiarism.  Students who have been taught how to use a model or framework when carrying out such assignments will almost always be more successful than those with no such guidance (Kuhlthau, 2004; Todd, 2003a). Those who have not been taught the skills or provided with a framework for their research or inquiry often resort to copying and pasting material (Hipkins, 2005; Kuhlthau, Maniotes, & Caspari, 2007; Moore, 2002; Todd, 2003b; Walraven et al., 2008).

While the literature highlights students' lack of information literacy skills, there is little work addressing reasons for this situation.  Few researchers, for example, query how classroom teachers teach the skills or whether they teach them at all. Researchers such as Walraven, Brand-Gruwel and Boshhuizen (2008), working in the Netherlands point to teachers' lack of knowledge and their assumption that students will develop this skill "naturally" (p. 623). They also note, in their review of the literature, that information literacy "has been given little attention in schools" and is "rarely embedded in curricula" (p.624 ). Kirschner, Sweller & Clark  (2006) state that skills need to be taught and that  "minimal guided instruction is likely to be ineffective" (p. 76), while Henri (2004) and Cass (2004), both from Australia, have pointed out that all classroom teachers need professional development in this area.

There is some evidence though, suggesting that teaching for information literacy, if the teachers have been appropriately trained, can be very effective. Lance (2005, 2006, 2007) and Todd (2003), working with schools in USA, found that explicit teaching of skills, by trained school library teaching staff, makes a positive difference to student learning outcomes. A small action research project, carried out at a Wellington, NZ, high school, also demonstrated that careful and planned teaching for information literacy, does indeed make a difference (Hannah, 2005).

Information literacy development is also strongly linked to the development of life long learners, a common aim for many countries (Bruce, Candy, & Klaus, 2000). According to Bryce & Withers (2003), schools with a focus on lifelong learning should also have a strong focus on information literacy development. This, as Doyle (1994) points out, "is central to all successful learning and, by extension, to all successful living" (p. 44). de la Harpe & Radloff (2000) assessed the characteristics of lifelong learners and described a number of information literacy strategies and skills that students need to develop in order to become effective learners. Bruce (2002) also refers to information literacy as the 'catalyst' needed to transform 'the information society of today into the learning society of tomorrow" (p. 4). In Singapore the government sees information skills as important to the Singapore economy, particularly with the growth of lifelong learning and knowledge-based industries (Hepworth, 2000).

*The New Zealand experience*

The recently published New Zealand Curriculum (Ministry of Education, 2007) emphasises the importance of lifelong learning and the Vision, (p.8), lists the attributes of lifelong learners. Such learners are "literate and numerate, critical and creative thinkers, active seekers, users and creators of knowledge and information decision makers". It can be seen that many of the skills underlying these attributes of lifelong learners are information literacy skills, even though this is not stated.  If New

Zealand schools are to develop lifelong learners, then these learners must develop good information literacy skills. The New Zealand government, while not explicitly linking information literacy with lifelong learning, does appear to appreciate the need for information literacy development. The Digital Strategy (Ministry for Economic Development, 2005), for example, aims to provide all "New Zealanders with …the confidence to find and use the information they need" while the Ministry of Education's (2006) Enabling the 21$^{st}$ century learner: An e-learning action plan for schools 2006-2010 states that there will be support for a focus on teacher professional development in information literacy development. While this has yet to eventuate, it does acknowledge the need.

There is evidence, in the meantime, that New Zealand students are not developing information literacy skills. Results from the New Zealand National Education Monitoring Project (NEMP) (Flockton, Crooks, & White, 2006) suggest that the principles and goals of information literacy are not actually widely understood, supported or practised by the teaching profession. This project began in 1993 to assess and report on the achievement of Years 4 and 8 primary school students in New Zealand across all areas of the curriculum. Information skills were tested in 1997, 2001 and 2005 and analysis of the results found that there was little evidence of any change in the ability of year 4 and year 8 students to find and gather information between 1997 and 2005. Concerns listed in the 2006 report included the facts that more than 50% struggled to ask two or three 'strong' questions for an inquiry, even when working collaboratively. Students also lacked skills of discernment and discrimination in their use of internet information.

It is possible that this situation could improve if teachers received targeted training in how to teach these skills. Results from Slyfield's (2001, p.48.) survey of New Zealand schools found that "90% of secondary schools indicated that less than half their teachers had taken some form of professional development relating to information literacy". She concluded that the research "showed a strong need for professional development for teachers…relating to information literacy" (p. 53). Hipkins (2005), when investigating 'research as a student learning activity' in six Wellington, New Zealand secondary schools, reports that students felt teachers had not taught them the skills they needed to carry out their own research projects. She also observed that much of what was termed research actually consisted merely of "information retrieval and repackaging" (p. 21).

The researcher was very pleased to become involved in the research project described in this presentation. This involves the collection of baseline data to assess teachers' and students' current understanding and practice of information literacy in order to establish whether or not both teachers and students in the schools have a good understanding of information literacy and the extent to which teachers are developing their students' skills. In future stages of the project, professional development will be designed, delivered and evaluated for teachers' and students' improvement of both knowledge and practice.

**Method**

*Context*

Three schools, situated in the same Auckland suburb, formed a cluster and successfully applied to the Ministry of Education to obtain an Extending High Standards Across Schools (EHSAS) contract for three years. The cluster's stated aim is to empower students to become independent learners by placing the learner at the centre of the educational process with the focus on developing a policy for information literacy development school-wide, thereby extending creative and critical thinking skills. In the second phase of the project, professional development will be designed, delivered to teaching staff and evaluated. Each school has nominated two lead teachers to coordinate the current project which entails the collection and analysis of baseline data to establish the need for professional development. The gathering of further data in the second phase will allow for more statistical analysis to be carried out.

*Participants*.

A. coeducation intermediate school (Years 7 and 8 with students of 11 and 12 years of age),
B. state girls' high school Years 9-13  (students 13 – 17 years of age).
C. integrated (Catholic)  Years 8 – 13 girls' school (comprising both intermediate and high school age students from 11 to 17 years of age)

There were 121 female and 27 male teachers involved in the project. The gender distribution is not surprising given that the high schools are girls-only schools. The majority of the teachers, 60%, were aged 30-49 while a quarter were over 50 years of age and the remainder under 30 years of age. There was an even spread of the years respondents had been teaching, with most teaching for five – 19 years. 86% had trained in New Zealand while the remainder were trained in UK, Australia, Canada, South Africa, India or Fiji. Those teaching at high school level represented all subject areas taught at the two secondary schools with the majority teaching subjects such as English, 41.4%, mathematics, 37%, science 22% and social sciences 14.4%.  These figures include those teaching at the intermediate level which was organised like the secondary schools with teachers specialising in subject areas.

*Design*

| Feb-April 2008 | Online questionnaires completed by participants | Interviews | Focus group discussions  (8 groups) | Documentation |
|---|---|---|---|---|
| Students Years 7-10 | School A:  523,  years 7 & 8<br>School B: 275,  years 9 & 10<br>School C: 130,  years 8 & 9<br>928 submitted | | School A: year 7 & year 8    x2<br>School B: year 9 & year 10   x2<br>School C: year 9 x4 | Assignment work sheets |

| Teaching staff | Teaching staff from all schools (200) invited to complete online questionnaire. 148 (74%) submitted | | | School A: Inquiry Process from classroom walls School B: Inquiry process for possible use with cluster |
|---|---|---|---|---|
| HoDs | | Heads of Departments invited to participate School A: 5 School B: 5 School C: 4 | | |

*Table 1: Design of project*

The project comprised a mixed method design with the collection of quantitative data followed by the collection of qualitative (Creswell & Plano Clark, 2007). Descriptive data were collected using questionnaires, interviews, focus group discussions and documentary data involving information literacy development and practice. Documents included worksheet templates, policies if any and departmental planning if any. Quantitative data using questionnaires were collected from those teachers and students involved in the project. In the intermediate school, data have therefore been collected from all staff and students. In both the secondary schools, one of which has an intermediate department, data have been collected from all teachers and from students in years 7 – 10 (11years of age to 14 years of age). (See Table 1).

*Procedures*

Anonymous, online questionnaires were used with both teachers and students and were trialled using 2007 year 10 students who would not be involved in the project, and with teachers who knew they would not be returning to the schools in 2008. Both questionnaires used Likert-scale questions to gauge frequency or power of response. Open-ended questions were also included where, for example, respondents were asked to supply the attributes of an information literate person and, in a later question, to explain details of the model of information literacy processing that they used.

The term information literacy was used in this project as it is the term found in official documentation (Education Review Office, 2005; Ministry for Economic Development, 2005; Ministry of Education, 2002, 2004, 2006; Ministry of Education and National Library of New Zealand, 2002). Care was taken in both the teachers' and students' questionnaires and during interviews and discussion groups to link the term information literacy with other, possibly more recognisable terms, such as research and inquiry, commonly used in the schools. As these both involve the use of information literacy skills, it was hoped that participants would better understand the questions.

Qualitative data were also gathered from voluntary interviews held with heads of departments (secondary schools) and team leaders or year level coordinators (intermediate school). They were therefore each responsible for between four and ten other teachers, representing, in all, around 70 teachers from most subject areas. The questions used in the interviews were designed to explore responses to parts of the questionnaire in order to gain a better understanding of professional develop needs. Interviewees were asked about their perceptions of information literacy and about their teaching practices concerning information literacy development. They were also asked to discuss any faculty policies and practices concerning information literacy.

Eight focus groups discussions were held, with students from year seven and year eight at the intermediate school and years nine and ten in the high schools. Students volunteered to attend when asked by the schools' project leaders, providing their parents had given written consent. Student were asked about their understanding of information literacy, about information processing models they used at school and about how they learned various skills.

The findings reported here are preliminary. Open-ended questionnaire responses and interview and focus group responses have been coded and sorted and further analysis of qualitative data is currently underway using NVivo7.

Triangulation was achieved through the collection and analysis of data from different and separate sources of evidence. Teaching staff self-reported through the use of the questionnaires, heads of departments have reported on teacher practice during interviews, students have reported on their own understanding and on the model of information-processing their teachers use in class. The documentation supplied examples of teachers' classroom assignments current information processing models in use.

## Results and discussion

The response rate to the teacher questionnaire was high with 148 responses from a total of 200 teachers at the three schools (74%). This was probably partly because the principals had carefully explained the aims of the project to staff and to the use of the online questionnaires. Teachers commented that they found this convenient as they all have laptops with wireless connections and so were able to complete the questionnaire whenever and wherever they found some time. Other commented included "I have lost some skills in writing for any time with a pen rather than with a keyboard" and that I "may have given much shorter answers if completing a conventional hard copy questionnaire".

928 students completed the online questionnaire, 523 from years seven and eight (11 and 12yrs of age), 384 from Year nine (13 yrs of age) and 21 from Year ten (14 yrs of age). Students completed the questionnaire in computer laboratories under supervision of their teachers who had been instructed not to allow conversations between students and not to offer advice or to provide answers.

The findings address those questions in the teacher questionnaires which are most relevant to gauging teachers' understanding of information literacy, their classroom practice, skills assessment, teaching of skills and future developments. The interview questions explored these aspects in more depth. Student findings concentrated on questionnaire responses which indicated students' understandings, knowledge and classroom practice. The student focus group discussions explored these findings in more depth.

*1. How would you describe an information literate person?*

*Questionnaires.* Teacher and students responses to this question were coded and sorted according to the definition given at the start of the presentation. When asked to give the attributes of an information literate person, out of 128 responses, 23.4% had a focus on ICT, 30.4% had only one attribute (finding information), 10% supplied reasonable details but only 2.3% of responses demonstrated a full understanding as measured against the chosen definition. 7% of the responses had nothing to do with information literacy.

All but two students responded to this question if only to state that they did not know (42.2%). Almost the same percentage, 43%, gave an incorrect answer. The remaining 15% were only able to describe one or two aspects related to information literacy, usually finding information, and of those several associated information literacy only with ICT. The very small number (two only) of those who did not respond, contrasted with the large number of nil responses for other questions. Perhaps the position of this question near the beginning of the questionnaire accounts for the very low nil response as students were more enthusiastic to respond.

*Interviews.* When asked in the interviews to describe an information literate person, most teachers gave more informed responses than was apparent from the questionnaire responses. This was perhaps due to their greater teaching experience since they did hold positions of responsibility. Three replies were mostly concerned with the use of ICT rather than the use of a wide range of resources from all sources. Two teachers also emphasised the importance of recognising the need for information and 'articulating what it is they want to find out'. One teacher in particular, head of a large department, gave a very detailed response, describing many skills students would need to have when finding information. This description though did not go beyond finding information. All the teachers interviewed thought information literacy development was very important. "I think there's too much information out there and they just don't know how to access it effectively, otherwise it's too overwhelming for them", "That's one of the most important skills for the modern age", "They're all vital skills you all need".

*Focus groups.* In six of the eight groups, none of the students understood the term information literacy but several students associated it with research or inquiry. Two groups from the same class at one of the high schools appeared to understand noticeably more about information literacy than those in the other groups. It transpired that their teacher had, since the questionnaires had been completed, begun a series of lessons involving the research process and had been teaching information literacy skills.

## 2. Classroom practice

*Questionnaires,* The majority of teachers indicated that they used an information processing model with their students when they were carrying out research assignments while the majority of students indicated they did not use a model when carrying research/ inquiry assignments, indicating a lack of communication between teachers and students. A chi- square test was calculated to look for differences across the groups and no significant differences were found.

A number of commonly used models were referred to in the questionnaire to help teachers and students answer the question, including two models which the lead teachers had said were used in the schools. However when teachers were asked to name (Fig.) and describe (Fig) the model they used, two thirds (66.8%) did not reply while 3% said they did not know. 11.4% gave irrelevant answers such 'Inspiration', 'my model' or 'dot and jot' while only 18.2% named a recognizable model.  Only 8% could fully describe the stages of the model they used. In reply to the same questions 80% of students did not reply. Only 3% named a recognizable model and even fewer, 1.4% (13 students), could describe the details of the model they named.
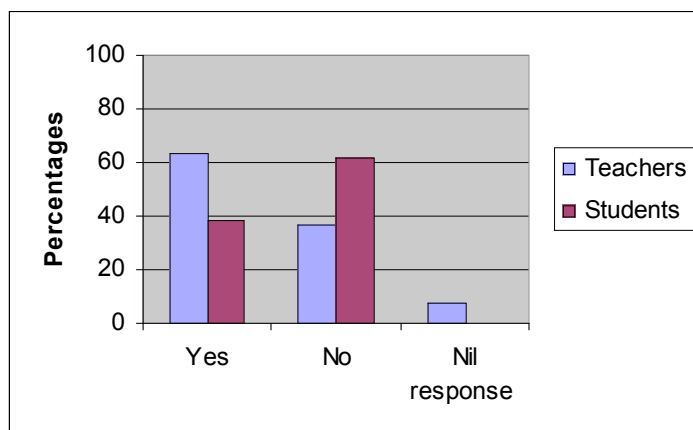


*Fig. 1. I use a model with my students when they are carrying out research/ inquiry assignments n=148*
*I use a model when completing research/inquiry assignments n=921*
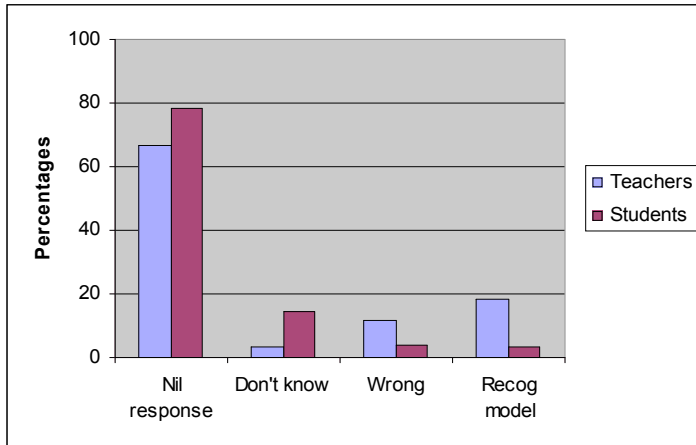
*Fig. 2. The name of the model I use with my students n=148*
*I use when completing a research/ inquiry assignment n=921=*
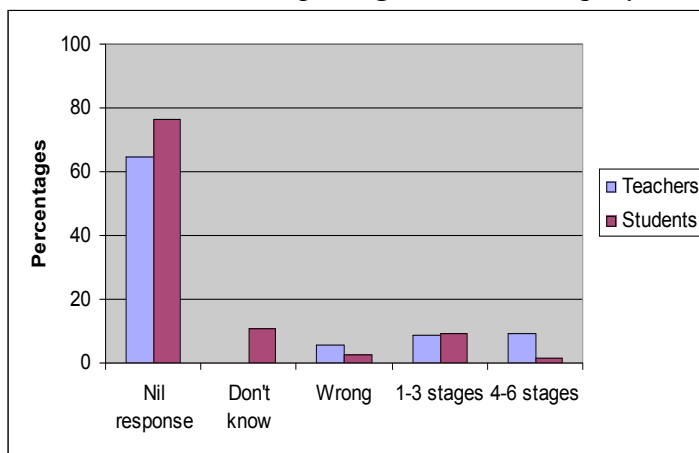


*Fig. 3. The stages in the model I use with my students n=148*
*The stages of the model I use when completing a research/ inquiry assignment n=921*

*Interviews and focus group discussions.* These questionnaire findings were supported by teacher and student responses during the interviews and focus group discussions. All the teachers at one school said they did use a model and four named the model for inquiry learning that the lead teachers had designed for school-wide use. None, though, could clearly name or describe the stages. Comments included "Can't remember the details", "The language keeps changing like immersion became ignition'', "I use my own model. Each term I figure out what worked well and what didn't and discard any, just improve it really". The lead teachers were surprised that these teachers seemed unaware of the model, diagrams of which were in every classroom, particularly as teachers had had some training in using the model. It became obvious that, contrary to the lead teachers' expectations, the model was not being used in the way they had hoped or expected.

A similar situation was revealed with students from this school. Year seven students fresh from their former primary schools, were able to describe processes they had been taught to use at these previous schools and to refer to stages in the process such as defining or working out what they need to find out. Some referred to writing 'key questions' and using 'key words' when searching and to other skills. The year eight students from the same school, most of whom had attended the same primary schools as the year seven students, were not able to describe processes

and skills and appeared to have forgotten previously taught skills. At the same time, they did not understand and use their current school's process. The students' teacher was really surprised to find that these students appeared to be so unfamiliar with this process she had assumed was well known and practised in the school.

It was interesting that most teachers took it for granted that students coming to intermediate or secondary schools already have good information literacy skills and do not check students' skills levels at the start of each year. Over half the teachers also thought the skills would develop naturally although, confusingly, 82% thought that the skills should be explicitly taught but presumably at previous schools or in other classes.

There was some evidence that explicit teaching of the skills may make a difference. This was seen in the replies from two groups of students from school B whose teacher had recently, since completion of the questionnaire, begun to teach them information skills and an accompanying process. These students, though, were surprised that they could use the same processing model in different subject areas, albeit with some small, appropriate adjustments. Other students who had not had any such teaching, did not refer to any process. Instead, they replied they would go straight to Google.

These are important findings as they have serious implications for the planned cluster-wide professional development. Those carrying out the professional development need to check that teachers really understand the process they are meant to teach. There is also a need for ongoing, professional development for teachers and it is also important to give students regular opportunities to practise the skills which can be forgotten if not practised regularly.

*3. Assessment of skills*

*Questionnaires.* Questionnaire responses indicated that 80% of the teachers in the survey never or rarely or only sometimes checked students' skills levels at the start of each year.
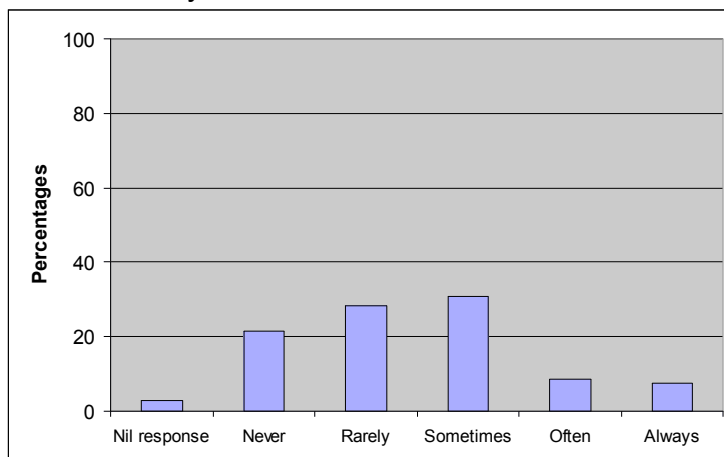


*Fig. 4. I check the information literacy skills of my students at the start of each year n=148.*

*Interviews.* The interview responses supported this finding.  None of the teachers interviewed checked the skills of students entering their schools although several acknowledged it would be a good idea to have such a system. Teachers commented that ''You learn pretty quickly, your form teacher does and tells you of any kids with special needs or abilities, yeah, and you sort of just case by case, whatever kid needs help", "No formal technique we use and this sounds horribly hit and miss, pretty much by the end of four weeks with those students I could give you a pretty good idea of their ability and what sort of input they've had".

When asked if there were any systems in place for assessing skills either at the start of the year or after assignment work, the teachers all thought their schools did not have any such systems nor did their own departments/ teams. Several mentioned assessment for content only. There seemed to be some surprise at the question.

*4. Skill use and development*

*Questionnaires.* Teachers demonstrated from their questionnaire responses that they had some understanding of various information literacy skills in that most respondents did not confuse them with library skills and 83% agreed that information literacy skills need to be explicitly taught. There appeared to be some confusion with ICT skills and information literacy skills as 25% agreed that ICT skills and information literacy skills were the same while 27% were not sure.

When asked how often they modelled a number of skills to students, including brainstorming, mapping and presenting information and finding information from books and from online sources,  around half (50%)  indicated that they did so often or always for most of these skills. The percentage of those modelling the use of online resources and of mapping and categorising information was a little lower at 42% and 44% respectively.

Students demonstrated some confusion when replying to similar questions about the use of ICT, when and how information literacy skills were used and information literacy skills and library skills.  Two thirds of students indicated that they either did not know, or agreed that information literacy was mostly to do with ICT only. Over 50% of students either did not know or agreed that information literacy skills were only used when completing a research/ inquiry assignment. More than 60% of students either did not know or agreed that information literacy skills were mostly about using libraries, in contrast to their teachers.
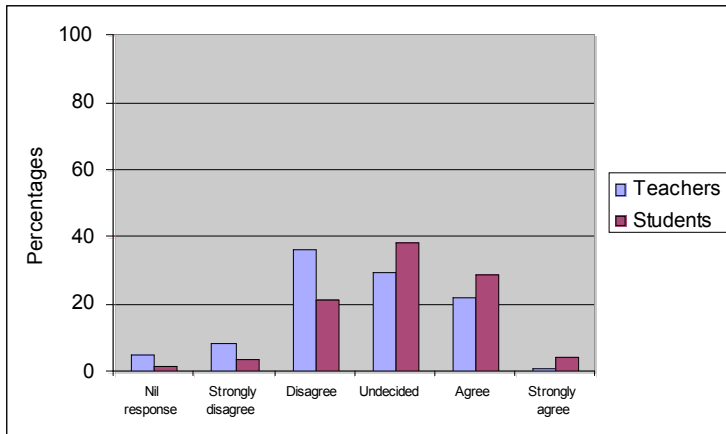
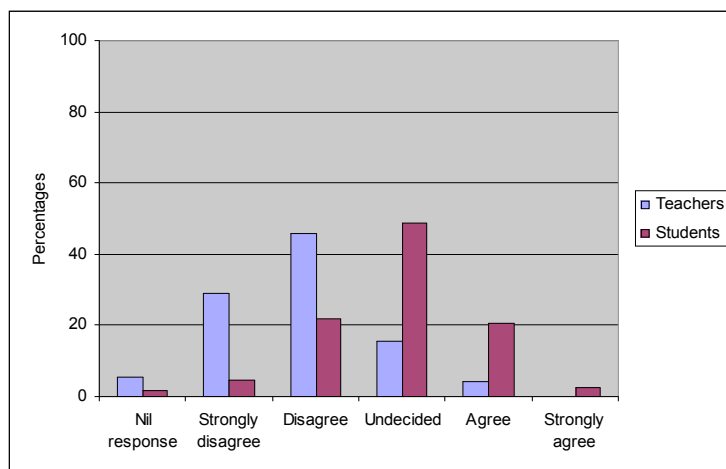*Fig. 5. Information literacy is mainly to do with ICT skills*



*Fig. 6. Information literacy skills are the same as library skills*

*Interviews and focus group discussions.* Teachers' questionnaire responses were not supported by responses from HODs who took part in the interviews. When asked 'How would you teach note taking, website evaluation, skimming and scanning?', only half the teachers could give a description, usually very vague of, for example, how they would teach note taking. One HOD thought a teacher in the department did explicitly teach skills but was not sure how this was done, and another gave details of teaching a dot and jot note taking method. *"Most of us use the sort of dot and jot"* but could provide few details. When asked about teaching website evaluation, one HOD thought it had been covered in the library and no teacher gave explicit details for teaching web site evaluation. Another HOD did comment that this '*might be good idea'*. Few teachers could give any details about teaching students how to skim and scan various texts or visual images.

Students in the focus groups were asked about the skills they might need to use when carrying out inquiry assignments or research assignments. Most could not think of many skills beyond using Google without much prompting. These responses indicate a need for more explicit teaching of the skills.

*5. Future developments*

The majority of both teachers and students agreed that it would be helpful to a common method or model to use when doing research.  The majority of teachers, 90%, also though it would be helpful to have more strategies for teaching the skills and 75% of students would like their teachers to provide them with more skills. This was upheld by interview responses where the teachers all said they would welcome some sort of school wide planning for information literacy development and would really welcome professional development. Comments included "That would be really useful actually", "Yeah there's got to be a cohesion in what's happening across the school".
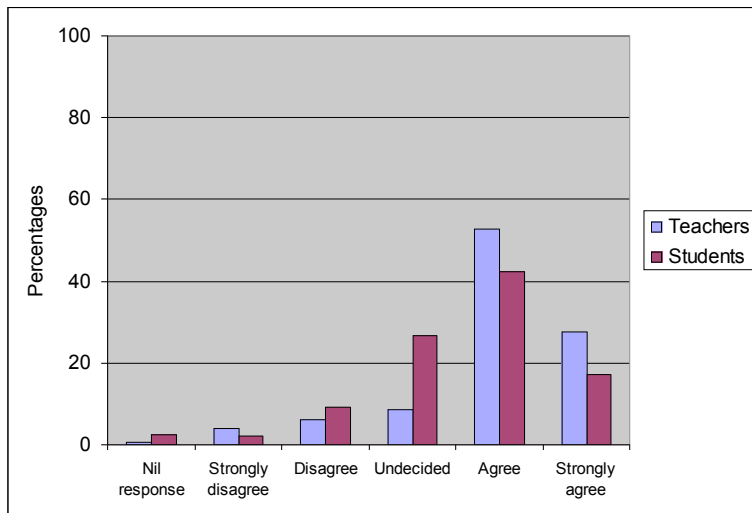


*Fig. 7. It would be helpful to have a common method/ process n=148*
*I would like to have a plan/model I could use when dealing with information n=921*
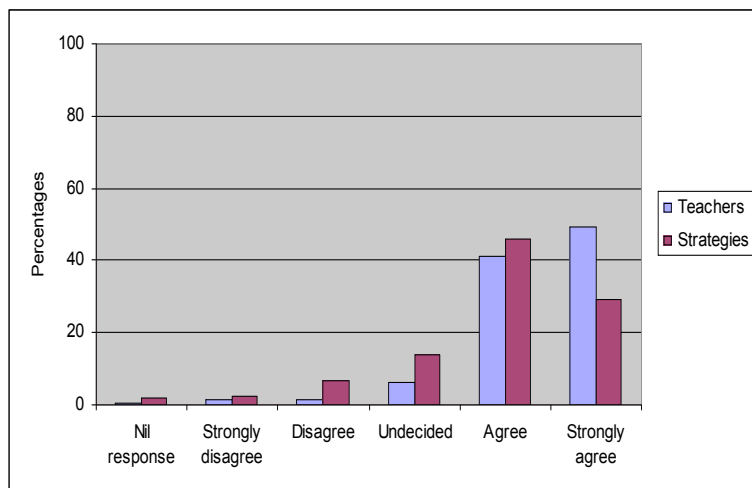


*Fig. 8. It would be helpful to have more strategies for teaching skills n=148*
*It would be helpful if teachers taught us more ways to deal with information n=921*

## Conclusions and recommendations

It appears from this evidence gathered from questionnaire, interviews, discussions and documentation that few teachers from the three schools have much

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understanding of the term information literacy but some appeared to understand the concept. The term information literacy was frequently misunderstood by both teachers and students who usually connect it with literacy or reading or information and communications technology (ICT) whereas it actually embraces both literacy and ICT. Unfortunately it is not so easy to find a better term.  It is also evident that a number of teachers in a variety of departments were not providing inquiry learning opportunities for students. There were several reasons given including time factors and that research was covered in other subject areas so they "didn't need to do it". Another reason given was that too many students simply "copied and pasted" but few teachers indicated that this might be because students needed more strategies to help them develop better skills.  Even so, it was interesting that teachers, through the questionnaire and during interviews, were enthusiastic about adopting school-wide methods of information processing and school-wide strategies for developing various skills and several stated how much they would welcome such training. Students too appeared to welcome the idea of being provided with more skills and processes for dealing with information.

The documentary evidence presented consisted of the inquiry model referred to above and several social studies units which involved students in research. None of these outlined methods of carrying out the research assignment.  The work sheets and planning used by the one class which was familiar with information processing were designed and used after the teachers had been interviewed but before the focus group interviews. No departments had policies relating to information literacy development.

*Implications for planning and design of professional development.*

After analysing the baseline data collected, it is clear that there are a number of points to be taken into account when designing and delivering appropriate teacher professional development in the next phase of the project.
- Teacher knowledge does not necessarily equate to improved teaching.
- Almost all teachers appeared to support the need for professional development in this area. Lead teachers need to sustain this positive attitude.
- The model to be used should be simple and easy for teachers and students to understand. Lead teachers need to make sure that all the teachers do fully understand the model and take ownership of the process.
- Lead teachers need to model teaching strategies to teachers, explicitly teaching the skills so that the teachers in turn can explicitly teach skills to their students.
- Some form of assessment should be put in place to ensure that students are gaining the skills.
- Schools need to write policies and then plan for school-wide information literacy development at all year levels.

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## Biographical Notes

Elizabeth Probert lectures at the Faculty of Education, University of Auckland in the School of Arts, Languages and Literacies. Elizabeth is a trained teacher and teacher librarian and works with teachers enrolled in the Graduate Diploma in Education, specialising in information literacy and information and communication technologies as well as school library and classroom resource development.

# Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author alone and has not been published elsewhere. All information and ideas from others is referenced.

# Information Needs and Information Seeking Behavior of Gifted Sixth Graders

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*Through questionnaire survey to three subject groups, the study investigates the perceptions of information needs and information seeking behavior of gifted sixth graders, their parents, and the regular sixth graders, and most interestingly their differences. School teachers were interviewed to examine their attitudes towards school library support for gifted education. As hypothesized, there exist significant differences in information needs and seeking behavior between the gifted and regular sixth graders, including the use of school libraries and other libraries. The results show that gifted sixth graders are in stronger demand for cognitive information. Parents are less aware of the perceived affective information need of and are less consulted by the gifted sixth graders. Teachers demand more library supports by common assent.*

*Academically gifted students; Information needs; Information seeking behavior; School libraries.*

## Introduction

While much attention has been paid to facilitate gifted education, few research discerns on information needs and information seeking behavior of academically gifted students, in particular those in the upper elementary education.

The paper explores the information needs and information seeking behavior of gifted sixth graders in separate classes in Taiwan. Through questionnaire survey to three groups of subjects, the study investigates the perceived information needs and information seeking behavior of gifted sixth graders, their parents, and the regular sixth graders, and most interestingly their differences. The study also examines the students' use of school libraries and other types of library. The gifted students' school teachers were interviewed to examine their attitudes towards library support for gifted education.

In this study, academically gifted sixth graders are students who scored 93 percentile or above on an intelligence test or whose GPA ranked top 2% in a regular class at their second

grade. A sixth grader in the study refers to a student at the sixth level of an elementary school, usually aged between 11 and 13 years old.

## Literature Review

The systematic study of gifted and talented children can date back to the early 1910s. Some school districts in United States designate the top 5% of children as gifted, usually having to score 120 or above on intelligence tests (Mitchell, 2008). Teacher training is an essential part for the success of gifted and talented education.

Wilson (1981) argued that the term "information needs" be supplanted by "information seeking towards the satisfaction of needs" (p. 664). He further divided the needs into three categories:

- physiological needs, such as the need for food, water, shelter etc.;
- affective needs (sometimes called psychological or emotional needs) such as the need for attainment, for domination etc.;
- cognitive needs, such as the need to plan, to learn a skill etc. (p. 663)

In our study, needs of information are also divided into three categories: need of physiological information, such as body growth; need of affective information, such as emotion; and need of cognitive information, such as learning and homework.

## Research questions

Research questions that guided the study are as follows:

1. The perceived information needs of gifted sixth graders. To what extend do they need

   1) physiological information,
   2) affective information, and
   3) cognitive information.

2. The information seeking behavior of gifted sixth graders:

   1) what are the preferred channels for seeking information,
   2) why do they select such channels,
   3) to whom do they turn for help while encountering difficulties, and
   4) how would they use school libraries for information seeking.

   5) The differences of perceived information needs and information seeking behavior between gifted and regular sixth graders; in particular, the differences in

      1) the extend of information needs,
      2) the selection of channels during information seeking,
      3) help seeking during information seeking, and
      4) the use of school libraries and other institutions.

   6) The differences in the perception of information needs and information seeking behavior between gifted sixth graders and their parents.

It is hypothesized that there exist significant differences in perceived information needs and information seeking behavior between the gifted and regular sixth graders, and in the perception of information needs between parents and their gifted sixth graders.

# Methodology

While most elementary schools assume the pull-out program[1], three elementary schools in central Taiwan provide separate classes for academically gifted students. Each school offers one class each for the gifted in the second and higher grades.

The authors targeted on the gifted sixth graders in separate classes as our primary subjects. In addition, one regular class of sixth graders from each of the three schools was randomly selected to form the comparison group. Since most sixth graders still relied on parents to provide guidance, facilities and transportation, gifted students' parents were also included in the study to analyze their observations of and probable roles in the gifted children's selection of information seeking channels. It is also interesting to explore the differences in perceptions between the gifted and their parents.

The authors designed a set of questionnaire according to the research objectives and questions. Most survey questions were measured by 5-point Likert Scale. The content validity of the measures was checked. Two professors in education departments examined the sample questionnaires and made suggestions for improve ments. A pretest was administrated to ten randomly selected sixth graders. The official questionnaire survey was administrated in September and October 2007 to the gifted sixth graders, their parents (father or mother), and the randomly selected regular classes of students in the three schools. Each subject received the same questionnaire with slightly different wordings. The questionnaires for students were administrated and collected in class with the presence of the teachers. By doing so, the researcher had an opportunity to answer the student's questions and avoided possible influence from parents. Afterwards, the gifted student took home the parent's copy of questionnaire to his/her parents of choice and brought the filled questionnaire back to the teacher in the next few days. Fortunately, all students responded (100%), with small gifts as incentives. The parents responded with a 96% return rate. Detailed sample distribution is shown in Table 1.

Table 1. Distribution of student and parent samples.

| | Gifted sixth graders | | Parents (of gifted sixth graders) | Regular sixth graders | |
|---|---|---|---|---|---|
| | Number | Gender* | | Number | Gender* |
| School A | 26 | 17 (M) 9 (F) | 24 | 25 | 12 (M) 13 (F) |
| School B | 20 | 11 (M) 9 (F) | 20 | 26 | 11 (M) 15 (F) |
| School C | 26 | 14 (M) 12 (F) | 25 | 39 | 22 (M) 17 (F) |
| Subgroup_total | 72 | | 69 | 90 | |
| Grand subject total | 231 | | | | |

* (M) represents males and (F) represent females

After completing a preliminary analysis of the survey, the researchers carried out in-depth interviews with the teachers of the gifted sixth graders. There were six primary class teachers for the three gifted classes, two for each. Five of them granted interviews. Their

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[1]  A pull-out program is one in which gifted children are taken out of their regular classroom for one or more hours a week and provided with enrichment activities and instruction. http://giftedkids.about.com/od/glossary/g/pullout.htm

teaching experiences ranged from two to nine years.  They all had experiences with regular classes before teaching the gifted ones.  They were first requested to complete the questionnaires and then to offer their insights of the information needs and information seeking behavior of their students.  After that, they were presented with the preliminary findings of the survey and solicited for further comments.

# Findings

Quantitative data were under analysis through SPSS 14.0.  Inferential statistical techniques employed included $t$ test, Chi-Square, ANOVA (with Scheffe post hoc test), and other appropriate techniques.  In each session, the data and analysis of the gifted sixth graders were first presented and discussed, followed immediately by results of significant comparison with the parents and the regular counterparts.

## *The information needs of gifted sixth graders*

The investigation of information needs was further divided into three categories: physiological, cognitive, and affective needs.  In general, the gifted students most widely perceived the need for cognitive information (an average of 4.08 on a five-point scale), followed by physiological information (3.96) and affective information (3.86).  An ANOVA and a  post hoc test result indicated that there existed significant difference between the average points of the three kinds of need ($F_{(2, 142)} = 96.957, p < .05$).  Cognitive need was perceived significantly stronger than the other two kinds of need.  Affective information need being perceived the least need might have a two-folded message: either the gifted students had less difficulties in the affective aspect, or their need was shadowed by the other two categories.

Table 2 also shows the average points of the gifted students' parents and those of the regular students.  The gifted sixth graders perceived stronger demands for physiological and cognitive information than did their regular counterparts ($t=8.19, p<.01$ and $t=7.48, p<.01$, respectively).  The parents and their gifted children' perception toward the information needs was quite similar.

Table 2.  Perceived information needs

| Categories of Information needs | Gifted sixth graders | Parents | Regular students |
|---|---|---|---|
| Cognitive Information | 4.08 | 4.14 | 3.31 |
| Physiological  Information | 3.95 | 4.15 | 3.19 |
| Affective Information | 3.85 | 3.78 | 3.88 |

## *Information Seeking Behavior*

The discussion of findings on the subjects' perceived information seeking behavior was further divided into two sections: motives for information seeking and selection of information channels.  The later included an analysis of preferences in information channels, information access, and help seeking.

*Motives for Information Seeking*

The students identified different extend of motives for different kinds of need. The frequency, percentage, and rank of the gifted students' motives for each category of information needs were listed in Table 3. The data demonstrated that the gifted sixth graders engaged in active learning, at least in their perception. Knowledge building, curiosity, and personal encounters of problems were unanimously ranked higher in motives behind all categories of information needs than were teachers' and parents' requests.

It is quite interesting to note that more parents inclined towards the view that their children sought physiological information due to personal encounters of problems, while the gifted remarked otherwise. Most gifted students perceived knowledge building and curiosity as the major motives for seeking such information. While the parents naturally assumed the gifted sought affective information out of teachers' requests, the gifted had different opinions ($X^2$ =9.00, $p<.01$).

Table 3. The gifted six graders' motives for information seeking

| | Physiological information | | | Affective information | | | Cognitive information | | |
|---|---|---|---|---|---|---|---|---|---|
| | Frequency | percentage | Rank | Frequency | percentage | Rank | Frequency | percentage | Rank |
| Knowledge Building | 48 | 67% | 1 | 55 | 76% | 2 | 46 | 64% | 1 |
| Curiosity | 34 | 47% | 2 | 49 | 68% | 3 | 34 | 47% | 2 |
| Personal Experience | 29 | 40% | 3 | 59 | 82% | 1 | 27 | 38% | 4 |
| Teachers | 17 | 24% | 4 | 4 | 6% | 5 | 30 | 41% | 3 |
| Parents | 8 | 11% | 5 | 5 | 7% | 4 | 27 | 38% | 4 |

Note: Data are arranged according the rank in physiological information.

*Selection of Information Channels*

When information needs arising, students consulted multiple channels for information seeking. The questionnaire provided ten alternatives plus an "others" for multiple responses: internet, libraries, science museums, television, newspapers or magazines, DVDs or VCDs, parents, teachers, peers (e.g., friends and classmates), elder siblings, and others.

The preferences of information seeking channels were shown in table 4. Not surprisingly, internet held the highest rank in preference. Yet, there were several minor details worthy of paying attention to. First, the percentage of selecting internet channel for satisfying cognitive need (76%) is much lower than that for physiological and affective needs (93% and 97%, respectively). Secondly, parents and teachers ranked second in providing information for cognitive need. "Libraries" channel mostly ranked in the middle: fifth for physiological need, sixth for cognitive need. Last but not least importantly, television ranked either second or third in all selections. To sum up, the gifted sixth graders tended to turn to authorities (parents and teachers) for cognitive information need, and media (TV and newspapers/magazines) and elder siblings for affective information. It is interesting to note that, in comparison with the other two categories of information need, parents were "demoted" in popularity as a resource to satisfying the gifted children's affective information need. The finding might explain why parents underestimated their gifted children's affective information need.

Table 4.  Selection of information seeking channels (the gifted)

| | Physiological Need | | Affective Need | | Cogitive Need | |
|---|---|---|---|---|---|---|
| | Percentage | Rank | Percentage | Rank | Percentage | Rank |
| Internet | 93% | 1 | 97% | 1 | 76% | 1 |
| Libraries | 43% | 5 | 24% | 8 | 39% | 6 |
| Science Museums | 40% | 6 | 18% | 9 | 21% | 8 |
| TV | 57% | 3 | 72% | 2 | 56% | 3 |
| Newspapers or Magazines | 40% | 6 | 64% | 3 | 46% | 5 |
| DVD or VCD | 29% | 7 | 25% | 7 | 19% | 9 |
| Parents | 63% | 2 | 38% | 6 | 63% | 2 |
| Teachers | 46% | 4 | 51% | 4 | 63% | 2 |
| Peers | 29% | 7 | 72% | 2 | 33% | 7 |
| Elder Syblings | 46% | 4 | 39% | 5 | 53% | 4 |
| Others | 10% | 8 | 1% | 10 | 8% | 10 |

Table 5 showed detailed data for the selection of channels among different subjects.  As expected, internet stands firm as the number one selection across all groups.

Table 5.  Selection of information seeking channels (All subjects)

| | Physiological | | | Affective | | | Cognitive | | |
|---|---|---|---|---|---|---|---|---|---|
| | The Gifted | The Regular | Parents | The Gifted | The Regular | Parents | The Gifted | The Regular | Parents |
| Internet | 93% | 72% | 80% | 97% | 94% | 90% | 76% | 71% | 86% |
| Libraries | 43% | 54% | 42% | 24% | 53% | 26% | 39% | 50% | 35% |
| Science Museums | 40% | 33% | 41% | 18% | 29% | 16% | 21% | 21% | 22% |
| TV | 57% | 48% | 48% | 72% | 67% | 72% | 56% | 47% | 41% |
| Newspapers / Magazines | 40% | 33% | 46% | 64% | 62% | 70% | 46% | 31% | 42% |
| Parents | 63% | 60% | 73% | 38% | 37% | 41% | 63% | 69% | 74% |
| Teachers | 46% | 42% | 42% | 51% | 58% | 75% | 63% | 59% | 51% |
| Peers | 46% | 39% | 35% | 39% | 39% | 36% | 53% | 46% | 32% |
| Elder Siblings | 29% | 30% | 19% | 72% | 30% | 49% | 33% | 59% | 28% |

*Evaluation of information sources*

The survey provided several criteria to choose from for evaluation of information sources and access, including accuracy, easy to find, search speed, data amount and "others." As shown in Table 6, accuracy was distinctly considered the foremost factor in information access by the gifted. "Easy to find" was, as expected, a runner up. The later criterion legitimized and further reinforced the use of web sites. While there was no significant difference in perceived selection criteria between the gifted and the regular sixth graders ($p > .05$), a cross examination of the gifted students' perception and their parents' observation showed otherwise.

Table 6. Evaluation of information source and access (the gifted sixth graders)

|  | Physiological Need | | Affective Need | | Cognitive Need | |
| --- | --- | --- | --- | --- | --- | --- |
|  | Percentage | Rank | Percentage | Rank | Percentage | Rank |
| Accuracy | 67% | 1 | 49% | 1 | 54% | 1 |
| Easy to find | 14% | 2 | 19% | 2 | 14% | 3 |
| Data amount | 11% | 3 | 14% | 3 | 17% | 2 |
| Search speed | 5% | 4 | 15% | 4 | 14% | 3 |
| Others | 3% | 5 | 3% | 5 | 1% | 5 |

Table 7 added the parents' observation of how their children selected information and demonstrated the difference between parents and the gifted. While the students laid great emphasis upon "accuracy" as they perceived, parents witnessed otherwise. Interestingly enough, parents' and students' top one and two criteria exactly reversed, except in cognitive need (see Figure 1 whereas "easy to find" is in blue and "accuracy" labelled in red). Parents declared that "easy to find" was actually the most prevalent criterion in their children's access of information.

Table 7. Criteria for evaluating information sources and access
(parents vs. the gifted sixth graders)

|  | Physiological Need | | Affective Need | | Cognitive Need | |
| --- | --- | --- | --- | --- | --- | --- |
|  | $X^2 = 30.601$ ** | | $X^2 = 22.971$ ** | | $X^2 = 13.165$ ** | |
|  | Parents | The Gifted | Parents | The Gifted | Parents | The Gifted |
| Easy to find | 46% | 14% | 44% | 19% | 38% | 14% |
| Accuracy | 23% | 67% | 14% | 49% | 39% | 54% |
| Search speed | 15% | 5% | 23% | 15% | 16% | 14% |
| Data Amount | 15% | 11% | 19% | 14% | 7% | 17% |
| Others | 1% | 3% | 0% | 3% | 0% | 1% |

* $p < .05$   ** $p < .01$

Note: Data are arranged according the parents' percentage in physiological information.
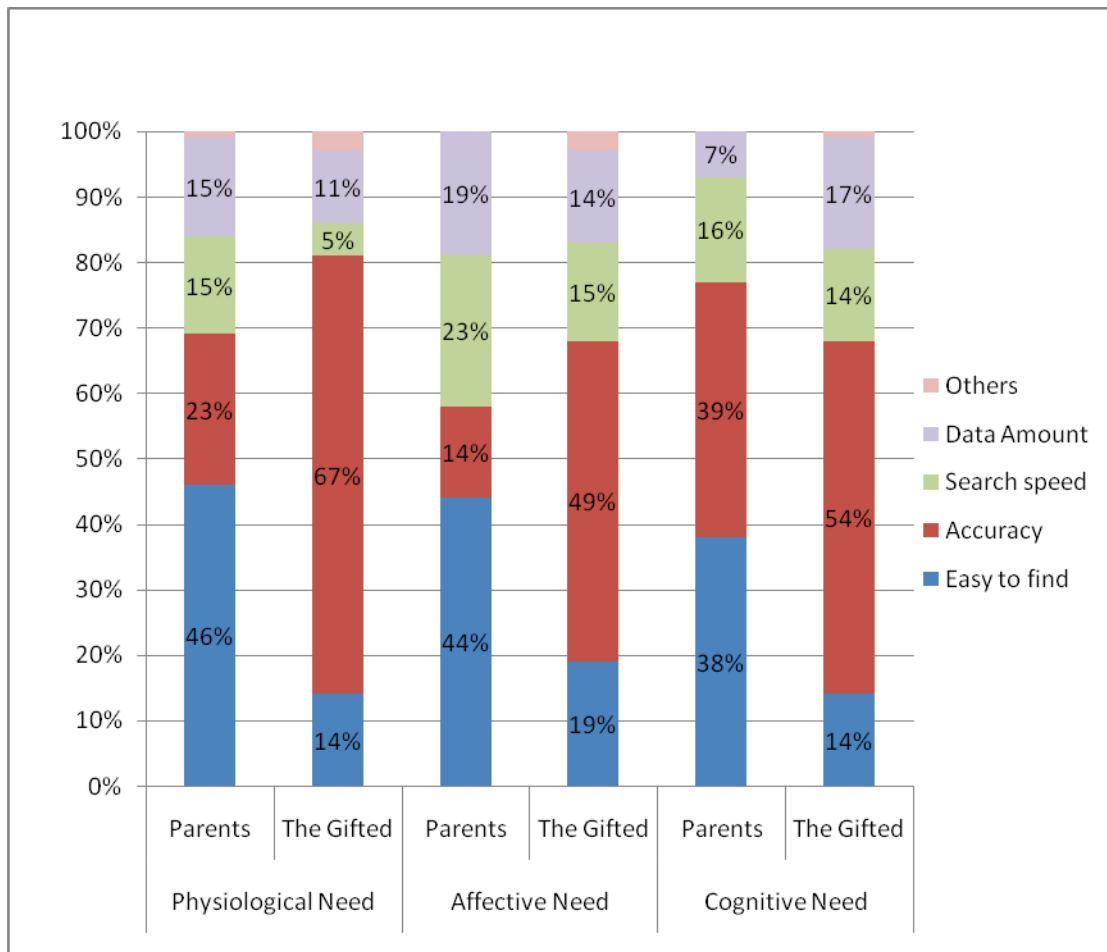
Figure 1. Selection of information (parents and the gifted sixth graders)

*Help seeking*

The survey attempts to find out to whom the students usually turned for help when encountering difficulties in locating appropriate information. The questionnaire provided several alternatives for multiple response, including father, mother, teacher, librarian, elder sibling, peer (e.g., classmate and friend), and "others." Table 8 shows the sources of help the gifted preferred.

Table 8. Help seeking (the gifted sixth graders)

|  | Physiological Need | | Affective Need | | Cognitive Need | |
|---|---|---|---|---|---|---|
|  | Percentage | Rank | Percentage | Rank | Percentage | Rank |
| Mother | 69% | 1 | 71% | 2 | 78% | 1 |
| Father | 63% | 2 | 60% | 3 | 67% | 3 |
| Teacher | 60% | 3 | 36% | 5 | 69% | 2 |
| Peer | 42% | 4 | 78% | 1 | 60% | 4 |
| Elder sibling | 29% | 5 | 53% | 4 | 42% | 5 |
| Librarian | 15% | 6 | 8% | 7 | 7% | 7 |
| Others | 13% | 7 | 15% | 6 | 10% | 6 |

Note: Data are arranged according to the rank in physiological information.

As shown in Table 8, parents monopolized the top ranks. The researchers have deliberately split "parents" into two alternatives: father and mother. It was hypothesized that mother would serve as a more probable candidate for giving help during information seeking, both because of general knowledge and more mothers than fathers responding our survey. The data indicated that mothers triumphed over Fathers by roughly six to eleven percent, not as much as expected by the researchers.

The pattern of help seeking in satisfying affective need was distinct from those in the other two categories of information need. The gifted were more inclined to seek help from classmates and friends for information. Unfortunately, librarians not only ranked almost the lowest but also drew extremely low percentage. Integrating this finding with the previous one about librarians, we might conclude that librarians were deemed a reliable source of information but their question-answering function was largely ignored. There was no significant difference between the gifted and the regular sixth graders in help seeking preference. The parents and the gifted students in general agreed with each other on this issue except in the affective category. Parents assumed a significant higher percentage of mothers being of help (88%) than did the gifted (71%), $X^2 = 6.66$, p < .05. It was highly probable that parents underestimated the power of peers, as revealed in our data. The gifted considered peers (classmates and friends) as a source of help more frequently than did their parents.

*Use of school libraries and external libraries*

The gifted sixth graders were significantly less enthusiastic in self-activated school library visits than were the regular ones ($X^2 = 12.439$, *p<.01*). Less than half of the gifted (39%) said they would initiate a visit to the school library. Parents, by contrast, overestimated their gifted children's interest in such visits, not statistically significant though. More than half of the parents (54%) believed the gifted would initiate a visit to the library by themselves.

When making a library visit, the gifted usually engaged in the following activities (in order of frequency): reading and using library collections (36%), checking in/out books (32%), reading newspapers or magazines (13%), loitering (11%), doing homework (10%), and searching for information (10%). All activities involved with computer or internet were not listed here because the three school libraries did not offer public computers. Most classrooms, however, provided computers and internet connection for teachers. Students could these computers with permissions. Since most activities the students engaged in a school library were reading and checking in and out books, only a few students would perceive any difficulties in using library services(38%). There was no significant difference between the gifted, the regular, and the parents for all above analyses.

Most students visited institutional or public libraries (78% of the gifted, and 67%, the regular) during weekends. The reasons for visiting outside libraries more often than did school libraries were listed in Table 9. The rank of the reasons was completely identical for both the gifted and the regular. More than half of the students chose to visit external libraries for better collections and longer open hours. The results should serve to draw our attention to the fact that school libraries ought to either enhance collections, if budget allows, or collaborate with nearby institutional/public libraries. What has been noticed was that parents

cared significantly more about modern facilities and pleasant environment ($X^2$=12.341, *p* <.01, and $X^2$=10.698, *p* <.01, respectively) than did the gifted.

Table 9.  Reasons for visiting institutional or public libraries

| | The gifted | | The regular | |
|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage |
| Better and more collection | 45 | 63%. | 54 | 60% |
| Longer open hours | 40 | 56% | 43 | 48% |
| Convenient Location | 37 | 51% | 41 | 46% |
| Modern facilities | 37 | 51% | 39 | 43% |
| Pleasant Environment | 29 | 40% | 29 | 32% |
| Dedicated staff | 15 | 21% | 16 | 18% |
| Teachers' request | 4 | 6% | 5 | 6% |
| Others | 6 | 8% | 4 | 4% |

Two of the three gifted classes administered class libraries of their own, which might reduce the students' need for school library visits.  Although all student respondents visited external libraries, the gifted (86%) had significantly greater awareness of reference librarians than did their regular counterparts (41%) and their parents (51%), $X^2$=34.083, *p* <.01 and $X^2$ =11.598, *p*<.01, respectively.  Most gifted six graders understood that reference librarians were available in public libraries for answering their questions.

*Teachers' perspectives*

Five teachers of the three gifted classes completed the questionnaires and accepted individual in-depth interviews.  The number was too few for the survey data to be valid for inferential analysis.  Some results were shown in Table 10 to illustrate the differences between teachers and the gifted.  The teachers perceived in higher average points the demands for physiological information.

Table 10.  Perceived information needs (teachers vs. students)

| Categories of Information needs | Teachers | Gifted sixth graders |
|---|---|---|
| Physiological  Information | 4.45 | 3.95 |
| Affective Information | 4.25 | 3.85 |
| Cognitive Information | 3.93 | 4.08 |

During the interviews, they were unanimous in the necessity of more and better library support for gifted students.  One teacher complained that "the school allocated more than abundant budgets on the handicapped, but none for the gifted."  Teachers usually maintained the class libraries through periodic fundraising or asking book donation from the parents.

School teachers may need to acquaint themselves with librarians and library services and be more knowledgeable about information evaluation.  Some of them were not aware of the

functions of reference librarians.  They realized the gifted relying heavily on internet for information but did not provoke any objections.  They noticed that their students frequently used web-based dictionaries and post questions on Yahoo Answers (Taiwan Regional Version).

## Conclusions and discussions

As hypothesized, there exist significant differences in information needs and seeking behavior between the gifted and regular sixth graders, including the use of school libraries and other libraries.  The gifted students' perception and their parents' assumptions and observations disagreed occasionally.

Cognitive need was perceived significantly stronger than were physiological and affective needs.  The gifted sixth graders perceived stronger demands for physiological and cognitive information than did their regular counterparts.  While the parents naturally assumed the gifted sought information out of teachers' requests, most gifted students perceived knowledge building and curiosity as the major motives.

Not surprisingly, internet held the highest rank in preference in information seeking channels.  While the students laid great emphasis upon "accuracy" in selecting and evaluating information sources, parents indicated "easy to find" as the most prevailing criterion.

Students preferred external libraries, such as public libraries or museums, to school libraries for better collections and longer open hours.  Parents cared significantly more about modern facilities and pleasant environment than did the gifted.  Librarians were deemed a reliable source of information but their question-answering function was not fully recognized.  School libraries need endeavor to raise students, parents, and teachers' awareness of their roles in question negotiation and answering.  School libraries ought to either enhance collection, if budget allows, or collaborate with nearby institutional/public libraries to facilitate gifted education.

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# Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the authors and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# The Information Search Process of English Language Learner (ELL) Students in a Guided Inquiry Project:
# An In-depth Case Study of Two Korean High School Students in the United States

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*This study seeks to understand the information-to-knowledge experience of English Language Learner (ELL) students in a Guided Inquiry project undertaken by the librarian and subject teachers. As a pilot study, it provides an in-depth examination of two Korean 11th grade students in a biology class of a high school in New Jersey, U.S. During the project, data were collected through questionnaire, surveys, search journals, search sessions, observation, students' papers, and interviews. The findings of this study will facilitate the understanding on the information seeking and knowledge construction process of ELL students so that school environments, including school libraries, can provide meaningful instructional and service interventions for them.*

*English Language Learner (ELL), Information Search Process (ISP), Guided Inquiry*


## Introduction

Immigrants with diverse linguistic and cultural backgrounds have been dramatically increasing in the United States in the last decade. According to the National Clearinghouse for English Language Acquisition (NCELA), total PK-12 enrolment has increased 3.66 % from 1995-96 to 2005-06 in the United States, whereas enrolment of students with limited English proficiency (LEP) has increased 57.17 % during the same period and becomes 10.29 % of the total number of PK-12 enrolment (NCELA, 2007). LEP students are enrolled mainly in large, urban school districts and a quarter of the 100 largest school districts have at least 15% LEP population (NCES, 2002).

The growing number of limited English proficient students has brought significant challenges to education environments, particularly low literacy level of adolescents, low rate of completing high school and providing diverse and meaningful learning experiences. Nationally, only 30 % of all secondary students read proficiently. Eighty-nine percent of

Hispanic and 86 % of African-American secondary students read below grade level (NCES, 2005). Only 4% of eighth-grade LEPs and 20% of former LEPs scored at the proficient or above levels on the reading in the 2005 National Assessment for Educational Progress. This shows that 96% of the eighth-grade LEP students scored below the basic level (Perie, Grigg, & Donahue, 2005). English language learner (ELL) students (31%) are more likely to fail to complete high school than native English speaking (NES) students (10%). Among ELL students, fluent English proficient (FEP) students (51%) show greater rate of completing high school than LEP students (18%) (NCES, 2004). Moreover, research suggests that linguistic and cultural diversity of ELL students strongly influence their learning experience in predominantly two ways.  First, they have double of the work of NEPs by learning English at the same time they are studying a subject area through English (Short & Fitzsimmons, 2007) and second, they  have different frameworks to interpret information due to their different linguistic and cultural backgrounds (Agosto & Hughes-Hassell, 2007; Agosto, 2001).

However, educational research on ELL students has mainly focused on reading comprehension and writing (Elley, 1991). Fewer studies have been conducted on ELLs at secondary level compared to elementary level (NREL, 2004), with even less focus on language speakers other than Spanish (Short & Fitzsimmons, 2007). Although research in library and information science has recognized the ELL population as a growing user group, it still focuses mainly on material provision especially for Hispanic students and few studies have been conducted on information seeking and use of ELLs in learning contexts.

This study aims to understand the information-to-knowledge experience of ELL students within a library-based research project implemented using a Guided Inquiry framework. Guided Inquiry, which is based on Kuhlthau's Information Search Process (ISP), is the systematic intervention of an instructional team consisting of the school librarian and subject teachers to enable students to construct deep understanding of a self-chosen topic from various information sources through curriculum based inquiry units (Kuhlthau, Maniotes & Caspari, 2007). The ISP model was first developed when Kuhlthau examined high school students' information search process to complete their research project and later verified and generalized through other sequential research (Kuhlthau, 2004). However, it has not been researched in the context of the growing number of ELL students in schools.

Various terms are used identify linguistically and culturally diverse students, including English language learner (ELL), English as a second (foreign or additional) language (ESL, EFL or EAL), limited English proficient (LEP), potentially English proficient (PEP) and language minority/international/immigrant students. The term English as a Second Language, *ESL*, emerged and was commonly used both educationally and linguistically through the 1980s, however the *ELL* has been increasingly preferred because students might be learning English as a third or fourth language (NREL, 2004). In this study, *English language learner (ELL)* is defined as students who speak a language other than English at home, including both LEP and former LEP. *Limited English proficient (LEP)* is defined as ELL students receiving specialized ELL programs without "sufficient mastery of English to meet state standards" (U.S. Department of Education, 2005, p.x), whereas *former LEP* (sometimes known as *fluent English proficient (FEP)*) is defined as ELL students "who have made the transition out of specialized ELL programs and into the regular course of study" (Short & Fitzsimmons, 2007, p. 17).

## Theoretical Frameworks

The theoretical frameworks of this study are Vygotsky's Zone of Proximal Development and Kuhlthau's Information Search Process, drawn from education and library and information science. These frameworks reflect a constructivist learning paradigm.

Constructivism is a theory of learning which describes what knowing is and how people learn. It considers human as goal-directed agents who actively construct new knowledge based on their prior experience (Bransford, Brown, & Cocking, 2000). Therefore, while behaviorists view learning as "a process of expanding the behavioral repertoire" (Phillips & Soltis, 1998, p.23), constructivists view it as "a self-regulatory process of struggling with the conflict between existing personal modes of the world and discrepant new insights, constructing new representations and models of reality…" (Fosnot, 2004, p.ix). The essential core of constructivism is that learners actively construct their own knowledge based on prior experience and prior knowledge. This concept is based on subjectivism and relativism assuming that while reality may exist apart from experience, people can know reality only through their unique experiences (Doolittle, 1999) and social reality is socially constructed (Berger & Luckmann, 1966).

## Vygotsky's Zone of Proximal Development (ZPD)

While constructivists such as Dewey (1933, 1944), Kelly (1963), Bruner (1973) and Piaget (1952) focused on the individual's inner process of knowledge construction, Vygotsky viewed an individual-in-context participating in an event as a meaningful unit of study rather than focusing on the individual (Miller, 2002). Vygotsky (1978) argued that learners are in a social context and learning occurs through the interactions with or within this social environment, which he called the Zone of Proximal Development. He emphasized that a child's ability should be measured not by his or her product in a certain moment, but by his or her potential ability or the process of change (Miller, 2002). Vygotsky (1978) defined the Zone of Proximal Development as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p.86). For example, a child can develop knowledge through the interaction with his or her mother in the Zone of Proximal Development. This interaction may enable the child to solve a problem which he or she cannot deal with alone. Conversely, if there is no help from a more capable person in the Zone of Proximal Development, even a potential child could remain in the existing developmental status.

## Kuhlthau's Information Search Process (ISP)

Influenced by constructivists, Dewey, Kelly, and Bruner, Kuhlthau (1991, 2004) developed the Information Search Process (ISP) viewing the information searching process as the process of construction. The ISP identified feelings, thoughts and actions according to users' six information tasks, identified as initiation, selection, exploration, formulation, collection, and presentation, during the information searching process (Figure 1). This model

| Tasks | Initiation | Selection | Exploration | Formulation | Collection | Presentation |
|---|---|---|---|---|---|---|
| **Feelings (affective)** | uncertainty | optimism | confusion/ frustration/ doubt | clarity | sense of direction/ confidence | satisfaction or disappointment |
| **Thoughts (cognitive)** | vague | | ⟶ | focused | increased interest | ⟶ |
| **Actions (physical)** | seeking relevant information exploring | | ⟶ | | seeking pertinent information documenting | |

Figure 1. Model of the Information Search Process (ISP) (Kuhlthau, 2004, p.82)

was first developed when Kuhlthau (1983) examined high school students' information search process to complete their project and later verified and generalized through other sequential studies (Kuhlthau, 1988a, b, 1989; Kuhlthau, Turock, George, & Belvin, 1990). Kuhlthau (2004) defined the Zone of Intervention in information seeking as "that area in which an information user can do with advice and assistance what he or she cannot do alone or can do only with great difficulty" (p. 129) modelled on Vygotsky's Zone of Proximal Development.

## Literature Review

*Previous Studies on Information Search Process (ISP)*

As a research-based and validated model showing the information search process from the initiation to the completion of a project, Kuhlthau's ISP model has been frequently used as a framework in many information behavior studies in learning and research contexts which cover elementary level through graduate and faculty level (e.g., Bilal, 2002; Harada, 2005; Jiao et al., 2006, Todd, 2006) and in working contexts (e.g., Bystrom, 2002; Vakkari, 1999).

According to Harada (2005), elementary school students showed emotional changes similar to the patterns in Kuhlthau's ISP model during their research process and keeping journals was considered as a significant tool through which to understand students' feelings and cognitive process. In addition, journals made students more confident about their ability to create meaning from information (Harada, 2002). Bilal (2000, 2001, 2002) examined $7^{th}$ grade students' cognitive, affective and physical behaviors while they used a Web search engine to perform fact-based research tasks, assigned research tasks and self-generated research tasks. Through this research, it is concluded that children browse less on the assigned task than on the fact-based task and in general they have less difficulty with the self-generated research task than with the others. Moreover, the importance of the focus formulation stage in the ISP model and instructional interventions was emphasized by Todd (2006) who studied middle and high school students' knowledge change through the curriculum in New Jersey schools.

Research based on the ISP model has been more actively conducted in college and graduate research contexts than in elementary and secondary school contexts. This research covers the research process of undergraduate students (Fister, 1992; Holliday & Li, 2004; Kennedy et al., 1999; Pennanen & Vakkari, 2003; Serola & Vakkari, 2005; Sihvonen &Vakkari, 2004; Swain, 1996; Vakkari et al., 2003; Yang, 1997), changes in relevance assessment during the research process (Anderson, 2001, 2005; Tang & Solomon, 1998; Vakkari & Hakala, 2000), library anxiety (Jiao et al., 1996, 2006; Jiao & Onwuegbuzie, 1997, 1999; Onwuegbuzie, 1997; Onwuegbuzie & Jiao, 1998, 2004) and document selection (Wang & Soergel, 1993, 1998) and use (Wang & White, 1995, 1999) by faculty and graduate students. In addition, the ISP model was verified in various contexts such as Ph.D. history students' research process (Cole, 1997, 1998), online learning environments (Byron, 1999) and group-based educational setting (Hyldegard, 2006). Collectively, existing research centering on the ISP model shows that it continues to be useful for explaining information behavior in information seeking tasks that require knowledge construction. The model is also a useful research tool for designing, framing and analyzing the investigation of information seeking behavior in complex tasks. In addition, the model continues to be useful for designing user centered information services and systems, particularly for students in inquiry projects.

*Previous Studies on English Language Learners (ELLs)*

Educational research on ELL students tends to focus on their reading comprehension and writing. Elley and Mangubhai (1983; Elley, 1991) showed that free voluntary reading helps ELL students improve their English and learning the primary language is a short cut to the second language. However, fewer studies have been conducted on ELLs at secondary level than at elementary level (NREL, 2004), with even less focus on other language speakers than Spanish (Short & Fitzsimmons, 2007).

Research in library and information science has recognized the ELL population as a growing user group. Dame (1994, 1995) suggested school librarians should foster a positive environment in the school library for ELL students through a welcoming place, collection in their native language, resources for teachers, collaboration with other agencies, multicultural activities and literacy activities. A few studies (Alexander and Morton, 2007; Naidoo, 2005; Filson, 1992) have suggested collaborative partnerships between school librarians and subject teachers for serving ELL students, however the role of the school librarian is limited to developing and providing multi-cultural and multi-language materials. Selnik (2004) and Bordonaro (2006) consider the library as a place for ELL students to learn literacy skills. However, research on ELLs still focuses mainly on material provision especially for Hispanic and few studies have been conducted on information seeking and use of ELLs in learning contexts. With educational systems across the world giving increasing emphasis to responding innovatively to needs of learners, increasing intellectual engagement and relevance, strengthening learning and teaching, and equipping students with the skills and knowledge—cognitive and cultural, social and linguistic—that help them learn deeply, it is timely to examine how ELL students engage with information to build new knowledge in the context of library-based research tasks.

## Research Objectives

The objectives of this study are: 1) to understand the information-to-knowledge experience of ELL students, who are engaged in a Guided Inquiry project, in terms of cognitive, behavioral and affective dimensions and 2) to explore interactions, if any, between ELL students' information-to-knowledge experience and their characteristics such as demographic, linguistic and cultural factors.

The specific research questions are:
I.  To understand the information-to-knowledge experience of ELL students, who are engaged in a Guided Inquiry project, in terms of cognitive, behavioral and affective dimensions.
    1. *Cognitive dimension*: What primary patterns, if any, do ELL students have in their thoughts (i.e. topic selection, focus formulation, knowledge building) during the research project?
    2. *Behavioral dimension*: What primary patterns, if any, do ELL students have in their actions (i.e. search terms, operators, selection criteria) during the research project?
    3. *Affective dimension*: What primary patterns, if any, do ELL students have in their feelings (i.e. emotional changes) during the research project?
II. To explore interactions, if any, between ELL students' information-to-knowledge experience and their characteristics such as demographic, linguistic and cultural factors.
    1. *Demographic factors*: What interactions, if any, exist between ELL students' information-to-knowledge experience and their demographic factors (i.e. age, gender, length of enrolment in the U.S. schools or the schools in other countries)?
    2. *Linguistic factors*: What interactions, if any, exist between ELL students'

information-to-knowledge experience and their language proficiency (i.e. self-rated English language proficiency, linguistic isolation of the household)?
3. *Cultural factors*: What interactions, if any, exist between ELL students' information-to-knowledge experience and their socio-cultural factors (i.e. primary language, origin of birth, ethnicity)?

## Methods

This study is an in-depth case study with multi-methods. With the growing interest in people's information seeking and use behaviors by researchers, a qualitative case study with a longitudinal dimensions and field study is considered necessary for eliciting richer understandings of the cognitive processes of information seeking and real experience (Dervin & Nilan, 1986; Kuhlthau, 2004). Since the 1990s, triangulation of research methods has been increasingly used (Julien & Duggan, 2000). As a pilot study for the dissertation, this study was conducted for the following purposes: 1) to test research design and research instruments, 2) to train the researcher in implementing research instruments in the Guided Inquiry context, and 3) to identify if potential patterns and interactions exist between the variables under study.

### Sample

As a pilot study, this research centered on an in-depth analysis of the information-to-knowledge experience of two Korean 11th grade students (17-year-old boys) of a high school in New Jersey. Their experience was tracked from the initiation stage to the completion stage of a Guided Inquiry project. Among the two participating students (S1 and S2), S1 took both biology and psychology classes and S2 took only the biology class. Both participants were born in South Korea. S1 had lived in China for 3 years (from 4th to 6th grade) to learn Chinese language and came to the United States 5 years ago (from 7th grade to current). S2 had lived in South Korea until he came to the United States 3.5 years ago (from 8th grade to current). They came to the United States separately from their parents for studying. The students were living in the same house with a Korean family consisting of married couple and their two sons, who were 2 year older and 3 year older than them. No one in the house can speak English very well (linguistically isolated household) and they speak only in Korean at home.

### Guided Inquiry Project: Scientific Literature Review

The high school chosen for this pilot study has a 10-year-old collaboration history, and has a well-developed instructional collaboration for the Grade 11 Scientific Literature Review, which requires students to conduct a scientific literature review of existing research about a topic in biology or psychology which is chosen by the student and approved by school librarians or the science teacher. The school librarian provides up to eighteen workshops as instructional interventions (Table 1) for students within the biology or psychology class time for nine weeks. The science teacher, as a content expert, guides students in building scientific knowledge of their chosen topic.

Students produce a research paper which contains a cove page with abstract, introduction, methodology, results of research, analysis of research, conclusion and references. They are required to use at least 12-16 sources (at least 6-8 introductory sources and at least 6-8 peer-reviewed articles). Introductory sources, including textbooks, encyclopaedia, newspapers, non-fiction works, and articles in reputable magazines, serve the purpose of enabling student to build their background knowledge, the vocabulary needed to search for scholarly journals and enable them to formulate the specific focus of their research. Peer-reviewed articles are required to be full text studies which are accessed in online

| | |
|---|---|
| Workshop 1 | The benefits of a scientific literature review |
| Workshop 2 | The student's assignment begins |
| Workshop 3 | Making it meaningful: Browsing databases |
| Workshop 4 | Creating and organizing the research folder |
| Workshop 5 | Researching the introduction |
| Workshop 6 | How to take notes from a general press article |
| Workshop 7 | How to write an introduction |
| Workshop 8 | Searching for peer reviewed studies |
| Workshop 9 | How to read and make notes from a peer reviewed journal study |
| Workshop 10 | How to write the methodology |
| Workshop 11 | How to write the results of research |
| Workshop 12 | How to use and create a table, chart, or graph for the research |
| Workshop 13 | How to write the analysis of research |
| Workshop 14 | How to write the conclusion |
| Workshop 15 | How to write the abstract |
| Workshop 16 | How to write the reference list |
| Workshop 17 | Creating a title and completing the cover page |
| Workshop 18 | Putting it all together to turn the Scientific Literature Review in to the teacher |

Table 1. Workshops for Scientific Literature Review project

databases provided by the school and in the school library or other research libraries. Students submit their first draft paper to get the school librarians' and science teacher's feedback on it and complete the project by producing the final paper with revisions and corrections. During the research process, students closely interact with school librarians and science teachers. After the completion of research, two grades are given on the final paper: a research grade given by the school librarian and a science content grade given by the science teacher.

*Data Collection*

Before the data collection, an authorization letter from the school principal, consent forms from the students' guardian and assent forms from the students were obtained. Data were collected through questionnaire, surveys (at the beginning, mid-point, and completion of the project), search journal, search sessions, observation, students' completed papers and semi-structured interviews with the student and the librarian.

*Questionnaire*. The questionnaire, administered at the commencement of the unit included questions about students' demographic information, origin of birth, the length of time living in the United States or other countries, the language(s) spoken at home, self-rated language proficiency in English and linguistic isolation of the household. *Linguistic isolation* is defined by the U.S. Census Bureau (2004) as living in a household in which all members aged 14 years and older speak a non-English language and also speak English less than "very well."

*Surveys*. The survey instruments used in this study were based on the Student Learning through Inquiry Measure (SLIM) toolkit (Todd, Kuhlthau & Heinstrom, 2005). These were administered at the three points (initiation, mid-point and completion) during the research project. The SLIM instrument asked the following questions:
  1. Take some time to think about your topic. Now write down what you know about it.

2. What is the name you have given to your paper at this time?
3. How interested are you in your topic? Check (✓) one that best matches your interest.
   1-not at all, 2-a little, 3-some, 4-a lot
4. How much do you know about your topic? Check (✓) one that best matches how much
   you know. 1-not at all, 2-a little, 3-some, 4-a lot
5. What do you find easy to do? Please list as many things as you like.
6. What do you find hard to do? Please list as many things as you like.
7. What did you learn in doing this research project? Please list as many as you like.
      Additional questions were added to the original SLIM toolkit in order to examine
students' feelings and concerns, during the project, caused by their limited English language
proficiency.
   1. How do you feel about your project? Check (✓) as many boxes as apply to you.

confident 😎 [   ] disappointed 😳 [   ] relieved 😃 [   ] frustrated 😓 [   ] confused 😟 [   ]

optimistic 🙂 [   ] uncertain 😕 [   ]   satisfied 😄 [   ] anxious 😣 [   ]    other _____
1.1 Why did you feel like that?
2. Are you worried about your English for doing this project?
   1-not at all, 2-a little, 3-some, 4-a lot
2.1 What concerns, if any, do you have with reading in English for the project?
2.2 What concerns, if any, do you have with writing in English for the project?
2.3. What concerns, if any, do you have with listening in English for the project?
2.4 What concerns, if any, do you have with speaking in English for the project?


*Search Journal and search sessions*. Throughout the inquiry unit, the students
were required to keep the search journal by recording the date, search words, source used,
place where they got the source, information intention and usefulness of each source. This
proved to be problematic for these students.  They easily forgot to keep search journals when
they searched for sources because the search journal was an additional workload which they
were asked to do by themselves throughout their research process. Therefore, when they
searched for peer-reviewed articles, search journals were replaced with search sessions. Their
searching was recorded by the screen capture recording software, *Morae*.


*Observation*. The researcher closely observed the students' research process as a
participant observer from the initiation to the completion of the project through documented
field notes. The observation mainly focused on students' progress, their interactions with
classmates and teachers and interventions of teachers during the project.


*Students' papers*. After the completion of their project, the students' papers with the
school librarian's comments were collected to see their information use, presentation,
demonstrated knowledge outcomes.


*Interviews*. The students and the school librarian were interviewed to further
understand the information search process of ELL students. The semi-structured interview
included the questions about their difficulties in general as well as those related to their
English language proficiency during the project and helps they needed and obtained to solve
those difficulties. The interview was conducted in English. The student was given the
interview guideline first and had five minutes to prepare the answers before the interview
started.
      Data collection was performed in clear, plain English for students of all abilities to
understand them. While answering the questions in the questionnaire, surveys, search journal

and interview, the participants were encouraged to ask questions to the researcher or the school librarian. When additional explanations were needed, the participants were allowed to communicate with the researcher in Korean which is their native language.

## *Data Analysis*

The collected data through multi-method approach was analyzed qualitatively. The researchers identified codes and categorized primary patterns through content analysis of all data collected through above-mentioned methods.

## Findings

### *Characteristics of Participants*

When asked to rate their English language proficiency by themselves(1-poor, 2-okay, 3-good, 4-very good), S1 rated "okay" in writing and "good" in reading, listening and speaking and S2 rated "poor" in reading, writing, and listening and "okay" in speaking. S2 showed lower English proficiency than S1 when he communicated with the school librarian and the researcher. While S1 tried to use and improve English, S2 was strongly attached to Korean culture and friends outside the school. As S2 dropped out between the mid-point and completion of the project, data about the completion process of S2 were not collected.

### *Cognitive dimension*

*Topic selection.* Students were required to choose a topic which was related to the subject (biology or psychology) and their personal experience. When the school librarian explained the project to S1, she used 'video game addiction' as an example of possible topic, because there was some indication that he was extensively involved in video games. He showed interest in the topic even though he had no idea further than that at this time. S2 in contrast had a difficult time choosing a topic because he was not sure how much the topic should be related to biology. He looked for the biology textbook and the titles of the example papers which had been completed by previous students displayed in the school library for current students. When S2 decided to study 'AIDS-HIV virus' for the project without expressing interest in the topic, the school librarian guided him to choose a topic of greater personal interest. He chose 'insomnia,' which he experienced one year ago. The school librarian asked several questions to figure out the causes of his insomnia and also see his life outside school.

Topic selection is one of very critical stages in the ISP. The school librarian carefully helped students decide if their chosen topics were appropriate (subject relatedness and personal experience/or interest) for the project and also doable for their abilities. Because of the lack of English proficiency, S2 had more limitations in choosing a "doable" topic even after he found a biology related interesting topic.

*Focus formulation.* Both students needed careful help in formulating the paper's focus, because there was limited time for the project and they quickly fell behind their planned schedule. The school librarian responded by providing some articles for them. However, both participants had difficulties in making links between the supplied articles and spent much time in understanding them. Although they were supposed to use only those related to their specific topic, the participants tried to use them all for their paper even by changing their intended approach because they had already spent too much time in reading

and understanding them. However, S1 said "it was really helpful because the studies she gave me at the very beginning gave me the direction of my research. At that time, I didn't have specific things I wanted to research. I just wanted something about game addiction and she gave me the direction."

Reading (and understanding), summarizing and analyzing were considered very difficult by the participants during the project. The lack of English proficiency made the students read articles very slowly and sometimes misunderstand them. Using an electronic dictionary made the process even slower. The difficulties in reading caused by the lack of English proficiency hindered the students in formulating a more specific focus as they interacted with the information.

The lack of English proficiency made the students have difficulties in summarizing. S1 said, "It's hard to read, highlight and take notes at the same time for summarizing." He preferred to do one thing at once, so he had to repeatedly read the articles to summarize them. S2 tended to read a whole article very carefully and summarized the all content of the article, which took lots of time. He highlighted every important sentence and took many notes although the school librarian suggested he highlight only what he was interested in. In addition to the lack of English proficiency, the broad topic without a specific focus made it hard for him to highlight a few key sentences. However, S2 said, "I want to cover as many things on insomnia as possible in my paper, because there should be many things to write. I had a hard time when I was doing a similar project on humanities one year ago, because there were not enough things to write." He was relying on the text rather than his understanding when he wrote a paper. That might be why he needed a broader topic to write enough pages of papers for the project.

*Knowledge building.* Although the estimated knowledge of S1 increased during the project (1-not at all, 2-a little, 3-some, 4-a lot) (Figure 2), his knowledge, expressed in the surveys in the mid-point and completion, dealt with similar content which he got to know from the introductory sources. They were mostly facts rather than explanations or synthesis. Even though S2 changed his topic between the initiation and the mid-point, the survey was conducted to both students when they had finished summarizing the introductory sources. Nevertheless, S2 answered he knew "2-a little" about his topic, while S1 answered "3-some." At the initiation of the project, the students estimated their interest on their topics as "3-some" of the participants, because it was self-chosen topics, and they estimated their interest as "4- a lot" after summarizing the introductory sources on the topics (Figure 3).

*Knowledge labeling (title).* The titles, which the students had given to their papers, changed through the research process and were analyzed according to the categories
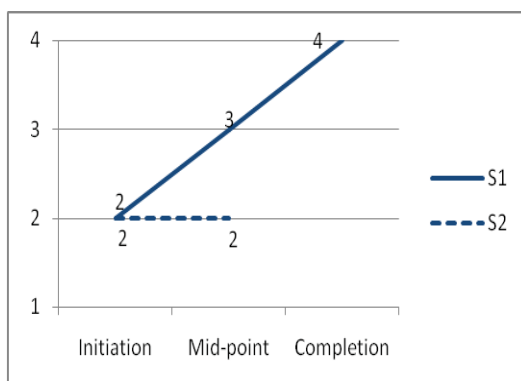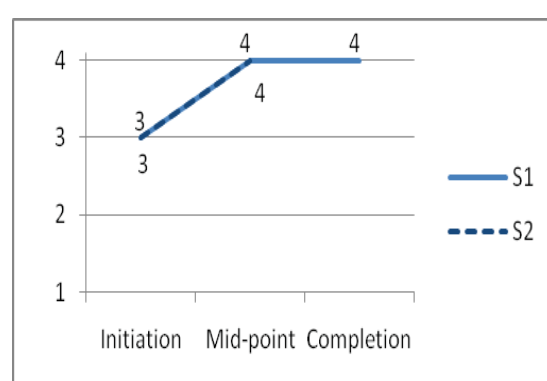


Figure 2. Estimated knowledge

Figure 3. Estimated interest

developed by Todd (2006) as follows:

1. General title (GT): A title that describes the project on a general, overall level.
2. Specific title (ST): The title brings forward a specific aspect of the project.
3. Artistic title (AT): The title is expressed in a creative or artistic way.

In the initiation of the project, S1 named his paper as *Psychology scientific literature* (GT), which was not his topic, but the project title. In the mid-point, he named it as *Is overuse of internet addiction or disorder?*(AT), because he wanted to demonstrate that he was not game-addicted through his research. However, after failing to find enough research to support his argument, his project focused on the characteristics of game addicted adolescents and he called it as *Gaming addiction* (GT). Although S2 changed his topic from HIV virus to insomnia after the initiation, he also showed the general title, *HIV virus*, in the initiation. Later, after getting background knowledge from introductory sources, he stated his title as *Causes and treatments for insomnia* (ST). Both participants established a more specific topic in the mid-point than in the initiation, however S1 went back to his general topic as he could not keep his intended focus because of the lack of research on it. According to Todd (2006), S1 showed *hourglass phenomenon*, however its relationship with language proficiency was not clear yet in this study.

*Knowledge presentation.* Students in the class were introduced to several ways to organize their knowledge in the paper, in the instructional session called 'How to write the results of research section.' The ways included: topicality, chronological, group characteristics, and research questions asked.  Most of the displayed examples of previous students' papers were organized by topicality or by group studied, with sub-titles. The school librarian said, "Students' ways to organize their knowledge in the paper show how deeply they know and understand about the topic." However, both participants of this study organized the summaries of the peer-reviewed articles in a chronologically order without using sub-titles. Although they knew that it was a better approach to organize topically or by group studied, they were in a hurry to finalize the project because they had already fallen behind, and as a result they simply summarized the articles individually and did not have a big picture about them. Even after the completion, S1 did not have any synthesized knowledge from the peer-reviewed articles. This could be a common phenomenon in the ISP even with native English speaking students. However, it seemed clear that time delays and difficulties in understanding, through the lack of English proficiency, prevented the participants from even trying to organize their ideas and understandings in a more sophisticated way.

In terms of writing, grammar was a big concern to both participants. S1 said, "When I handed in the paper, there were so many comments on the grammatical errors, which requires a long time effort to fix them."

## Behavioral dimension

*Search terms and operators.* Both participants used the same simple search terms through all information stages. Their search terms did not become more specific once they had established their focus.  S1 mainly used 'game addiction,' 'video game addiction,' 'internet addiction' as search terms and S2 kept using only 'insomnia' and browsed the retrieved sources to select those dealing with causes, symptoms or treatments of insomnia. With the same search terms, they only marked the checkbox for *magazine* when they searched for introductory sources and marked the one for *scholarly* when they needed peer-reviewed articles. This appeared to be the result of limited meta-language, knowledge of the specific technical vocabulary related to their topics. As they did not have enough vocabulary,

they searched for the articles with a broader search term so that they could select appropriate ones among those retrieved. This search pattern did not change over the stages. Their lack of English proficiency made them prefer high recall to high precision through the project process. Moreover, they did not use any related terms from the articles, which they already found and read, for the next search. S1 explained, "I don't have to change search terms because I could get enough number of articles in various online databases provided by the school with only a few search terms." They rarely used Boolean operators in searching. S1 said, "There will be no result with Boolean operators because it's too specific." The school librarian said, "Librarians were very active in helping the student locate articles. This might represent difficulty with finding the correct keywords and building upon those words."

*Selection criteria.* The participating students' selection criteria included title, length of an article and vocabulary level. When selecting articles from those retrieved, they checked the title first to see if an article was pertinent to their topic. Among those pertinent sources, they chose the short articles with easy vocabularies. Although, at the initiation, S1 answered that finding sources was generally easy to do in the research project, he mentioned that searching was hard at the mid-point of the project. He said, "Because English is not my mother language but a third language, the search process is harder. I need to find short articles with easy vocabularies about the topic… if I could do the research in Korean, I don't need to try to find short articles or easy vocabularies. I will only see if an article is interesting to me or not."

## Affective dimension

*Emotional changes.* The students showed emotional changes throughout the research process (Table 2). In the initiation of the project, S1 felt confused, uncertain and worried because he did not know much about his topic and he was worried about the quality of his performance on this project and S2 felt uncertain because he really did not have any idea what to do for this project. In the mid-point of the project, S1 felt optimistic because he had finished finding and summarizing the introductory sources and he only needed to write the introduction part of the paper and find peer-reviewed articles. However, at the same point, S2 felt anxious about this project because he could not find appropriate introductory sources about his topic. In the completion of the project, S1 was confident that he knew about what he had researched, but at the same time, he felt disappointed that few researchers argued over-playing games was not "addiction" but only "disorder" or "out of control," which was what he wanted to demonstrate through his project.

When asked if they were worried about their English for doing this project (1-not at all, 2-a little, 3-some, 4-a lot), S1 answered "2-a little" over the stages (Figure 4). S2, who had lower English proficiency than S1, started the project with a lot of worries about his English. However, after summarizing the introductory sources, he said, "it was less hard than I thought." It seems that the students who have lower self-rated English proficiency might have more concerns or pressure on their lack of English proficiency at the initiation stage of the research.

As to the ELL students' affective patterns, during the project, compared with native English speaking students, the school librarian mentioned, "The ELL student seemed to

|  | Initiation | Mid-point | Completion |
|---|---|---|---|
| S1 | confused, uncertain, worried | optimistic | confident, disappointed |
| S2 | uncertain | anxious | - |

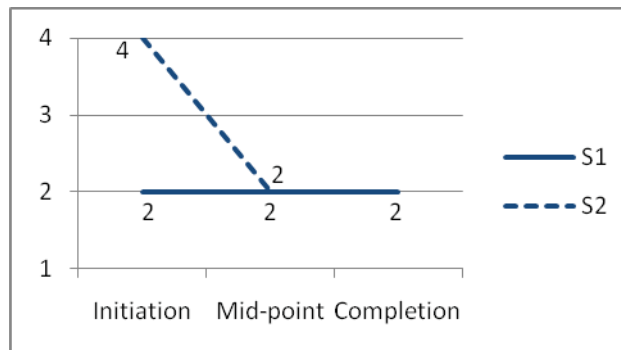Table 2. Emotional changes during the research project

Figure 4. Worried about English for the project?

mature somewhat through the process and seemed satisfied with his ability to handle this rather arduous task." This will be explored further in the dissertation study.

## Summary

The students had help from three school librarians and the researcher for the project. They needed someone who could stay by them and explain what they could not understand and what an article was generally about during the project. Especially, they wanted to get help when they were working on the project at home. However, they did not have anyone who could fluently speak English. The summary of the findings in this study includes:

1. Cognitive dimension
   - *Topic selection*: The lack of English proficiency limited ELL students in choosing a "doable" topic even after they found a subject related to their interests.
   - *Focus formulation*: The supplied sources by the school librarian, at the initiation stage, gave ELL students a more specific direction in their research, however as they formulated their own focus, intervention needed to be more careful. Difficulties in reading hindered the ELL students in formulating a focus and the lack of focus, in addition to the limited English proficiency, made it harder to summarize sources and establish key ideas that they understood.
   - *Knowledge building*: Although ELL students became more interested in their topic over the stages, lower English proficiency hindered ELL students in developing their knowledge beyond descriptive and superficial levels.
   - *Knowledge labeling*: ELL students established more specific titles in the mid-point than in the initiation, however it relationship with English proficiency was not clear.
   - *Knowledge presentation*: ELL students tended to list the peer-reviewed articles in a chronologically order in their papers. They were in a hurry to finalize the project because they had already fallen behind, and as a result they simply summarized the articles individually and did not have a big picture about them.

2. Behavioral dimension
   - *Search terms and operators*: The lack of English proficiency made ELL students prefer high recall to high precision through the project process. Moreover, they did not use any related terms from the articles, which they already found and read, for the next search. They rarely used Boolean operators.
   - *Selection criteria*: ELL students needed to consider the length and vocabulary level of articles as well as topic relatedness in searching.

3. Affective dimension

- *Emotional changes*: ELL students appeared to have more concerns or pressures because of their lack of English proficiency at the initiation stage of the research.

## Discussion

The reflections of this pilot study are discussed in terms of research design, research instruments and role as a researcher.

### Research design

Since this study was conducted only with ELL students, it was not possible to establish if information seeking and knowledge building patterns were generated by their linguistically and culturally different background or could have happened to native English speaking (NES) students. Therefore, a comparison study between ELL students and NES students is suggested in order to understand how linguistic and cultural factors interact with the students' information search process.

As documented earlier, one student dropped out after the mid-point of the research project without completing it. Since this study is not an experimental study, but a longitudinal study in the school setting, and ELL students (31%) show higher drop-out rate than NES students (10%) (NCES, 2004), the students' drop-out rate of schools should be considered when the researcher recruits participants.

### Research instruments

The students easily forgot to keep search journals when they searched for sources because the search journal was strongly perceived as an additional workload which they were asked to do by themselves throughout their research process. Therefore, when they searched for peer-reviewed articles, search journals were replaced with search sessions. Even though search sessions did not cover the whole search process, they gave more detailed data about their search terms and tactics. In the future study, two search sessions will be designed. The first search session will be conducted during the exploration phase (pre-focus formulation) of the project when students search for general sources to build background knowledge. The second search session will be conducted during the collection phase (post-focus formulation) of the project when students search for more specific, pertinent sources. Their searching will be recorded by the screen capture recording software. After searching, think-after interviews will be conducted to establish the student's information intents, selection criteria and usefulness judgment.

The pilot study showed that there were frequent changes in the students' feelings and concerns, and this was not effectively captured by collecting data just at the three times during the process. This issue raises the question, "What are unobtrusive ways for capturing students' dynamic change of feelings during the research process without bothering the class for gathering data?"

Only English was used for the data collection of this study to test if English used in the research instruments (i.e. questionnaire, surveys, search journal, interviews) was easy and clear enough for ELL students to understand. Since they already had basic abilities to perform a research project in English it was assumed that they would not have difficulties understanding and answering the instruments in English. A few times however, they used electronic dictionaries for checking spellings in answering the surveys, and needed more specific directions on how much and detailed they needed to write when they answered Q1 of the survey (Q1: Take some time to think about your topic. Now write down what you know

about it). In general, there seemed no particular difficulties for ELL students understanding and answering the research instruments in English in this study.

*Role as a researcher*

When the students had questions about the research instruments (i.e. questionnaire, surveys, search journal, interviews) or their research process, they were allowed to communicate with the researcher in Korean, which is their native language, in order to preclude misunderstanding and obtain richer sense about ELL students' difficulties. However, the communication with the researcher in their native language allowed too much intervention by the researcher, which might have influenced students' performance and made them rely on the researcher as someone who could help them with their research.

## Conclusion

As a pilot study designed for a more extensive dissertation study, this study indicates that language proficiency may indeed influence the information-to knowledge experience of students when they undertake inquiry units of work.  It shows that their lack of English proficiency limited ELL students in choosing a doable topic, made it harder to summarize sources and hindered them in developing their knowledge beyond descriptive and superficial levels. In searching, ELL students preferred high recall to high precision through the project process and rarely used Boolean operators. In addition, it appeared that they had more concerns or pressure because of their lack of English proficiency at the initiation stage of the research.

The pilot study also shows that potentially future studies about ELL students' information search process can shed light on how different linguistic and cultural background influence people's information seeking and use and contribute to enriching the existing ISP model by considering the individual's linguistic and cultural contexts. Such studies also have the potential to help teachers and school librarians understand ELL students' information search process and various information needs from their unique situations and contexts, and develop more appropriate interventions to enable them to succeed in this context. In addition, such studies can inform system designers to consider ELL students' unique needs in terms of information, system interface, search strategies and evaluation skills.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.

# Building capacity and continuous improvement of school libraries: The Delaware experience

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This research paper is in two parts.  "Part I: The Evidence" documents the background, purpose, methodology and findings of the Delaware School Library Infrastructure Study undertaken on behalf of the Delaware Governor's Task Force, and highlights some key issues and concerns that have formed the basis for . "Part 2: From Evidence to Action" documents the processes and professional actions involved in developing a sustainable program of improvement for school libraries in Delaware through engaging with the research evidence. This research and development process, initiated in 2005, is an ongoing evidence-based practice program engaging multiple partnerships at school district and state department of education to focus on continuous improvement and capacity building of school libraries in the state of Delaware.  At its center is a process of engaging school librarians in a research-based, data-driven cycle of transforming school libraries so that they can play a central and identifiable role in curriculum implementation, student achievement, reading, and literacy development in Delaware's schools, and to ensure that Delaware's school libraries play a role in world class learning and literacy in the state.

*Evidence Based Practice, School Library Research, Delaware School Libraries*

## Background: Delaware Context and the Governor's Task Force on School Libraries

The Governor's Task Force on School Libraries was first convened by state Governor Thomas R. Carper in 1993, to improve and extend the library and information services for Delaware's K-12 students.  In 2003 Governor Ruth Ann Minner reconstituted the Task Force and commissioned it to be engaged in the following activities:

- Close communication and shared activities with the Department of Education, through the Education Associate for Library/media/Technology;
- Developing collaboration among school and public libraries, as well as with college and university libraries, working through the Delaware Division of Libraries;
- Encouraging the use of Standards for Library Media Centers, Delaware Public Schools by district and schools to assess and improve their programs;
- Conducting an annual survey to gather data about Delaware school libraries;
- Involvement with literacy efforts throughout the State, especially reading initiatives

in the schools; and

- Support the Exemplary School Library Project to showcase the effects on academic achievement of a quality elementary school library.

In 2005, the Center for International Scholarship in School Libraries at Rutgers University (CISSL) was formally engaged to first undertake the annual survey as required in the Governor's brief, and second, to examine and document exemplary school libraries' contributions to academic achievement in the state. The first study is reported here. While various constituencies in Delaware had collected data for several years to provide first-hand information to schools, districts, and interested political and educational groups, this data were not complete in analysis nor findings, and little use was made of it.

A review of these earlier instruments also indicated some potential limitations in providing data that would ultimately serve to highlight the contribution of Delaware school libraries to learning achievement. For example, while the survey collected important data regarding the physical and personnel infrastructure of the school library – data related to staffing levels, resource levels, information technology infrastructure, and fiscal support levels – there was no direct input from the school librarians on the nature of their instructional role, their information literacy initiatives, nor any perceptions of how this instructional role impacted on student achievement. It was felt that the surveys previously used needed to be extended to encompass these dimensions.

# Part I: The Evidence
## Conceptual Framework for the Study

The conceptual framework used for structuring the survey instrument was based on the model of the School Library as a Dynamic Agent of Learning, developed by Todd and Kuhlthau (2005). This model, underpinned by an extensive body of school library research extending over three decades (see for example, Scholastic's synthesis of research in School Libraries Work!), was explicitly based on quantitative and qualitative data collected from 13,123 students and 870 teaching faculty in 39 schools across Ohio. The model posits that as a dynamic agent of learning, a school library's intellectual and physical infrastructure centers on three essential interactive and iterative components: *informational* (the information resource and information technology infrastructure; *transformational* (the instructional interventions and student engagement initiatives), and *formational* (learning impacts and student outcomes). Central to this dynamic process are certified school librarians and support staff who lead and enable the school library to meets its learning objectives. These components are shown in the model below:

**Figure 1**
## Model of the School Library as a Dynamic Agent of Learning
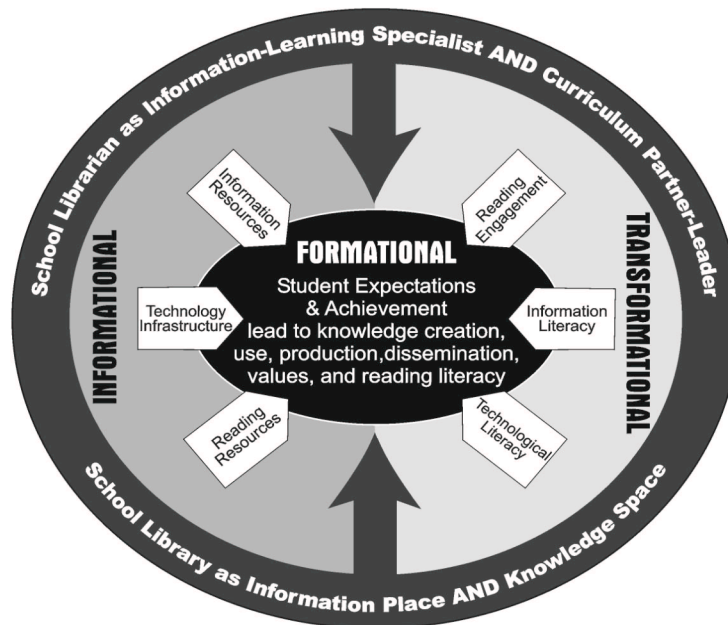


Also guiding this study was a professional need for capacity building and continuous improvement of school libraries.  In this context, capacity building is broadly conceptualized as any process, strategy, initiative or action that is employed to strengthen or facilitate the ability of  school libraries to provide powerful and sustainable, high quality in their schools, and to provide opportunities for school teams to work together in new ways (Noah & Brickman, 2004;  Harris & Lambert, 2003).

Accordingly, the revised survey instrument sought to capture not just data related to the physical, resource and personnel infrastructure, but to gain initial perceptions into the nature and focus of instructional activities of school librarians, initiatives related to fostering the development of reading through the school library, as well as some insight into what the school librarians perceive to be the impact of the school library on student learning outcomes and achievement.

This holistic approach to the survey scope represents a key departure in the development of survey instruments to characterize and profile school libraries, which historically have given primary emphasis to informational dimensions, with limited attention to transformational and formational dimensions.  This direction was considered timely, particularly in the context of developments in the field of school librarianship, including:

- an increased focus on the role of the school library's contribution to student learning outcomes  (Scholastic, 2008);
- the emergence of the evidence-based practice as both an issue and direction for the field  (Eldredge, 2000; Todd, 2007);
- the increased focus on quality teaching and learning across the whole school, and the dynamics of productive pedagogy to enable meaningful learning to take place through the school library (Gore & Ladwig, 2002);

- a focus on elucidating more carefully the dynamics of instructional intervention through the school library and its relationship to learning outcomes (Kuhlthau et al, 2007);
- The current climate of standards-based education, accountability, performance excellence and school improvement, coupled with pressures of reduced budgets and staffing (Slavin, 2008).

## Methodology

The three dimensions identified above formed the central goals of the research study, which first sought to construct a picture of the status of Delaware's school libraries in terms of their informational-transformational-formational dimensions, and second, to use this as a basis for developing a sustained and long term program of capacity building and evidence-based continuous improvement. Accordingly, the study sought to gather baseline data about the state of Delaware's school libraries in terms of:

(a)   extent and levels of staffing, both professional and paraprofessional (support staff);
(b)   nature and extent of information resources across multiple formats and their alignment with Delaware's curriculum and their support of state academic content standards;
(c)   nature and extent of technology infrastructure, its use and levels of technical support;
(d)   reading and literacy initiatives targeted to both informational curriculum needs as well as pleasure/leisure reading;
(e)   the range of instructional and curriculum activities that school librarians are involved in at their schools, with specific emphasis on the nature and extent of information literacy initiatives, including technical and digital literacies and the thinking and communication competencies for information access, retrieval, production, and dissemination;
(f)   school librarians' engagement in instructional collaborations, co-ordinations and co-operations;
(g)   nature and extent of curriculum engagement, professional development within and outside of the school;
(h)   perceptions the impact of the school library on student learning outcomes and achievement;
(i)   challenges, barriers and enables to professional school library work.

## Data Collection and Sample

Data were collected through a web-based (Zoomerang) survey questionnaire that collected both quantitative and qualitative data. Following development and pilot testing, the survey instrument was made available to school librarians in Delaware, and once collected, it was further analyzed using SPSS, the Statistical Package for the Social Sciences. A copy of the survey instrument is available at: http://www2.lib.udel.edu/taskforce/survey2004.doc. The survey instrument was confidential and not anonymous, as it collected specific data on individual public schools, and this enabled the members of the Delaware Governor's Task to provide any necessary assistance with completing the survey, and to track survey completion and submission. As a result, 100% of the Delaware public schools - 154 public schools - completed the survey, resulting in a comprehensive and robust data set of the informational, transformational and formational dimensions of school libraries across the state. Specifically, 91 elementary, 31 middle, 30 high schools, and 2 composite schools were represented in the study.

# Selected Findings

It is not intended here to provide a full explication of all findings of this study. A full report is available at: http://www2.lib.udel.edu/taskforce/study/phasetwo.pdf. A snapshot of the informational, transformational and formational landscape of Delaware's public school libraries is presented here, and with focus on the data that have formed the foundation for the program of capacity building and continuous improvement.

*Personnel*

71% of library employees are state certified school librarians. 18.8% are school librarians on emergency or limited certificates. The largest group of non-certified school librarians or school librarians on limited certification are in elementary schools. 60% of school libraries have support staff employed. 54% of elementary school libraries have no assistant support. Only 22% of school libraries have full time support staff.

*School librarians' engagement in relational activities*

Co-operations (defined as informal communications between teachers and school librarians), rather than co-ordinations (where the teacher and school librarian may meet together to discuss a lesson/unit of study, but where the individual goal setting, learning experience design, teaching, and evaluation are done independently) and collaborations, (defined as the teacher and school librarian jointly setting goals, designing learning experiences, teaching and evaluating a comprehensive unit of study) are the predominant mode of school librarians' interactions with teaching faculty. These primarily take place in English Language Arts, Social Studies and Science, and are typically multiple co-operations over time.

The data on the number of co-ordinations indicate that a significant group of school librarians do not engage in any level of formal (as opposed to the more informal) interactions with teaching faculty in relation to curriculum activities that involve the library. Specifically, 28.5% of school librarians have no co-ordinations in English Language Arts, 32.5% of school librarians have no co-ordinations in Social Studies, 39.6% of school librarians have no co-ordinations in Science, and 75.3% of school librarians have no co-ordinations in Mathematics. School librarians who are involved in co-ordinations typically have between 1 and 5 co-ordinations per year, with a small number of school libraries with over 20 co-ordinations per year.

Compared to the number of co-operations and co-ordinations, the number of collaborations is low, as shown in Table 1. 60% of the school librarians do not engage in formal collaborations to integrate information literacy into the English curriculum, and considerably higher percentages in the other curriculum areas identified in this study.

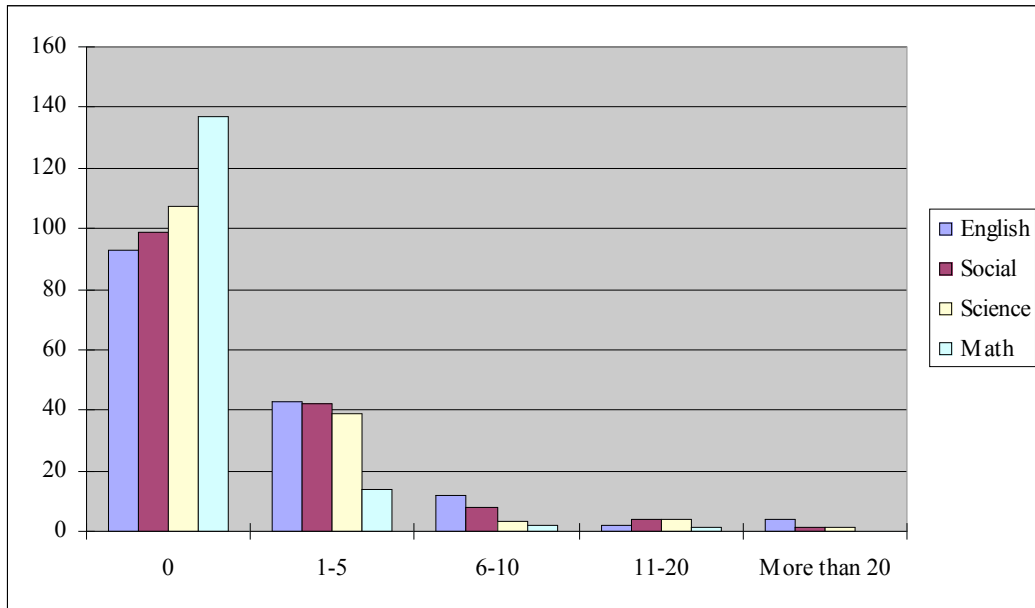**Table 1: Collaborations Across Curriculum Areas**



Table 1 also indicates that there is a small group of school librarians who do engage in an extensive number of formal collaborations. The highest number of collaborations take place where there is a full time, certified school librarian who operates a library program based on flexible scheduling. School libraries where very low levels of co-operations, co-ordinations and collaborations take place are typically elementary schools without a certified school librarian or who do not have a full time support staff in the building. Given that both Delaware's statement of standards, and AASL national standards, speak to the professional role of school librarians providing collaborative and integrated instruction in relation to information literacy development, this professional role is not taking place in a widespread and sustained way in Delaware.

*Participation In School Life*

School librarians in Delaware actively participate in many different school and community forums. There is some variation, however, according to type of activity and school type (elementary, middle and high). Faculty meetings are the primary means that school librarians use to communicate about library resources and learning initiatives. 73% of the school librarians speak at faculty meetings. In addition, 62.3% of school librarians engage in regular 48% of school librarians are involved in the provision of professional development on information literacy in their school communities. meetings with key school personnel. This is more predominant in the middle and high schools. Other means of communication, such as department meetings and grade level meetings are not heavily utilized. 54% of school librarians do not share aspects of their library's programs (either instruction, resourcing or reading) to parent / community organizations. Overall there is low participation in district curriculum committees and school improvement plan committees (14% and 31% respectively). The school librarians typically participate in at least one professional development activity each year, and these extend into a range of curriculum areas. Participation in reading association conferences, state library conferences, and national school library conferences is very low.

*Information Literacy Instruction*

Delaware School librarians engage in a range of information literacy instruction initiatives. These are shown in Tables 2 (Scope of Participation in Information Literacy Instruction) and Table 3 (Scope of Participation by School Type):

**Table 2: Scope of Participation in Information Literacy Instruction**

| Dimensions of Information Literacy Instruction | | N | % |
|---|---|---|---|
| Knowing about the school library. | | 145 | 94% |
| Understand the different strategies in doing effective research. | | 118 | 77% |
| Knowing about different sources and formats of information. | | 146 | 95% |
| Knowing how to use the different sources and formats of information. | | 120 | 78% |
| Identifying main ideas in information sources (analyzing information). | | 91 | 59% |
| Sorting and organizing ideas (Synthesizing information). | | 84 | 55% |
| Evaluating information for quality. | | 109 | 71% |
| Using information ethically (e.g. Plagiarism, citation, bibliography). | | 117 | 76% |
| Creating information products. | | 66 | 43% |
| Communicating/presenting ideas (orally and/or in writing). | | 83 | 54% |
| Accommodating differentiated learning styles and abilities. | | 107 | 69% |

**Table 3: Scope of Participation by School Type**

| Dimension | Elementary | Middle | High |
|---|---|---|---|
| Knowing about the school library. | 95.6% | 93.5% | 90.0% |
| Understand the different strategies in doing effective research. | 70.3% | 80.6% | 90.0% |
| Knowing about different sources and formats of information. | 91.2% | 100% | 100% |
| Knowing how to use the different sources and formats of information. | 70.3% | 87.1% | 90% |
| Identifying main ideas in information sources (analyzing information). | 56.0% | 61.3% | 66.7% |
| Sorting and organizing ideas (Synthesizing information). | 53.8% | 58.1% | 53.3% |
| Evaluating information for quality. | 59.3% | 83.9% | 93.3% |
| Using information ethically (e.g. Plagiarism, citation, bibliography). | 67.0% | 96.8% | 83.3% |

| | | | |
|---|---|---|---|
| Creating information products. | 38.5% | 54.8% | 43.3% |
| Communicating/presenting ideas (orally and/or in writing). | 57.1% | 54.8% | 43.3% |
| Accommodating differentiated learning styles and abilities. | 72.5% | 67.7% | 60.0% |

As shown in Tables 2 and 3, this instruction typically centers on knowing about the school library, different sources and formats and the different strategies in doing effective research, learning how to use resources, and evaluating information. Given the low levels of co-ordinations and collaborations, these would appear to primarily take place in isolation in the school library, and not optimally as part of instructional partnerships with classroom teachers. Despite issues with staffing in the elementary schools, school librarians where available contributed substantially to this instruction.

The data also suggest that the focus of information literacy instruction centers on sources – knowing the library, knowing the different formats and sources, knowing how to use them, and knowing how to determine their quality and appropriateness. This is an important foundation for developing information literate students. However, the data raise some concerns. Information literacy instructions and interventions that focus on the holistic experience of learners in the process of constructing new understandings and meanings of their curriculum content were not strongly represented in the data. Negligible mention was made of the information literacy skills that relate to learners developing deep knowledge and deep understanding of their curriculum topics: skills such as analyzing the information to identify important and needed components, interpreting the information against existing knowledge as well as other sources, identifying and understanding the key ideas, organizing the salient ideas into some meaningful structure to create a personal understanding, critiquing multiple viewpoints and opposing ideas, structuring arguments and formulating conclusions; creating information products that best represent the new knowledge gained, and developing communication processes to effectively share new understandings. While some of the school librarians provided some indication that they were moving beyond "source orientations" to "knowledge orientations", this more holistic view of information literacy – involving access AND use of information was not pervasive.

*Information Technology Instruction*

Table 4 shows that the school librarians undertake instructional activities to help students engage with information technology in efficient and productive ways.

**Table 4:  Instructional Activities for Effective Use of Information Technology**

| Dimension | | N | % |
|---|---|---|---|
| Searching strategies for the World Wide Web. | | 124 | 81% |
| Evaluating the quality of websites. | | 101 | 66% |
| Using computer programs to do school work (i.e. Power Point, Excel). | | 76 | 49% |

| | | N | % |
|---|---|---|---|
| Using UDLibSearch, other electronic databases/library catalogs and directories. | | 113 | 73% |
| Teaching about the ethical use of the internet. | | 103 | 67% |
| Integrating technology in the content areas. | | 86 | 56% |

Most typically this includes searching strategies for the world wide web, using UDLib/Search and other electronic databases, evaluating web sites, and teaching about the ethical use of the internet. This takes place more widely in middle and high schools. Given the low levels of co-ordinations and collaborations, these too appear to primarily take place in isolation in the school library, and not as part of instructional partnerships with classroom teachers.

*Reading/writing initiatives*

Given that school libraries have a long tradition in fostering in students a love of reading, and the development of self-motivated and competent readers, the survey sought to identify the range of reading/writing initiatives that school librarians have undertaken. School librarians do engage in a wide range of activities to promote reading across the school. The number of percentage of school librarians engaging in these various activities is shown in Table 5:

**Table 5: Frequency of Reading / Writing Initiatives of School Librarians**

| Dimension | | N | % |
|---|---|---|---|
| Book talks to promote literature for self-selected recreational reading. | | 120 | 78% |
| Book talks to promote trade books (non text books) for curriculum related reading. | | 80 | 52% |
| Author visit. | | 29 | 19% |
| Literature discussion groups, where students share ideas and discuss their reading. | | 46 | 30% |
| Literature displays. | | 130 | 84% |
| Creative writing activities related to literature. | | 57 | 37% |
| Book Clubs. | | 34 | 22% |
| Story telling. | | 67 | 44% |
| Promotion of reading programs at public libraries and/or other venues. | | 80 | 52% |
| Other reading incentive programs such as Accelerated Reader. | | 95 | 62% |

| Other, Please Specify | ▬▬▬ | 47 | 31% |
|---|---|---|---|

Table 5 shows that a high number of school librarians present literature displays to encourage reading, and engage in book talks to promote literature. Half of the school librarians in Delaware promote informational resources to students, and promote reading programs taking place at public libraries and / or other venues, and almost two-thirds work with reading incentive programs such as Accelerated Reader. Additional activities included: Delaware Reads About program; Book fairs; Reading celebrations and festivals, such as Dr. Seuss Day, Festival of Words, "February, I Love to Read" promotion Participation in Summer Reading Programs through public libraries, Providing advice to teachers on reading initiatives, Contests, such as poetry contest, Mystery Reader contests and Triva type activities; Reading encouragement programs, such as provision of reading lists, "Battle of the Books", 100 Day Book Challenge, High Flying Readers, Delaware Diamonds, read aloud programs, Celebrity readers; Creative programs: acting out stories, puppet shows, Coffeehouses for creative writing; Promoting access to books: visits to bookstores, Public Library Card Drive for students; and distributing books to students who had none at home.

Two concerns emerge out of this data. First, reading enrichment programs were more pervasive in the elementary school, and declined in frequency through middle school and high school. There may be a number of possible reasons for this, such as the focus on informational resources to meet curriculum demands, and the perceived notion that such activities are for younger children. However, the reduction of such activities conveys a perception that high school libraries are not about reading for enjoyment and pleasure, and this is a serious issue, especially in fostering an ongoing love of reading for pleasure after schooling. Second, the reading activities that were most typically undertaken were primarily passive activities. Book display, book promotions, promotion of reading programs may, but do not necessarily engage students. Those reading initiatives that foster active engagement, discussion, creative output, such a discussion groups, literature circles, book raps, had much lower rates of school librarian involvement.

The school librarians identified a range of learning outcomes enabled by the school library. Based on responses from 144 school librarians, the data suggest that school libraries in Delaware play a role in helping students learn in their curriculum areas in five predominant ways. These are identified in Table 6, and supported with illustrative examples.

**Table 6:  Significant Learning Outcomes Enabled by the School Library**

| Outcome | N | Examples |
|---|---|---|
| Mastery of research processes, and research skills involved in locating and selecting sources, organizing, and evaluating information, and compiling information | 61 | "Information skills. Finding and evaluating good sources of information" "Students understand the process of research and follow steps in order to achieve success" "Mastery of research process specific to curriculum content and bibliographic citation of sources;" "Students are capable and confident researchers." |
| Improved reading skills, more interest in reading | 58 | "Increased outside reading, children coming daily for new books" |

| | | |
|---|---|---|
| | | "We feel that we made changes in attitude, interest, and motivation in selecting appropriate books to improve reading skills through Accelerated Reader and instruction." "Some students have become more interested in literature and have become more motivated to read books that they would not usually select". |
| Mastery of information technology skills- internet, online catalog, databases, searching UDLib, learning new presentation formats | 34 | "students have better understanding of web use (safety, quality)" "Students learned to use on-line public access catalog independently. Students practiced using a research "path." "Presented the characteristics of poetry using Power Point," "Students used Microsoft Publisher to publish their stories and they were displayed at a parent night" |
| Change in attitude, interest, and motivation- positive attitude to visit library, increase interest, engagement in library activities | 24 | "I am pleased with the change in attitude, interest in the our school library." "Children have shown positive attitudes when visiting the library. The atmosphere is always charged with good comments and reactions by all who visit" "high interest in library and books, motivated readers from displays and activities" |
| Learning of specific curriculum content | 7 | "Students can identify and describe all the vocabulary in our Curriculum guide" "mastery of curriculum" "Students are able to differentiate between continents, countries, and cities" "curriculum based information" |

39.6% of the school librarians indicate that their school library helps students become effective researchers, and develops in them a range of skills in locating and selecting sources, organizing and evaluating information, and compiling information. 37.7% indicate that their school library helps improve reading sills and helps students develop greater interest in and motivation for reading. 22.1% that their school library helps students develop a range of technology skills related to using the internet effectively, and searching online databases and catalogs. 15.6% of indicate that their school library helps students develop positive attitudes to libraries. Very few school librarians (4.5%) articulate learning outcomes linked to curriculum standards and goals.

Two observations can be made of this analysis. First, while it is encouraging that school librarians articulated improvements in terms of reading, information literacy, use of information technology, and improved attitudes towards the library, very few could articulate learning outcomes in relation to the students' development of deep knowledge and deep understanding of content areas. They appeared to have difficulty articulating the outcomes of library initiatives in terms of curriculum standards and goals. Second, many school librarians had difficulty focusing on student outcomes, rather, many school librarians articulated (often at length) what they did, identifying instructional inputs and processes, rather than clarifying outcomes from the perspective of the students.

*Library Administration*

All school librarians are involved in an extensive range of library administration responsibilities: selection, ordering and processing of resources, supervision of staff and volunteers, as well as technical equipment maintenance, and other school duties. For the majority of school librarians, this takes place on a daily or weekly basis. These are time

consuming responsibilities, and clearly school librarians invest a considerable amount of time in these responsibilities. Given the time commitments to perform the range of administrative, supervisory, equipment maintenance, and duty responsibilities, this may well contribute to explaining the low levels of co-operations, co-ordinations and collaborations that the study identifies. A possible contributor to this may be the fact that 40% of school libraries are operating on flexible scheduling of classes.

*Information Resources and Information Technology: A Brief Snapshot*

At the time of the study (2005) there were approximately 1.6 million materials housed in Delaware's school libraries, with an average of 11,500 per school (10,400 for elementary schools, 12,500 for middle schools and 13,500 for high schools). The average number of materials per student at this time was 15.36. Of these materials, approximately 1.37 million were books. This is 87.5% of the total materials. The average number of books per student was 12.65. While a number of schools had above this average, this figure is well below the minimum resource recommendation of 15 currently useful volumes per student presented as established in "Standards for School Library Media Centers: Delaware Public Schools". 37% of Delaware's school libraries did not meet this minimum resource recommendation. Only 38% of Delaware's school libraries have good or exemplary resource levels (that is, above 20 currently useful volumes per student [good], and 25 useful volumes per students [exemplary]. Participation in interlibrary lending was low. Over half of Delaware's school libraries have annual budget allocations below $6,000, and 30% of school libraries experienced budget decreases from the previous school year.

At the time of the study, the average number of magazines in school libraries was 21 (13 for elementary schools [minimum recommendation is 15-20], 23 for middle schools [minimum recommendation is 45-55]; and 45 for high schools [minimum recommendation is 55-70]). The average number of newspapers in school libraries was 1.4. Overall, the majority of Delaware's school libraries fell below the minimum recommendations for books, magazines and newspapers. 40% of school library catalogs were searchable via the internet, providing opportunities for students in some schools to access the school library independently after school time. The average number of computers in the school libraries available for internet access was 15 (10 in elementary schools, 20 in middle schools, and 29 in high schools). 56 school libraries had web sites.

## So What, And Where To Next?

The findings indicate that those school libraries that are strongly integrated into the learning fabric of the school and which contribute to student learning outcomes - have a common set of characteristics including:

- a state certified, full time school librarian in the building;
- the availability of support staff who free the school librarian to undertake instructional initiatives and reading literacy initiatives;
- flexible scheduling so that school librarians and classroom teachers can engage in collaborative planning and delivery of information literacy instruction;
- an active instructional program of information literacy targeted towards learning curriculum content and skills;
- a school library that meets resource recommendations of 15-20 books per child;
- the provision of professional development on information literacy and technology literacies to the teaching faculty;

- a budget allocation of $12-$15 per student per year to ensure currency and vitality of the information base;
- A strong networked information technology infrastructure that facilitates access to and use of information resources in an out of the school.

However, the findings also show that while Delaware's school libraries are making some (and variable) progress in reaching infrastructure standards and instructional goals there are common shortcomings in the provision of infrastructure – resources, full time staffing - as well as collaborative instructional opportunities to work with classroom teachers targeted to meeting curriculum standards and demonstrating learning outcomes that go beyond mastery of a basic set of information competencies. Given the low level of articulating outcomes of the school library's program, the findings indicate that there are some significant communication issues and missed opportunities that both school librarians and school leaders in Delaware need to reflect on and address. In addition, the findings also suggest opportunities to rethink reading and literacy initiatives, not just in terms of building motivation and engagement with reading, but also to link with state and national reading initiatives that focus on improving reading achievement, as well as reading for comprehension.

These challenges became the basis for key recommendations made to the Task Force, and a starting point for responding to the evidence and implementing a program of continuous improvement and capacity building of school libraries in Delaware. Key recommendations included:

- developing a stronger evidenced-based practice approach to school library programs targeted to measuring and demonstrating the school library's contribution to student learning programs;
- developing stronger collaborative instructional programs targeted to meeting the knowledge and skills outcomes embedded in Delaware's curriculum standards rather than focusing on simplistic information competencies;
- with particular emphasis on reading and literacy development, developing skills of engaging with school, district and state reading data in order to identify achievement gaps, learning needs, and to translate these needs into instructional and service programs through the school library and measure evidence of progress;
- developing negotiating school and district improvement plans that engage the school library in a direct and deliberate process of identifying school achievement gaps and developing evidence-based programs to contribute to closing achievement gaps;
- developing an integrated professional development program of school librarians, school communities and educational leaders to work together to ensure that high levels of student achievement take place.

## Part 2: From Evidence to Action

Based in the challenges identified above, this section will briefly outline the processes and programs currently being undertaken in Delaware to build capacity and continuous improvement of school libraries. This has centered on three sustained programs of professional action, and which has engaged multiple experts at state and regional level working together to provide an experience-based and evidence-based program of development and implementation.

The underpinning practice orientation that has framed this program is evidence-based practice. Evidence-based practice, as an approach to professional practice in school libraries, systematically engages research-derived evidence, school librarian-observed evidence and user-reported evidence in iterative processes of decision making, development and continuous improvement to achieve the school's mission and goals. At the heart of evidence-based practice are the students' information-to-knowledge experience, achievement, quality learning, and quality teaching. Evidence-based school librarianship is founded on the conscientious interpretation and integration of research-derived evidence to shape and direct professional practice. Its day-by-day practice meshes professional wisdom, reflective experience and understanding of user needs with the judicious use of research-derived evidence to make judgments and decisions about how to deliver the instructional and service roles of the school library to meet the goals of the school (Todd, 2007). Accordingly, the development program initiated in Delaware has focused on evidence-based decision making though engaging with research evidence, evidence existing in the school and state, and outcomes-based evidence. It has given explicit attention to engaging with multiple sources of evidence: data from the state-based research, the research literature of the field, data available through the Department of Education focusing on student achievement, other school-based data, as well as school library data generated through library systems and services.

To date, three four-day mini-courses have been developed and implemented (in progress), targeted to developing collaborative instructional capacity, data-driven planning and decision making, establishing systematic measures for documenting learning outcomes which become part of the cycle of continuous improvement. Each of these programs have involved school librarians working in collaborative partnerships with district and school classroom teachers, reading and literacy experts, and curriculum leaders in the key learning areas of the Department of Education. A key expectation of the program has been that school librarians will facilitate training in their school districts. Each of the mini-courses is briefly described here. Their development emerged out of considerable engagement in the research data, establishing priorities and negotiating the developmental processes.

*Mini-Course 1: School Librarians and School Improvement*
This course seeks to provide school librarians with an understanding of the processes involved in evidence-based practice, knowledge of the range of achievement and general school data available in and beyond Delaware to underpin evidence-based practice; skills and strategies on how to interrogate and analyze this data to inform school improvement efforts in Delaware, how to use this data in making decisions for school improvement efforts, develop library interventions and measure the impacts, and how to engage with school-based improvement planning processes.

Participants are involved in creating a library improvement plan that could be incorporated into the school's improvement plan, with explicit attention to data-driven needs analysis, design of instructional and service interventions, and design of outcome measures to establish efficacy of improvement processes. The improvement plan has the following components:

- *Improvement Goal*: (How would we like to see student achievement improve on the high priority, grade level standards over the next one, two, or three years?) How does this relate to school goals and school improvement goals and processes?
- *Supportive Data*: (Current Achievement): Which students are and are not able to

demonstrate (at proficient or higher levels) the knowledge and skills described by what high priority, grade-level standards and/or related benchmarks? What data were used to describe current achievement? Why is current practice not effective for these students? What may be other explanations for why the identified students are not learning?

- *Improvement strategies*. Given the explanations and the data, what changes do we need to make in current practice – in the day-to-day work of students and teachers, to produce the desired outcomes? What are the research-based instructional strategies that can be implemented, and why are these appropriate?
- *Measurable Objectives*: What will be the change for students to validate our success? How will we track our progress in implementing the changes in practices that we have identified as our principal strategies for improving student achievement?
- Targeted Staff: Who will provide leadership and be responsible for the implementation of the activity?
- *Decision:* Do you believe that, if the strategy you have described above is well-implemented, it would actually enable the targeted students to achieve the inferred improvement goal? Explain why you think the strategy will either enable or not enable the targeted students to achieve the inferred improvement goal.

*Mini-Course 2: Unpacking the Standards in the Library.*

This program involves Curriculum Associates of the Department of Education, district content specialists, and classroom teachers working in an evidence-based collaborative partnership. The collaborative teams:

- build an understanding of current research in relation to constructivist learning; student information seeking and learning in complex and diverse information environments;
- develop an understanding of the principles of guided inquiry as a pedagogical framework for constructing meaningful learning through the school library based on the Guided Inquiry framework of Kuhlthau (2007) and CISSL;
- engage in an in-depth analysis of the new Delaware Recommended Curriculum (DRC) in ELA, Math, Science and Social Studies to identify content standards and AASL learning standards (2007) that lend themselves to collaborative student-centered inquiry through the school library;
- work with Delaware curriculum experts to design integrated and collaborative guided inquiry units based on Delaware standards. These exemplars of collaborative curriculum inquiry units incorporate evidence-based measures to chart learning outcomes and are highlighted on DRC website for all classroom teachers and school librarians.

A condensed version of the Delaware Curriculum Unit Template that guided the collaborative planning process is provided here. It has been developed by the Department of Education I Delaware to facilitate integrated and collaborative instruction.

| **Delaware Curriculum Unit Template** |
| --- |

*Preface: This unit has been created as a model for teachers in their designing or redesigning of course curricula. It is by no means intended to be inclusive; rather it is meant to be a springboard for a teacher's thoughts and creativity. The information we have included represents one possibility for developing a unit based on the Delaware content standards and the Backward Design framework and philosophy, and*

*Universal Design for Learning (UDL) principles. When a unit is universally-designed, its goals, methods, materials, and assessments take into consideration the full range of diversity in our classrooms and provide the means for all students to participate and achieve.*

| | |
|---|---|
| **Subject/Topic Area:** | **Grade Level(s):** |
| **Searchable Key Words:** | |
| **Designed By:** | **District:** |
| **Time Frame:** | |
| **Reviewed by:** | **Date:** |

| |
|---|
| **Brief Summary of Unit** (This should include a brief unit summary including a description of unit goals, rationale for the approach taken, and where it appears in the course of study.) |
| |

| |
|---|
| **Stage 1: Desired Results**<br>**(Determine What Students Will Know, Do and Understand)** |
| **Delaware Content Standards** (This should include a list of the DE Content Standards for which instruction is provided in this unit and which are ultimately assessed in the unit.) |
| |
| *Big Idea (This should include transferable core concepts, principles, theories, and processes that should serve as the focal point of curricula, instruction, and assessment. Ex: Manifest Destiny, fighting for peace.)* |
| |
| **Unit Enduring Understandings** (This should include important ideas or core processes that are central to the unit and transferable to new situations beyond the classroom. Stated as full-sentence statements, the understandings specify what we want students to understand about the Big Ideas Ex: Inverse operations are helpful in understanding and solving problems.) |
| *Students will understand that…* |
| **Unit Essential Question(s)** (This should include open-ended questions designed to guide student inquiry and focus instruction for "uncovering" the important ideas of the content. Ex: What is healthful eating? What is the relationship between fiction and truth?) |
| |
| **Knowledge & Skills (**This should include key knowledge and skills that students will acquire as a result of this unit. Ex: Factors affecting climate, The causes of World War II.)<br>It should also include what students will eventually be able to do as a result of such knowledge and skill Ex: take notes, complete a bent-arm pull, compare fiction to nonfiction.) |
| *Students will know….*<br><br>    *Students will be able to…* |

| |
|---|
| **Stage 2: Assessment Evidence**<br>**(Design Assessments To Guide Instruction)** |
| (This should include evidence that will be collected to determine whether or not the Desired Results identified in Stage One have been achieved? [Anchor the unit in performance tasks that require transfer, supplemented as needed by other evidence –quizzes, worksheets, observations, etc.] |
| **Suggested Performance Task(s)** (This should include suggested authentic tasks and projects used as evidence of student competency in the skills and knowledge deemed important in the unit. Ex: a written composition, speeches, works of art, musical performances, open-ended math problems.)<br><br>Consider the following set of stem statements as you construct a scenario for a performance task:<br>G – Goal—Ex: Reflect character's motivation and predict his actions<br>R – Role—Ex: A character in *Of Mice and Men* |

| A – Audience—Ex: A family member or close friend |
| --- |
| S – Situation—Ex: Creating a scrapbook chronicling a character's life, real and inferred |
| P – Product, Performance, and Purpose—Ex: Scrapbook |
| S – Standards and Criteria for Success—Ex: Your scrapbook should include all components on included rubric |

| |
| --- |
| **Rubrics/checklists for Performance Tasks (**This should include holistic or analytic-trait rubrics used as a scoring guide to evaluate student products or performances.) |

| |
| --- |
| **Other Evidence** (This could include tests, quizzes, prompts, student work samples, and observations used to collect diverse evidence of student understanding.) |

| |
| --- |
| **Student Self-Assessment and Reflection (**This should include opportunities for students to monitor their own learning.  Ex: reflection journals, learning logs, pre- and post-tests, editing own work.) |

| |
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**Stage 3: Learning Plan**
**(Design Learning Activities To Align with Goals and Assessments)**

**Key learning events needed to achieve unit goals**

(This should include instructional activities and learning experiences needed to achieve the desired results (Stage 1) as reflected in the assessment evidence to be gathered (Stage 2).

The acronym WHERETO summarizes key elements to **consider** when designing an effective and engaging learning plan for ALL students.

W – Help the students know Where the unit is going and What is expected?  Help the teachers know
   Where the students are coming from (prior knowledge, interests)

H – Hook ALL students and Hold their interest?

E – Equip students, help them Experience the key ideas and Explore the issues?

R – Provide opportunities to Rethink and Revise their understandings and work?

E – Allow ALL students to Evaluate their work and its implications?

T – Be Tailored (personalized) to the different needs, interests, and abilities of ALL learners?

O – Be Organized to maximize initial and sustained engagement as well as effective learning?

*Did you consider the following unit design principles?*

*IP – International education perspective*

*IL – Information Literacy*

*WR – Workplace readiness/21$^{st}$ century skills*

*FA – Formative assessment, used to check for understanding*

*TL – Technology Literacy*

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**Resources & Teaching Tips** (Consider the two questions below when completing this section.)

**What text/print/media/kit/web resources best support this unit?**

**What tips to teachers of the unit can you offer about likely rough spots/student misunderstandings and performance weaknesses, and how to troubleshoot those issues?**

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**Differentiation** (This should include a list or description of ways that you will differentiate instruction according to students' needs.  This can include any curricular adaptations/accommodations that are needed to meet the needs of **ALL** students, including students with disabilities. Ex: using reading materials at varying readability levels, putting text materials on tape, using spelling or vocabulary lists at readiness levels of students, meeting with small groups to re-teach an idea or skill for struggling learners, or to extend the thinking or skills of advanced learners.)

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**Technology Integration**

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**Content Connections**

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| --- |

*Mini-Course 3: Literacy and School Improvement.*

This course seeks to engage school librarians with reading/literacy specialist partners, in the development of initiatives targeted to reducing state achievement gaps in relation to reading and literacy. Lead by the Delaware Department of Education's Curriculum Associate for English Language Arts (which encompasses reading and literacy), the school librarian-reading specialist teams:

- examine scientifically based research and writing strategies presented in a diverse body of literature;
- examine and interrogate reading achievement data of Delaware meshed with data from the Delaware school library studies to establish achievement gaps that have potential to be closed through a range of school library interventions;
- focus on measurable evidence to develop a student centered survey to collect evidence on their knowledge and ability in articulating the standards and their motivation towards reading;
- investigate student centered active interventions based on their survey's results and the findings and recommendations of the Delaware Library Study;
- develop a collaborative library-based improvement plans which targeted Delaware Grade-Level Expectations in ELA and AASL Learning Standards (AASL 2007), including processes and strategies to systematically measure the impacts;
- initiate a Community of Practice for continuous school improvement in Reading and Writing.

These three mini-courses are ambitious, and evaluative data on their impact are currently being collected as the courses are implemented. They highlight developing a stronger evidenced-based practice approach to school library programs targeted to measuring and demonstrating the school library's contribution to student learning programs. They have been constructed on several key principles: engaging, utilizing and modeling shared expertise across multiple sectors of the educational arena – school librarians, state curriculum leaders, district experts, school improvement personnel, and class room teachers committed to building capacity of school libraries and developing collaborative processes; developing skills of engaging with school, district and state research and achievement data in order to identify achievement gaps, learning needs, and to translate these needs into instructional and service programs through the school library and measure evidence of progress; and clearly linking any improvement planning and capacity building processes to school-wide processes and goals. In essence, school librarians have begun a process of being directly engaged in learning outcomes, engaged in collaborative processes of identifying achievement gaps, building their professional practice on an evidence-based approach, and taking ownership responsibility for the developmental needs of students, which in turn engages them more deliberately and overtly in connecting the school library to what schools are about.

A pervasive belief underpinning the improvement program described here is that school librarians must take action – action that is informed by systematic research, guided by experience and wisdom, engages strategically and carefully with evidence, and which creates evidence for continuous improvement and program development, and for building active support for school librarians and school libraries. Robert F Kennedy, in the Day of Affirmation address delivered at the University of Capetown, South Africa, on June 6, 1966, made this statement: "Few will have the greatness to bend history; but each of us can work to change a small portion of events, and in the total of all those acts will be written the history of this generation"

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Dr Ross J Todd is Associate Professor in the School of Communication, Information and Library Studies at Rutgers, the State University of New Jersey. He is Director of the Center for International Scholarship in School Libraries (CISSL). Current research focuses on three key themes: examining the impact of implementing an inquiry-based approach to learning centering on the Information Search Process developed by Professor Carol Kuhlthau on student learning outcomes; understanding more fully the cognitive dynamics of adolescent information seeking and use, with particular emphasis on changing information intents and

patterns of knowledge construction; and developing an evidence-based practice framework for school librarians.

## Statement of Originality

# A Framework for Accreditation of International Baccalaureate School Libraries

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*This study proposes a framework for an accreditation process for International Baccalaureate (IB) school libraries. It investigates a range of existing library benchmarks from developed countries as well as criteria for school library evaluation. A partner for this study is the International Association for School Librarianship (IASL). IASL will include the results of this study as it considers its role as an accrediting body for IBO school libraries. The areas for evaluation, and resulting accreditation, include: staffing, collections, services, facilities and equipment, and collaboration and networking.*

*School library benchmarks; international school libraries; library accreditation*

# Introduction

This study proposes an accreditation process for IB school libraries. It investigates a range of existing library benchmarks from developed countries that can act as guides. The International Association for School Librarianship (IASL) is a partner in this study. They may repackage the results of this study and offer to act as an accrediting body for IBO and other international secondary school libraries. The accreditation project was originally conceived in 2007. Subsequently, IASL established a task force in 2008 to develop the standards. The present study was started independently of the task force. It is expected that the task force will consider incorporation of the results of this study into its final recommendations. Essentially, this study takes on the status of an issues document.

Performance standards and benchmarks have been introduced and maintained over a long period of time to measure performance in an almost infinite number of activities and products. Standards may be implemented by international, national and local organizations, as well as governments. The International Standards Office (ISO) is the example par excellence of a standards creating body. It was established in 1947 with the stated purpose "to facilitate the international coordination and unification of industrial standards" (ISO, 2008). Operating as a network of national standards institutes of 157 countries, it has created or applied standards to over 16,500 activities and products. More recently within the library world, a range of standards have been established. The most obvious relate to collections. So, for example, Conspectus was established in the early nineteen-eighties by the Research Libraries Group (RLG). It applies quantitative and qualitative measures to library collections and has a rating system for library collections and parts of library collections. One of the original intentions of Conspectus was to enable researchers to identify collections rich in the subject areas in which they are researching. An implication of this is that they could choose to use these collections to progress their research. The writers see a parallel between this element of Conspectus and the role of accreditation for school libraries. There is a tradition of research that demonstrates correlations between the standard of a school library and the academic performance of its students. An extension of this is that the accreditation of a school library by a reliable accrediting body gives some assurances to parents that the school is more likely to achieve their desired academic outcomes. That is, it can help to inform their decisions relating to their children's education.

There are other obvious advantages of accreditation based on performance standards relating to the improved performance of school libraries. As noted by CILIP, a series of guidelines or standards can act "as practical guidance and material for advocacy" (CILIP, 2004, p. XIII) for those who manage school libraries. This is echoed in the IFLA guidelines for school libraries, which were "produced to inform decision makers at national and local

levels around the world, and to give support and guidance to the library community" (Saetre, 2002, p. 2). Well constructed standards can point to areas that need improvement. This point is also noted by the IBO, whose library standards were established "to encourage the development of the library as a learning resources centre in schools following the International baccalaureate programmes. (Committee for IB Librarians in Africa/Europe/Middle East, 1999, p. 1)"

The focus of this study is IB school libraries, but the expectation is that it can be extended to international schools in general. The researchers argue that standards are more effective as they become more specific. As noted by the IBO, the IB programme has specific demands that may require customisation of standards. (Committee for IB Librarians in Africa/Europe/Middle East, 1999) As most IB schools are international and non-government schools, the extension of the standards to non-IB schools is logical. Of course this would involve the solicitation of accreditation by the schools and their participation in the accreditation process.

The International Baccalaureate is an educational programme for elementary, middle, and high schools designed to provide the schools with an international curriculum intended to be acceptable for university entrance globally (Wikepedia, 2007). It is administered by the International Baccalaureate Organization (IBO), an international non-profit educational foundation, founded in 1968. Currently there are more than 582,000 IB students at 2,167 schools in 125 countries, including 19 schools in Hong Kong (International Baccalaureate Organization, 2007). The IB is becoming more influential as more schools adopt its syllabus. Resource based learning is an important element of the IB, intensifying the importance of the library. The IBO has a dedicated librarians' page which includes links to resource based learning materials.

## Methodology

The methodology was informed by a review of the literature on school library evaluation and benchmarking. The rationale for investigating evaluation techniques is that it is only worth evaluating things that matter, whether they be physical things (e.g. collections) or activities (e.g. information literacy programmes). Evaluation becomes meaningful when it involves realistic performance indicators.

Existing school library benchmarks from a range of school systems have been analysed. These benchmarks, taken as a corpus, provide a huge range of potential library areas to be included in the standards. They also display significant similarities as well as differences in the metrics attached to many of the performance indicators. Some use raw

numbers, others percentages or per capita ratios. As noted in the IFLA Guidelines, "guidelines will need to be read and used within a local context" (Saetre, 2002, p. 2). A simple example is space. In a space rich country like Australia, the standards for seating within the library are more liberal (i.e. the ASLA/ALIA standards recommend seating for 12 percent of the student population) than in other areas, such as the United Kingdom (CILIP standards recommend seating for 10 percent of the student population) where population densities are higher.

In order not to operate in a vacuum, visits to IB school libraries and interviews with teacher librarians, teachers and principals at IB schools in HK are planned. These will determine that the standards describe realistic levels of performance. Returning to the seating issue, 10 percent of students having access to seating in the library at any time would be unrealistic, due to the general limitations of space in Hong Kong. The deleterious effects of lack of seating can be mitigated by increased remote access.

## Literature review

As indicated above, accreditation needs to be based on observable and measurable features that contribute to school library performance. A review of the literature indicates that these issues frequently surface in benchmarking and evaluation of library services and collections etc. This summary literature review is drawn from education and library databases like ERIC and LISA, as well as books, websites of government agencies and professional bodies like Missouri Department of Elementary and Secondary Education, American Library Association (ALA), California School Library Association (CSLA), International Federation of Library Associations and Institutions (IFLA) and School Library Association (SLA). Throughout this paper, the terms, school librarian and teacher librarian will be used synonymously.

*School library evaluation and benchmarking*

*Introduction.* An expanding body of research indicates that the performance of the school library is closely linked to the academic achievement of its students. Lance & Loertscher (2002) state clearly that strong school library media programs make a difference in academic achievement based on findings from numerous research studies across American states such as: Alaska, Colorado, Pennsylvania, Massachusetts, Texas and New Mexico involving over 3,300 schools. School libraries with bigger budgets, bigger collections and higher levels of librarian staffing have higher reading scores (Lance & Loertscher, 2002). Well equipped quality school library media centers contribute to the academic success of their students. The issue is: what comprises a well equipped quality school library media center?

*Evaluation and Benchmarking*. To justify a claim of being an exemplary school library or have high quality library media programmes, a library needs to comply with accepted professional standards established by authoritative organizations or related government departments. To achieve this goal, regular and robust evaluation of the library is essential. Through evaluation and comparison benchmarks, school libraries can identify their level of quality relative to other similar libraries within broad bands. Where deficiencies are identified, improvements can be undertaken. This continuous improvement is a crucial procedure for school library accreditation processes. Evaluation of the school library has multiple facets. The physical environment should support its role as a whole-school learning resource at the heart of the school community (CILIP, 2004). In an era of unparalleled information growth, being information literate is essential, "learning how to learn has become as important as the learning of the disciplines themselves" (Committee for IB Librarians in Africa/Europe/Middle East, 1999). Dzikowski (2003) found that students in schools with professional library media specialists perform better on achievement tests for reading comprehension and basic research skills confirming that professional library media specialists pay an important role in the library. In *Standards and Guidelines for Strong School Libraries* (Abilock, 2004), standards for different levels of library staff, library media teachers, library media supervisors and paraprofessionals, are described in detail. Though international standards are usually good guidelines, librarians should not neglect the individual characteristics of local users. Adjustment should be made to fit the needs.

The accreditation process mainly performs two primary functions: quality assurance and institutional improvement. Quality assurance acts as a tool to help organizations meet standards relating to the specific services provided. The other function is institutional improvement, where accreditation provides a review of different components of institutions, which assist and stimulate improvement to work towards the goals (Dalrymple, 2001).

The elements of a school library accreditation process should include the following:

*Staffing*. Staffing is an essential resource to operate an effective school (School Library Association, 1989). The number of staff required for a school library will depend on type, size and demands of the school. The SLA recommends that each school should have a teaching staff with responsibility for the development of library resources. The library should be staffed throughout the school day to help library users and to keep the library open. The person in charge of the library (a) chartered librarian and (b) teacher librarian to manage the library. Other levels of staff may be assigned to the operation of the school library, e.g. clerical assistants to assist in circulation process and non professional tasks; technical assistants to solve IT issues; parent and pupil volunteers trained by the librarian to assist

library in different functions. Similarly, the South Dakota Library Association (2005) recommends that the school should have at least full-time certified librarian and clerical staff.

Ideally the teacher librarian should have qualifications in both information management and education (ie. librarianship and teaching qualification). He or she should have knowledge about curriculum development, resource management and information technology systems (Australian Association of School Librarians & Australian Library & Information Association, 2007). IFLA (Saetre, 2002) found that a quality school library consists of both full time and part time library staff, and also volunteers (e.g. student helpers and parent volunteers) to support some daily operations.

*Collection*. The school library must have resources appropriate to meet the curriculum needs in quantity and quality (Massachusetts School Library Media Association, 1997). The collection should be: accessible to all users; curriculum relevant; be up to date; and user appropriate. A later study (Australian Association of School Librarians & Australian Library & Information Association, 2007) provides guidelines for selection of library resources. Library resources should be "selected by professional staff with knowledge of curriculum, learning styles, collection development, ICT and resource-selection tools (e.g. book reviews)". Other issues such as censorship and intellectual freedom in the selection process should be considered. The resources should encompass a variety of formats include print and non print items, which match the needs of student learning, so the ratio of print and non print items should have a balance between different needs. Also the currency of the collection, represented best by median age should be monitored regularly to keep it at less than ten years depending on the nature of the resources.

## Frameworks used

A range of documents dealing with school library benchmarks were derived from North America, Australasia and Europe. They include standards from international, national and provincial school and library associations. Although there are other potential sources that have similar content, the researchers believe that saturation was achieved using the sources below. The following documents were analysed to contribute to the recommended framework: Massachusetts School Library Media Association, *Standards for School Library Media Centers in the Commonwealth of Massachusetts* (1997); National Library of New Zealand, *School Libraries in New Zealand* (Slyfield, 2001); Australian School Library Association & ALIA, *Learning for the Future*. 2nd ed (2001); IFLA/UNESCO, *School Library Guidelines (Saetre, 2002)*. Minnesota School Library Media Association, *The results of the school library media program census* (U.S. Department of Education, 2006); South Dakota Library Association & School Library Standards Committee, *South Dakota School*

*Library Standards* (2005); California School Library Association, *Standards and Guidelines for strong school libraries* (Abilock, 2004); Missouri Department of Elementary & Secondary Education, *Standards for Missouri School Library Media Centers* (2005); Booktrust School Libraries Research, *Booktrust School Libraries Research* (2007); CILIP, *CILIP guidelines for secondary school libraries*, 2nd ed (2004); National Library of Canada, *Elementary and Secondary Schools: The Role, Challenges and Financial Conditions of School and School Library Resources in Canada* (2001); Committee for IB Librarians in Africa/Europe/Middle East, *Guidelines for School Libraries* (1999).

Of the published resources, the researchers consider that the CILIP, IFLA/UNESCO, ASLA/ALIA and California School Library Association (CSLA) reports provide comprehensive, holistic, and detailed indicators that are appropriate for international secondary school libraries. The IB Guidelines, customized to the IB situation are also apposite. These provide the basis for the bulk of the recommended accreditation standards, supplemented by the other sources where appropriate. Interviews with experts in the field were also conducted to surface other factors that teacher Librarians considered important for providing high-level library services. Categories representing the range of school library activities were extracted from these documents and interviews and where suitable, numeric indicators were applied to them in order to identify the level of school library performance. A survey is planned for a sample of IB school libraries in Hong Kong to gauge realistic levels of performance. At the time of writing, the data had not been analysed.

**Accreditation levels**

A number of frameworks have a multi-level rating scheme with 3 levels, for example:

| Framework | Lowest level | Middle level | Highest level |
|---|---|---|---|
| South Dakota School Library Standards | At risk | Basic | Exemplary |
| California School Library Association | At risk | Making progress | Exemplary |
| National Library of New Zealand | Needs developing | Developing | Good/standard/ satisfactory |
| Minnesota Educational Media Organization | Minimum | Standard | Exemplary |

*Table 1: Three-tiered accreditation schemas*

Not all systems use a three-level scheme. For example, Massachusetts School Library Media Association and Texas School Libraries (Ester & EGS Research & Consulting, 2001) both adopt a four-level schema.

| Framework | Lowest level | Middle levels | | Highest level |
|---|---|---|---|---|
| Massachusetts School Library Media Association | Deficient | Basic | Proficient | Exemplary |
| Texas School Libraries | Below standard | Acceptable | Recognized | Exemplary |

*Table 2: Four-tiered accreditation schemas*

The researchers have adopted the three tier structure and used the following terminology:

| Level | Label | Description |
|---|---|---|
| Lowest | Conditional | Accreditation based on improvements to….. |
| Middle | Satisfactory | Library supports and sustains critical teaching and learning activities within the school |
| Highest | Exemplary | To be used as a model/exemplar for other libraries to emulate. Library exceeds satisfactory levels of support for critical teaching and learning activities within the school in a number of areas |

*Table 3: Recommended three-tiered accreditation schemas*

The researchers consider that it is not appropriate to completely withhold accreditation from a school library that does not reach the minimum required standards. Rather, it is more desirable to make recommendations for improvement that, if achieved, will lead to accreditation for underperforming school libraries. A potential risk of establishing such standards is that they may become defacto *minimum* standards. This is undesirable as it may retard the progression towards excellence. So the third category is that of exemplary, which matches a number of school library standards. The identification of exemplars can provide a model for other schools to learn from and apply, where appropriate, to their local conditions.

## Categories for evaluation

The following entries include samples from the benchmarks, surveys and other relevant documents plus recommended levels.

*Collections*

**Size**: 8 books per pupil (Booktrust); 10 books per student (IFLA); 12 items per student (New Zealand); 17 items per student (CILIP, ASLA/ALIA); 20-25 items per user, including access to outside collections (IBO); 22 items per student (Massachusetts). Recommended: Satisfactory - 15-25 items per student; Exemplary - more than 25 items per

student.

*Collection currency – i.e. publication date of collection.* 70% of entire collection will have a copyright date no later than 10 years (Massachusetts). Average copyright year 10 years before current date (Minnesota); average age of less than 10 years (ASLA/ALIA). 10% of library stock to be replaced annually (CILIP). Recommended: Satisfactory – median age of 10 years or less; Exemplary - median age of collection less than 7 years.

*Popularity – based on circulation statistics and in-house usage statistics.* Recommended: Satisfactory - recording and analysis of circulation statistics to identify over- and under-used parts of the collection; Exemplary - recording and analysis of circulation and in-house usage statistics to identify over- and under-used parts of the collection.

*Fiction: non-fiction ratio.* 1:4-1:5 (CILIP); At least 60% of stock should consist of curriculum related non-fiction resources (IFLA). Recommended: Satisfactory - fiction: non-fiction -1:4-1:5; no Exemplary recommendation.

*Serials, newspapers etc.* Median access to 20 full-text titles (New Zealand); access to 40-100 full text titles include print and electronic depending on school size (Massachusetts); 0-23, at risk, 24-49, making progress, 50+ exemplary (California). Recommended: Satisfactory - provide access to at least 20 print and online periodical databases; Exemplary - provide access to at least 50 print online periodical databases and print periodicals.

*Different media, e-resources, audio visual, links to free internet resources etc.* Titles should equal 1% of total print collection (Massachusetts); 30% of the collection budget allocated to non-print materials; audio visual materials at least 33% of print materials budget (South Dakota). Recommended: Satisfactory - non-print materials should total at least 1% of total print titles; Exemplary - non-print materials should total at least 2% of total print titles based upon collection development policy.

*Collection focused on curriculum.* Resource Based Learning etc: at least 60% of collection consists of curriculum-related resources (IFLA); be curriculum relevant and be user appropriate (Massachusetts); meet curriculum needs and student interests (South Dakota); appropriate levels for all resource-based units and meet personal and recreational needs (ASLA/ALIA). Recommended: Satisfactory - at least 60% of collection consists of curriculum-related resources; no Exemplary recommendation.

*Online databases*. Electronic subscription services total at least 3% of total collection (ASLA/ALIA); Audio visual materials at least 33% of print materials budget, computer software/online resources at least 40% of print materials budget (South Dakota). ; no Recommendation: Satisfactory - electronic subscription services total at least 3% of total collection; Exemplary - electronic subscription services total at least 10% of total collection with multiple simultaneous usage to online database.

*Professional collection for Teacher Librarian*. Basic- less than US$100 per annum spent on professional library resources, exemplary- more than US$100 per annum spent on professional library resources (South Dakota). Recommended: Satisfactory - at least US$110 per annum spent on professional library resources; Exemplary - more than US$110 per annum spent on professional library resources.

*Collection development policy*. Elements should include: statements of intellectual freedom, freedom of information, purpose of the collection management policy, long and short term objectives (IFLA). Recommended: Satisfactory - policy should describe: process of analysis, selection and evaluation, followed by the collection development policy. It should also include Challenged titles policy and Weeding/deselection policy (see below). Policy should be ratified by the school board (or equivalent body) and be updated every three years; Exemplary - as above and policy should be updated annually.

*Weeding/deselection policy, including numeric guidelines for weeding/ deselection*. Worn and inappropriate material is discarded, with at least 10% items replaced annually (ASLA/ALIA, SLA, IBO). Recommended (1): Satisfactory - weeding is performed on a regular basis; Exemplary - weeding is performed applying the collection development plan which defines deselection criteria according to written standards, e.g. age of materials, non-usage of materials etc. Recommended (2); Satisfactory at least 10% items replaced annually; Exemplary - at least 10% items replaced annually, with particular attention to tine sensitive materials e.g. IT materials, which should generally be replaced/discarded every 2-3 years.

*Annual acquisitions budget*.  $3-$15 per student for books (Association of Canadian Publishers); £4.28 per head (survey) £14 (recommended) (Booktrust); median per student budget for library resources of $14 (New Zealand); satisfactory, at least US $16 per student; exemplary US$30 per student (South Dakota). Recommended: Satisfactory -US$33 per student; Exemplary - US$40 per student.

*Regular evaluation of collection using collection mapping or similar framework*.

Schools should apply existing guidelines for stocking and maintaining school libraries (Booktrust); performance statistics to determine which sections of stock need investment (IBO); involve students and staff by encouraging them to identify stock gaps and recommend purchases, carry out annual stock checks and regular reviews and evaluation of stock, to measure relevance to existing demands and plan for future development (CILIP). Recommended: Satisfactory - regular evaluation of the quality and quantity of the collection, using established methodologies such as collection mapping and RBH.

*Facilities*

*Function and use*. Custom built library, dedicated to library use, reading areas, ICT areas, group study areas (SLA); exclusively for activities related to reading and learning (Booktrust). Recommended: Satisfactory - dedicated and permanent space for quiet reading, use of IT, group study, multimedia; Exemplary - as above with custom built and exclusive use for library that allows for expansion and remodeling.

*Location*. On one floor only, preferably the ground floor (CILIP); central location, on the ground floor (IFLA); ground floor with vehicular access (SLA). Recommended: Satisfactory - not centrally located but easy to access; matching local building requirements such as: fire safety, disabled access, etc; Exemplary - one floor, centrally sited, easy access and with vehicular access.

*Space*. Seating for 10 percent of school's students (CILIP/SLA); 12 percent (ASLA/ALIA); 5-10 percent (IBO). Recommended: Satisfactory - seating for 5-10% of students; Exemplary - seating for more than 10% of students. Gross space 0.413-0.463 m2/student (CILIP); 0.57 m2/student (ASLA/ALIA). Recommended: Satisfactory - 0.38-0.463 m2/student; Exemplary - greater than 0.463 m2/student

*Environment*: Temperature, lighting, colour scheme, music, ventilation, signage all need to be taken into account for different types of users (CILIP); safety, good lighting, functional and aesthetic appearance (IFLA); ergonomically appropriate furnishings, good lighting and sound control, attractive colors and textures (Massachusetts). Recommended: Satisfactory - the environment meets with basic standards, e.g. inappropriate colour schemes (e.g. red and hot orange) are not chosen; proper lighting, sound control (no sound); Exemplary - all factors considered at design stage and librarians work closely with architects and designers, refer to library standards, e.g. temperature <70F, 50 percent relative humidity for general library, demonstrate flexibility to suit different learning styles, e.g. co-existence of sound control zones, with soft music area and silent areas.

*Library budget*. Specific library budget (i.e. not incorporated into other department budgets) and mandated percentage of school budget: at least 5 percent of per student expenditure (IFLA); 10 percent annual replacement + 5 percent growth (IBO); 1-3 percent of school's instructional budget (Texas). Recommended: Satisfactory - 5 percent student expenditure; Exemplary - over 5 percent student expenditure.

*Equipment*

*Photocopier, colour photocopier*. A photocopier is useful to have in a library (IB). Recommended: Satisfactory - black & white photocopier; Exemplary - colour photocopier.

*Fax machine*. Spare phone lines for fax (ASLA/ALIA). Recommended: Satisfactory - access to school fax machine; Exemplary - fax machines within the library.

*Printer*. At least one laser and inkjet printer (Minnesota). Recommended: Satisfactory - one laser printer; Exemplary - more than one colour laser and inkjet printer.

*Scanner*: Provide access to scanning equipment (IFLA). Recommended: Satisfactory - access to scanning equipment only; Exemplary - scanning equipment available within the library.

*Computer*. 1 workstation for each library staff (ASLA/ALIA); including electronic catalog, circulation system, connect to LANs and WANs (Missouri). Recommended: Satisfactory - staff and students have individual access to computers; Exemplary - for students and teachers to access the information resources provided through the library, access to adequate terminals throughout user areas.

*Standalone workstation – eg with internet access, with workstation and internet access, with wireless network*. 401-800 students at least 16 workstations (Massachusetts); no. of workstations equal to or greater than1/3 of class size (Missouri). Recommended: Satisfactory – computers for 1/3 of average class size; Exemplary - computers for more than 1/3 of average class size.

*Laptop - internal use, external use*. At least one portable computer (Minnesota). Recommended: Satisfactory - laptop only for internal use; Exemplary - laptops can be lent for external use (both students and teachers).

*Computer software (e.g. MS Office)*. Be accessible to all users, curriculum relevant, up to date, user appropriate (Massachusetts). Recommended: Satisfactory - provide

training for library staff and provide up-to-date software. Exemplary – as above plus sufficient time to evaluate software and applicability to the school curriculum.

*Multimedia equipment, eg camera, video camera, Digital Video Disc (DVD), Player Compact Disc (CD) Player*. Provide access to audiovisual equipment (IFLA); enable students and faculty using a variety of equipment to creatively design, produce and make presentations (Missouri). Recommended: Satisfactory - provide access for in house use only, Exemplary - have range of multimedia equipments on loan to students and teachers for learning purpose.

*Services*

*User education/information literacy classes*. Information literacy programmes are the most important tasks of the library (IFLA); librarian should be responsible for the teaching (SLA); integrate IL standards correlated to the state standards; librarian is the key person in delivery of IL skills across the curriculum (CILIP). Recommended: Satisfactory - IL classes are provided regularly; Exemplary - IL classes are provided correlated to local/nation standards.

*Library Orientation*. Basic introduction to the library should be given to all new students (CILIP). Recommended: Satisfactory - customized orientation provided for all new students and staff; Exemplary - as above plus extension to parents and use of ICT such as virtual library tour etc.

*Library classes, eg for RBL, special topics etc*. Students complete all resource-based projects required (Minnesota). Recommended: Satisfactory - classes provided for general library instruction and on-demand by teachers; Exemplary - as above plus use of pathfinders and ICT for special topics.

*Reference and circulation*. Loans desk should not present a barrier to effective interaction with any user (CILIP); circulation desk should not create a barrier to users (Massachusetts). Recommended: Satisfactory - low rise circulation desk; Exemplary - low rise circulation desk and self-charging system, plus distinct reference and circulation desks.

*Interlibrary lending*. Library staff borrow materials from other libraries (South Dakota). Recommended: Satisfactory - cooperate in local school interlibrary loan system; Exemplary - cooperate in local school interlibrary loan system and nationwide school interlibrary loan system.

*Library website*. School website is a means of communicating with parents (CILIP); library media teacher should maintain a school library website (CSLA). Recommended: Satisfactory - introductory library web pages; Exemplary - up-to–date library website with breadth and depth.

*Online catalogue (OPAC)*. Card index system for small collection, computerized system for larger collections (IBO); must provide public access catalogues (IFLA). Recommended: Satisfactory – OPAC that matches performance specifications; Exemplary – as above, including remote access.

*Remote access to library services (e.g. from home)*. 51 percent (Minnesota). Recommended: Satisfactory - students gain remote access to part of the library services; Exemplary - students have full library services through remote access.

*Internet access*. 92-95 percent of libraries have Internet access (Texas); sufficient for at least half a class to use at any one time (CILIP); must have computer work stations with Internet access (IFLA). Recommended: Satisfactory - Internet access; Exemplary - sufficient bandwidth for a class to use at any one time.

*Information policies*. Transparent and up-to-date policies should be drafted jointly with teaching staff and senior managers, subject to regular review (IFLA); involve stakeholders in policy making, reviewed annually (CILIP). Recommended: Satisfactory – appropriate policies in place; Exemplary – as above plus policies reviewed annually by a committee formed by stakeholders.

*Opening hours*. During lesson time and preferably outside these hours (IBO); school hours including break and lunch times plus before and after school hours (CILIP); 30-40 hours weekly during school hours (Minnesota). Recommended: Satisfactory - flexible access for 35 hours weekly during school hours plus one-half hour before and after school; Exemplary - flexible access over 40 hours weekly during school hours plus at least one hour before and after school.


*Human resources*

*Teacher Librarian(s)/certified school librarian – appropriate qualifications*. Ongoing in-service training, continuing professional development, conference attendance etc: 401-800 students will have 1 full time certified media specialist (Massachusetts); 300-799 students 2 FTE certified librarians (South Dakota). Recommended (1): Satisfactory - at least 1 FT teacher librarian; Exemplary - more than 2 FT teacher librarians. Degree or

postgraduate qualification in librarianship or information management (CILIP); professional librarian has a degree in information and library science or a degree in another subject with a postgraduate diploma/certificate in librarianship (IB). Recommended (2): Satisfactory - professional librarian with a degree of librarianship; Exemplary - professional librarian with a postgraduate qualification in librarianship or information management. School provides training to school librarian (CILIP). Recommended (3): Satisfactory - school provides professional development training in educational purpose and training sponsorship for school librarian; no Exemplary recommendation.

*Para–professionals – appropriate qualifications*. Ongoing in-service training, continuing professional development etc: Library should have 1 paraprofessional assistant to 500 students (IBO); 401-800 students will require 2 FT support staff support library media specialist (Massachusetts). Recommended (1): Satisfactory - 1 paraprofessional to support librarian; Exemplary – at least 2 FT paraprofessionals to support librarian. Library assistant requires clerical skills, technological knowledge and basic library training (IFLA); FT support staff with broad based skills (Massachusetts). Recommended (2): Satisfactory - require basic library skills; Exemplary - require both library skills and technical knowledge.

*Student helpers – appropriate training*. Should not be considered as substitutes for trained library staff, requires supervisor and training (Nebraska). Recommended: Satisfactory – a student librarian programme is established; no Exemplary recommendation.

*Volunteers - appropriate training*. Work as support based in school library activities (IFLA); Library media professional responsible to train adult volunteers, systematic training for volunteers (CSLA), satisfactory provide training to volunteer; exemplary provide orientation and schedule to volunteers, volunteers assist in many ways, not solely operated in any program (Minnesota). Recommended: Satisfactory – volunteers are welcomed by library and trained appropriately; no Exemplary recommendation.

## Collaboration/networking: recommendations

The following requirements would be applied to the Satisfactory level; there are no Exemplary measures.

*Collaboration with teachers*. Evidence of participation in curriculum development, e.g. member of the curriculum development committee (or equivalent; ongoing participation in resource based units of study; collaborative collection development.

*Collaboration with other schools*. Evidence of communication with other teacher librarians for joint activities, eg interlibrary lending, advocacy, reading activities (e.g. Battle

of the Books, International School Library Day) etc.

*Communities of practice*: Evidence of networking with other school librarians for professional development, regular meetings, sharing of ideas etc.

*Collaboration with public libraries*. Exploring collaborative collection development, information skills instruction etc.

*Collaboration with academic libraries*. Visits by senior students to experience academic library environment, borrowing privileges for advanced students etc.

## Further study

This paper represents an exploration of the potential components of an accreditation scheme. Further investigation is required to confirm that the recommendations are reasonable, i.e. they can be achieved (or surpassed) by a critical mass of IB and international schools. Ideally this would lead to a piloting of the scheme, across continents.

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## Statement of Originality

This statement certifies that the paper above is based upon original research undertaken by the authors and that the paper was conceived and written by the authors alone and has not been published elsewhere. All information and ideas from others are referenced.
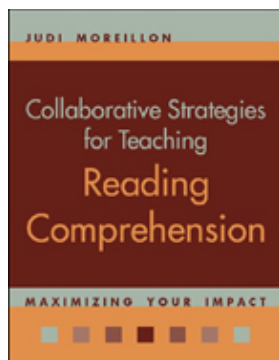
# Maximizing Your Impact:
## Coteaching Reading Comprehension Strategies

International Association of School Librarians Conference
Berkeley, California – 4 August 2008

Presented by Judi Moreillon: info@storytrail.com
and Keisa Williams: keisa.williams@aspirepublicschools.org

**The Big Ideas:** 7 Reading Comprehension Strategies and Metaphors bookmark:
http://www.ala.org/ala/ourassociation/publishing/alaeditions/webextras/moreillon09294/Moreillon_supplement2D-color.pdf

**Selected Research-based Instructional Strategies** (from Marzano, Pickering and Pollock, 2001)

| Category | Percentile Gain |
|---|---|
| Identifying similarities and differences | 45 |
| Summarizing and note taking | 34 |
| Nonlinguistic representations | 27 |
| Cooperative learning | 27 |
| Setting objectives and providing feedback | 23 |
| Questions, cues, and advance organizers | 22 |

**Coteaching Strategies** (adapted from Friend and Cook, 1996)

| | |
|---|---|
| **One Teaching, One Supporting** | One educator is responsible for teaching the lesson while the other observes the lesson, monitors particular students, and provides assistance as needed. |
| **Center Teaching** | After determining curriculum content for multiple learning centers, each educator takes responsibility for facilitating one or more learning centers. In some centers, students may work independently of adult support. |
| **Parallel Teaching** | After collaborative planning, each educator works with half the class to teach the same or similar content. Groups may switch or reconvene as a whole class to share, debrief, and reflect. |
| **Alternative Teaching** | One educator preteaches or reteaches concepts to a small group while the other educator teaches a different lesson to the larger group. (Preteaching vocabulary or other lesson components can be especially valuable for English language learners or special needs students.) |
| **Team Teaching** | Educators teach together by assuming different roles during instruction, such as reader or recorder or questioner and responder, modeling partner work, role playing or debating, and more. |

**Recommended Professional Texts:**

1. *7 Keys to Comprehension: How to Help Your Kids Read It and Get It!* (pre-K-5) by Susan Zimmermann and Chryse Hutchins (Three Rivers, 2003)
2. *Classroom Instruction that Works: Research-based Strategies for Increasing Student Achievement* (K-12) by Robert Marzano, Debra Pickering, and Jane Pollock (ASCD, 2001)
3. *I Read It, But I Don't Get it: Comprehension Strategies for Adolescent Readers* (6-12) by Cris Tovani (Stenhouse, 2000)
4. *Interactions: Collaboration Skills for School Professionals (K-12)* by Marilyn Friend and Lynne Cook (Longman, 1996)

*Collaborative Strategies for Teaching Reading Comprehension: Maximizing Your Impact* -
Book available from ALA Editions. **Web site Support**: http://storytrail.com/Impact/index.htm
**Contact** Judi Moreillon at: info@storytrail.com

**Alignment Matrix - Reading Comprehension Strategies and Standards for the 21st-Century Learner – Compiled by Judi Moreillon**

| Reading Comprehension Strategies | Standards for the 21st-century Learner (AASL) |
|---|---|
| Background Knowledge | Use prior and background knowledge as context for new learning. (1.1.2)<br>Connect ideas to own interests and previous knowledge and experience. (4.1.5)<br>Recognize when, why, and how to focus efforts in personal learning. (4.4.3) |
| Sensory Images | Use visualization and imagination to strengthen understanding (comprehension) and enjoyment. (Judi's inference) |
| Questioning | Develop and refine a range of questions to frame search for new understanding. (1.1.3)<br>Find, evaluate, and select appropriate sources to answer questions. (1.1.4)<br>Display initiative and engagement by posing questions and investigating the answers beyond the collection of superficial facts. (1.2.1) |
| Predictions and Inferences | Read, view, and listen for information presented in any format (e.g., textual, visual, media, digital) in order to make inferences and gather meaning. (1.1.6) |
| Main Ideas | Organize knowledge so it is useful. (2.1.2) |
| Fix-up Options | Monitor gathered information and assess for gaps and weaknesses. (1.4.3) |
| Synthesizing | Make sense of information gathered from diverse sources by identifying misconceptions, main and supporting ideas, conflicting information, and point of view or bias. (1.1.7) |
| All Reading Comprehension Strategies | Read, view, and listen for information presented in any format (e.g., textual, visual, media, digital) in order to make inferences and gather meaning. (1.1.6)<br>Use strategies to draw conclusions from information and apply knowledge to curricular areas, real world situations, and further investigations. (2.1.3)<br>Read, view, and listen for pleasure and for personal growth. (4.1.1)<br>Read widely and fluently to make connections with own self, the world, and previous reading. (4.1.2)<br>Respond to literature and creative expressions of ideas in various formats and genres. (4.1.3) |

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**Richie Partington, MLIS**
**Richie's Picks** http://richiespicks.com
BudNotBuddy@aol.com
**Moderator,** http://groups.yahoo.com/group/middle_school_lit/

**Hot Children's and Young Adult titles for 2008**

<u>TROUBLE</u> **by by Gary D. Schmidt, Clarion, April 2008. ISBN: 978-0-618-92766-1**

<u>THE UNDERNEATH</u> **by Kathi Appelt with drawings by David Small, Atheneum, May 2008, 314p. ISBN: 1-4169-5058-3**

<u>THE HUNGER GAMES</u> **by Suzanne Collins, Scholastic Press, October 2008, 407p., ISBN: 0-439-02348-3**

<u>LITTLE BROTHER</u> **by Cory Doctorow, Tor, May 2008, 365p. ISBN: 0-7653-1985-3**

<u>HE FORGOT TO SAY GOODBYE</u> **by Benjamin Alire Saenz, Simon & Schuster Books for Young Readers, June 2008, ISBN: 1-4169-4963-1**

<u>CHAINS</u> **by Laurie Halse Anderson, Simon & Schuster, October 2008, 314p., ISBN: 1-4169-0585-5**

<u>THE LINCOLNS: A SCRAPBOOK LOOK AT ABRAHAM AND MARY</u> **by Candace Fleming, Schwartz & Wade Books, October 2008, 176 pages, ISBN: 978-0-375-83618-3; Libr. ISBN: 978-0-375-93618-0**

<u>TEN MILE RIVER</u> **by Paul Griffin, Dial, June 2008, 196p. ISBN: 978-0-8037-3284-1**

<u>HURRICANE SONG</u> **by Paul Volponi, Viking, June 2008, ISBN: 978-0-670-06160-0**

<u>GUARDIAN</u> **by Julius Lester, Harper/Amistad, October 2008, 130p., ISBN: 978-0-06-155890-0; Libr. ISBN: 978-0-06-155891-7**

<u>THE MYSTERIOUS UNIVERSE: SUPERNOVAE, DARK ENERGY, AND BLACK HOLES</u> <u>(Scientists in the Field series)</u> **by Ellen Jackson, photos and illustrations by Nic Bishop, Houghton Mifflin, May 2008, 60p., ISBN: 978-0-618-56325-8**

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<u>THOREAU AT WALDEN</u> **by John Porcellino from the writings of Henry David Thoreau; with an introduction by D.B. Johnson, Hyperion/The Center for Cartoon Studies, April 2008, ISBN: 1-4231-0038-7 (hardcover); 1-4231-0039-5 (paperback)**

<u>RINGSIDE, 1925: VIEWS FROM THE SCOPES TRIAL</u> **by Jen Bryant, Knopf, February 2008, ISBN: 0-375-84074-8; LIBR ISBN: 0-375-94047-2**

<u>JUVIE THREE</u> **by Gordon Korman, Hyperion, September 2008, 249p., ISBN: 978-1-4231-0158-1**

THE TROUBLE BEGINS AT 8: A LIFE OF MARK TWAIN IN THE WILD, WILD WEST by Sid Fleischman, Greenwillow, July 2008, 200p. ISBN: 978-0-06-134431-2

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PLANTING THE TREES OF KENYA: THE STORY OF WANGARI MAATHAI by Claire A. Nivola, FSG/Frances Foster Books, April 2008, 32p. ISBN: 0-374-39918-2

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THE ADORATION OF JENNA FOX by Mary E. Pearson, Holt, April 2008, ISBN: 0-8050-7668-9

PEELED by Joan Bauer, Putnam, May 2008, 248p. ISBN: 978-0-399-23475-0

WAR IS...: SOLDIERS, SURVIVORS, AND STORYTELLERS TALK ABOUT WAR edited by Marc Aronson and Patty Campbell, Candlewick Press, September 2008, 200p., ISBN: 978-0-7636-3625-8

OUR WHITE HOUSE: LOOKING IN, LOOKING OUT by created by 108 renowned authors and illustrators, Candlewick Press, September 2008, 242p., ISBN: 978-0-7636-2067-7

WAITING FOR NORMAL by Leslie Connor, HarperCollins/Katherine Tegen, February 2008, 290p., ISBN: 978-0-06-0189088-9; Libr. ISBN: 978-0-06-089089-6

DOOLEY TAKES THE FALL by Norah McClintock, Red Deer Press, 2008, 314p. ISBN: 978-0-88995-403-8

THE LAST EXIT TO NORMAL by Michael Harmon, Knopf, March 2008, 273p., ISBN: 0-375-84098-2; Libr. ISBN: 0-375-94098-7

THE TRIALS OF KATE HOPE by Wick Downing, Houghton Mifflin, April 2008, 329 p., ISBN: 978-0-618-89133-7

HONEYBEE by Naomi Shihab Nye, Greenwillow, March 2008, 176p., ISBN: 978-0-06-085590-7; Libr. ISBN: 978-0-06-085591-4

SHIFT by Jennifer Bradbury, Atheneum, May 2008, 245p., ISBN: 1-4169-4732-9

AIN'T NOTHING BUT A MAN: MY QUEST TO FIND THE REAL JOHN HENRY by Scott Reynolds Nelson with Marc Aronson, National Geographic, January 2008, 64p. ISBN: 978-1-4263-0000-4

THE LONDON EYE MYSTERY by Siobhan Dowd, RH/David Fickling Books, February 2008, 324p. ISBN: 978-0-375-84976-3

SUNRISE OVER FALLUJAH by Walter Dean Myers, Scholastic, May 2008, ISBN: 0439916240

SWEETHEARTS by Sara Zarr, Little Brown, April 2008, 217p. ISBN: 0-316-01455-9

THE WILLOUGHBYS by Lois Lowry, Houghton Mifflin, March 2008, 174p. ISBN: 0-618-97974-3

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**GHOST OF SPIRIT BEAR** by Ben Mikaelsen, HarperCollins, June 2008, 154p. ISBN: 978-0-06-009007-4

**ZEN TIES** by Jon J. Muth, Scholastic Press, February 2008, 40p. ISBN: 0-439-63425-3

**WRITE NAKED** by Peter Gould, Farrar Straus & Giroux, June 2008, ISBN: 978-0-374-38483-8

# World Class Learning and Literacy Through School Libraries

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Dear Colleagues:

Welcome to the 2008 conference of the International Association of School Librarianship.  Our annual conference is a valued time to meet our colleagues and engage in face-to-face conversations about the possibilities and future of our profession.  Practitioners and researchers come together for formal presentations, hands-on workshops, and discussions that challenge us into new ways of thinking.  In presentation rooms or over a cup of coffee, we come together to discuss, share, and learn together.

The conference theme is World Class Learning and Literacy Through School Libraries, and our conference program bursts with the many possibilities proposed by this theme.  From intimate book clubs in cozy library spaces to fast-paced digital communities, from storytime to individualized reading for research, from comic books to digital audio, school libraries around the world are embracing a multifaceted variety of strategies for maximizing student learning.

Congratulations on your decision to participate. I hope you will take time during this conference to engage in these ideas, to reflect on your own current practice, to seek strategies for continual enhancement of your home program, and to share your thoughts and experiences with others.  Take advantage of this rare opportunity to meet personally with colleagues you may have met only through our listserv or publications, and return to your schools and universities with a renewed vigor and excitement about the power and potential of 21st century school libraries.
With best wishes,

James Henri
IASL President

Dear Colleagues,

It is our great pleasure to welcome you to Berkeley and to the 2008 IASL conference. We hope that this conference will give you a glimpse of what we have seen over the past year as we prepare for your visit: dynamic colleagues, progressive thinking, and collaborative spirit. Since the 1960s, the University of California, Berkeley, has been a hotbed of innovative and progressive thought, a perfect backdrop for our gathering.

When we announced our theme, World Class Learning and Literacy Through School Libraries, we were delighted with the wide range of presentations that were submitted. With visions of 21$^{st}$ century libraries that are what John Naisbett calls "High Tech, High Touch," we know that school libraries have a future in our schools.

Our special thanks to Darlene Plamenco and the staff of the Clark Kerr Conference Center for their gracious hospitality and to Peter Fleming of Smart Source Rentals for our computer and audio equipment rental. Our colleagues in the UC – Berkeley library system have been generous with their hospitality. Karen Bonanno, IASL's Executive Secretary, has supported us throughout this journey. David Loertscher and Hi-Willow graciously printed this program book. We appreciate the support and collegiality of the vendors in our Exhibit Hall. We welcome Luisa Marquardt, representing the IASL 2009 Conference Committee, and wish her team the best as they prepare for IASL 2009 in Padua, Italy.

Most importantly, we are grateful to the IASL members who have donated time and talents to this conference, coordinating Special Interest Groups and their activities, reviewing program proposals, volunteering as session hosts, and much more.


With best wishes for a successful conference,

The 2008 Conference Committee

Dr. Blanche Woolls, Conference Coordinator
Kristin Fontichiaro, Program Chair
Dr. Marcia Mardis, Research Forum Chair
Dr. Carrie Gardner, Treasurer
Betty Grebey, Exhibits Chair
Kay Hones, Local Arrangements Co-Chair and Program Committee
Jean Jay, Local Arrangements Co-Chair
Tom Kaun, Local Arrangements Co-Chair
Ann Carlson Weeks, Program Committee
Becca Todd, Local Arrangements
Mary Walfoort, Local Arrangements

# General Information

**Archives –** Gerald Brown (Canada) will be coordinating Thursday morning's showcase of the IASL archives. Stop by between 9:30am – 11am to see documentation from IASL's past.

**Auction –** From Gerald Brown (Canada), our auctioneer: The auction is a fund-raising event. It's a fun event for everyone. Delegates have brought treasures from their local community, school or region. You are invited to view these areas in the Garden Room throughout the conference.

1. The *SILENT AUCTION* gives everyone a chance to bid on his/her favorite item. Look for the number of the item, and then find the sheet of paper with the same number. Put down your name and your bid in whole US dollars. Come back often to see that someone else hasn't bid more money than you did. If someone has, you can bid again, as many times as you like. The silent auction items are sold at various times during the conference at the discretion of the auctioneer. Check often to see if your item has a sold sticker or if your name appears on the notice board by the Front Desk (Building 1). Then come to the treasurer, pay your bill, and take your goods. You must pay before you can pick up your item!

2. The *LIVE AUCTION* is for specially designated items and will be held following Wednesday evening's banquet. These items will be on display in the Garden Room in advance. Have a look at these items on display, and decide which one you want to buy to take home. Come and bring your money! You'll soon discover how it works *and* how competitive librarians can become.

3. We will have a *RAFFLE* this year, too. Tickets are available from Auction Central in the Garden Room. Tickets will be drawn at least three times per day. If your number is drawn, you can come and select an item of your choice from the "Raffle Items" table. Some fine quality items can be had for a small sum. Of course, buying lots of tickets increases your chances! All money exchange will be in US funds. All funds raised will be put towards the Leadership Development Fund and to the Support-a-Member and Support-an-Association Funds.

**Copies and Faxes -** A copy machine is located in the lobby. The cost is $0.10 per copy. Faxing is available at the front desk for a fee. For larger copy runs, Krishna Copy (2595 Telegraph Avenue, Berkeley) is within walking distance. Call (510) 549-0506 for directions.

**Check-In and Check-Out for Dorms -** Student conference staff will check in each guest and distribute room keys, meal cards and site information. The front desk telephone number, (510) 642-6290, is posted outside of the Administration Building (Building 1) for those guests arriving after 11:00 pm. Keys are due to the Front Desk no later than noon on your departure day. Room doors lock automatically behind you. A nonrefundable fee of $75 will be charged if keys are not returned.

**Dining Services -** If you purchased a meal plan or dorm accommodations, you will receive meal cards valid for all meals in the package, at check-in. All meals will be provided in the Clark Kerr dining facility (Building 10).

**Drinking Water -** Water from faucets and drinking fountains in the US is drinkable unless specifically noted. Water bottles are available for purchase from the California School Library Association's booth in the Exhibits.

**Drugstore/Pharmacy -** Walgreens (2187 Shattuck Ave., Berkeley), near the Berkeley BART station, has photo service, snacks, pain relievers, and office supplies. (510) 849-4691.

**Exhibits -** The Garden Room will host our vendor exhibits on Monday and Tuesday. IASL exhibits, including posters, the silent auction, the Children's Book and Locally Produced Materials Exhibits, and the International School Library Month program, will be on display for the duration of the conference, with a dedicated session 9:30 – 11:00am on Thursday.

**Front Desk -** The Clark Kerr Campus Front Desk is located in the Administration Building (Building 1) and is open daily from 7:00 am to 11:00pm. The telephone number is (510) 642-6290 and should be used to relay messages only. The bulletin board in the lobby is used to post messages.

**International Book Exhibit –** Drop off a children's or young adult book for display throughout the conference in the Garden Room. Enjoy viewing the wide variety of offerings from around the world. Following the conference, the books will be donated to a Native American reservation. This exhibit is chaired by Ruth Cady (USA).

**Internet Access -** Computers with printers are available at no charge in the Administration Building (Building 1) from 7:00am to 11:00pm. Please give presenters priority access prior to their presentation. Wireless access is available in the dorms and Conference Center; please see the registration desk for the password information. Wired access is available in the dorms (you provide the Ethernet cable). There is no support staff to assist guests with software or email problems.

**Laundry -** Coin-operated washers and dryers are available. Laundry room locations are posted in the residence lobbies. Irons and ironing boards may be borrowed from the Front Desk.

**Locally Produced Materials –** Please bring your locally produced materials to the exhibit in the Garden Room. This exhibit will be open throughout the conference so you can browse the materials created by others to support their school library media program. This exhibit is chaired by Fran Luther (USA).

**Mail/Post -** Stamped, outgoing mail may be placed in the U.S. mail slot located at the front desk. Handle other mailing needs at the U.S. Post Office.

**Medical Care -** Dial 911 if you have a medical emergency. If you have non-urgent medical needs, the Conference Center's reception desk can provide medical information.

**Personal Safety -** Please be aware of your surroundings when traveling through Berkeley and the Bay Area.  Bear Walk is a free walking escort in conjunction with the Night Safety Shuttle to nearby residences, public transportation or parking facilities from 7:30pm – 7:00am.  Call 642-WALK (642-9255).  Service boundaries are Cedar (N), Prospect/Highland Place (E), Parker (S), and Shattuck (W).  Hours and service availability are subject to change; visit police.berkeley.edu for current information. The Owl Line Night Safety shuttle service can be reached at 624-WALK and picks up and drops off passengers by phone request daily between 3am and 6am within service area boundaries.

**Public Transit and Airport Shuttles –** Visit http://conferenceservices.berkeley.edu/conf_svcs_directions.html for airport and local transportation information. In the Bay Area, dial 511 for information on public transportation  To get between the Conference Center and the downtown Berkeley BART station (for travel to San Francisco Airport and downtown San Francisco), a taxi costs approximately $8, the #51 AC Transit bus (http://www.actransit.org) is $1.75 one way, or it is approximately a 30-minute walk.   The reception desk can provide local information and maps.  For information on BART, visit http://www.bart.gov.

**Recreation Activities -** The Golden Bear Recreation Center behind the Clark Kerr campus has a jogging track, tennis courts and swimming pool; the pool fee is $5 per person per day.   The Strawberry Canyon Recreation Area, the Recreational Sports Facility (RSF), and Hearst Gymnasium and Pool are available to conference guests for a fee.  Strawberry Canyon has two pools and barbecue areas.  The RSF has a swimming pool, weight rooms, handball, squash, and racquetball and tennis courts.  The current daily entry fee for Strawberry Canyon is $5.00 per person (pool access only), $10.00 per person (pool & weight room access) and $10.00 per person at the (RSF) and Hearst Gym.  RSF visitors must be 16 years or older and show photo I.D.

**Taxis –** Call Yellow Cab at (1-800) 505-TAXI, (1-800) 505-8294 or local numbers (510) 234-5555 or (510) 644-1234.  The Conference Center address is 2601 Warring St., Berkeley.  In the US, tipping a taxi driver is customary.

**Telephone Services -** You may receive telephone messages at the Front Desk.  Messages you receive will be posted on the lobby message board.  Please check the board frequently if you are expecting messages.  Campus and local called are free; calls outside the local radius (12 miles) and long distance calls must be charged to calling cards or major credit cards.  Dialing instructions are in each room and are available at the unit office. The Front Desk does not sell calling cards, but are available in the Campus Bookstore and other local stores.

## Clark Kerr Campus Center



**First Floor**

**Second Floor**
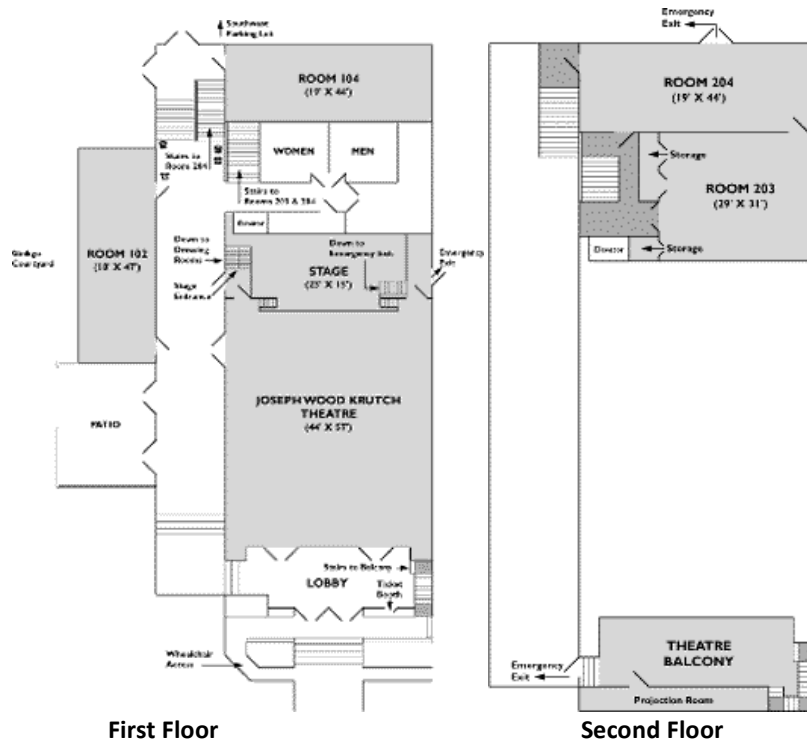
## For other locations, please see the map on the back cover.

# Schedule at a Glance

## FRIDAY, AUGUST 1

| | |
|---|---|
| 6:00pm | Dinner |

## SATURDAY, AUGUST 2

| | |
|---|---|
| 7:00am | Breakfast |
| 9:30am | Departure for winery/school tour |
| 9:00 am – 12:00pm | Executive/Board Meeting |
| 12:00 – 1:00pm | Lunch |
| 1:00 – 5:00pm | Continuing Executive/ Board Meeting |
| 6:00pm | Dinner |

## SUNDAY, AUGUST 3

| | |
|---|---|
| 7:00am | Breakfast |
| 9:00 am – 12:00pm | Morning Preconferences |
| 12:00 – 1:00pm | Lunch |
| 1:00 – 4:00pm | Afternoon Preconferences |
| 6:00pm | Dinner |
| 7:00 – 8:00pm | Welcome Reception and Awards Ceremony |

## MONDAY, AUGUST 4

| | |
|---|---|
| 7:00am | Breakfast |
| 8:30 – 10:00am | Opening Ceremonies & Plenary: Stephen Krashen |
| 10:00 – 4:00pm | Exhibits Open |
| 10:00 – 10:30am | Coffee Break in Exhibits |
| 10:00am – 12:00pm | Poster Presenters Set Up |
| 10:30 – 11:15am | Session A |
| 11:30 – 12:15pm | Session B |
| 12:30 – 1:00pm | Storytelling Break in Theatre |
| 1:00 – 2:00pm | Lunch |
| 2:00 – 2:45pm | Session C |
| 2:45 – 3:15pm | Tea |
| 3:15 – 4:00pm | Session D |
| 4:15 – 5:00pm | Session E |
| 5:30 – 7:00pm | Dinner |
| 7:00 – 8:30 | Storytelling Evening |

## TUESDAY, AUGUST 5

| | |
|---|---|
| 7:00am | Breakfast |
| 8:30 – 9:45am | Plenary: James Herring |
| 9:45 am – 4:00pm | Exhibits Open |
| 9:45 – 10:30am | Coffee in Exhibits |
| 10:30 – 11:15am | Session F |
| 11:30 – 12:15pm | Session G |
| 12:30 – 1:00pm | Poetry Break |
| 1:00 – 2:00pm | Lunch |
| 2:00 - 2:45pm | Session H |
| 2:45 – 3:15pm | Tea |
| 3:15 – 4:00pm | Session I |
| 4:15 – 5:00pm | Assembly of Associations |
| 6:00 – 7:00pm | Dinner |
| 7:00 – 9:00pm | Multicultural Evening |

## WEDNESDAY, AUGUST 6

| | |
|---|---|
| 7:00am | Breakfast |
| 8:30 – 9:45am | Plenary: David Loertscher and Ann Carlson Weeks |
| 9:45 – 10:15am | Coffee Break |
| 10:15 – 11:00am | Session J |
| 11:15 – 12:00pm | Session K |
| 12:15 – 1:00pm | Session L |
| 1:00 – 2:00pm | Lunch |
| 2:00 – 2:45pm | Session M |
| 2:45 – 3:15pm | Tea |
| 3:00pm | CAL Library Tours |
| t.b.a. | Berkeley School Library Tours |
| 3:15 – 4:00pm | General Meeting (AGM) |
| 4:15 – 5:00pm | Special Interest Groups (SIGs) |
| 6:00 – 8:00pm | Dinner with Auction |

## THURSDAY, AUGUST 7

| | |
|---|---|
| 7:00am | Breakfast |
| 8:30 – 9:30am | Regional Meetings |
| 9:30 – 11:00am | Posters, Roundtables, Archives, and Coffee |
| 11:00 – 11:45am | Session N |
| 12:00 – 12:45pm | Session O |
| 1:00 – 2:30pm | Closing Lunch: Speaker Faith Chao |
| 2:30pm | University library tours |
| 3:30 – 7:00pm | Executive Committee/ Board Meeting |

# Conference Theme:
## World Class Learning and Literacy Through School Libraries

**Subthemes are listed at the bottom of each presentation abstract. This year's subthemes are as follows:**

**Digital Literacy-** These sessions may focus on digital libraries, digital resources related to reading, and/or specialized strategies and techniques for "reading" online text, images, and multimedia.

**Building a Community of Readers** – These sessions may relate to book clubs, literature circles, enthusiasm for reading, and/or collaborative reading projects.

**Building Literacy Skills in School Libraries** – Sessions in this category may answer any of the following questions: How can the school librarian use his or her library curriculum and instruction to develop reading and literacy skills in students? What reading and literacy skills can be "taught" in school libraries by school librarians? What are best practices for teaching these skills?

**Supporting Reading Instruction** – Sessions with this subtheme may explore how school libraries can provide resources for classroom teachers as well as staff support for literacy initiatives throughout the school, including collection development, literacy libraries, reader's advisory, reading incentive programs, and more.

**Research Forum** – These papers reflect a scholarly viewpoint on and research in school librarianship. These papers comprise the 12th International Forum on Research in School Librarianship.

**Special Event** – These are events that may not relate specifically to this year's conference theme but which are relevant and meaningful to the profession and its practice.

# Friday, Aug. 1

## 6:00pm Dinner

*All meals are served at the Clark Kerr Dining Room*

# Saturday, Aug. 2

## 7:00am Breakfast

## 9:30 Departure for Winery and School Tour

Please meet at the Front Desk (Building 1).
*This sold-out tour required advanced registration and an additional fee.*

## 9:00am – 12:00pm IASL Executive/Board Meetings, Executive Dining Room

## 12:00 – 1:00pm Lunch

## 1:00 – 5:00pm Continuing IASL Executive/Board Meetings

## 6:00pm Dinner

# Sunday, Aug. 3

## 7:00am Breakfast

## 9:00am – 12:00pm Preconferences
*Preconferences require an additional fee of $50 per session.*

**Acceptable Use Policies: Is Yours Ready for Web 2.0?**
**Carrie Gardner (USA)**
**Room 104**
*Internet access is almost a necessity in the education of our students. Yet there is no standard for acceptable use policies, also known as Internet use policies or computer behavior policies. Many schools drafted these policies during the Internet's "1.0" era, a time before Blackberries, cell phones, and Web 2.0 tools. This workshop will look at commonly found components in policies and their impact on student access to online information, as well as the directions in which schools have taken -- if any -- to educate students and parents about the benefits and concerns of internet use. Participants are welcome to bring examples of internet access policies for students, and sample policies will be provided. Interactive time will allow us to examine and discuss real life issues faced by school librarians who offer internet access.*

**Can Teacher Librarians Really Compete with Google? Yes! Here's Why and How**
**Doug Achterman (USA) and David Loertscher (USA)**
**Room 102**
*Learn (and practice) how you can help teachers compete with Google. We won't divulge the content, but you will be delighted with the applications you learn here. Bring your own laptop or share one of ours for this hands-on exploration.*

**Booktalking with Students**
**Rosemary Chance (USA) and Teri Lesesne (USA)**
**Room 204**
*Children and young adults are eager to read. When they enter a school library, they may be intimidated by the thousands of books. How can they possibly choose the books that meet their needs for information and entertainment? Only the most avid and sophisticated readers know exactly which authors, genres, and titles they want to read. For everyone else (and even for those eager readers), regular advertisements for great books can help them choose just the right book for their individual needs. The best sort of advertising is booktalking! An enthusiastic booktalk by the librarian can increase circulation, establish rapport between students and librarian, and help satisfy the reading needs of students. In the first stage of the session, the presenters will demonstrate types of booktalks for both elementary and secondary students. In the second stage participants will divide into small groups and practice brief booktalks. In the third stage participants will each deliver a brief booktalk that will be critiqued in a light-hearted manner by Chance, Lesesne, and other participants.*

## 12:00- 1:00pm Lunch

## 1:00 – 4:00pm Preconferences
*Preconferences require an additional fee of $50 per session.*

**Seeding the Oyster: Leadership Through Dialogue**
**Marilyn Kimura (USA) and Debbie Abilock (USA)**
**Room 104**
"SCHOOL IS ABOUT PRACTICING TO WRAP ONE'S MIND AROUND REAL AND COMPLEX IDEAS, THOSE OF FUNDAMENTAL CONSEQUENCE FOR ONESELF AND FOR THE CULTURE."
     --- THEODORE SIZER
*You'll recognize the names of these discussion groups: Socratic seminar, Literary Club, Harkness Table, deliberative dialogue, professional study group. Yet few librarians have used them as advocacy tools to build learning communities in support of literacy and collaboration. We will provide an opportunity for you to experience several types of inquiry discussions using provocative texts, photographs and film clips. As you learn discussion, reflection, and facilitation skills, you will see how nurturing inquiry and intellectual dispositions can seed your leadership in the school community.*

**Beyond "Bird Units": Models for Deeper Research Projects in School Libraries**
**David Loertscher (USA)**
**Room 204**
*Tired of research projects where student inquiry is limited to finding simple factual answers to questions, like, "How many eggs does this bird lay?" or, "What color are this bird's feathers?" We call these low-level thinking projects "Bird Units." In this workshop, we will look at a variety of strategies for co-designing research projects that call on students to select the best information and synthesize it in a meaningful way.*

**Using Podcasting to Give Voice to Students in School Libraries**
**Kristin Fontichiaro (USA)**
*Looking for a way to motivate students and give them an authentic audience? Consider podcasting, the Web 2.0 tool that brings audio recordings to the Web with free or inexpensive tools. After talking about a variety of podcasting tools and learning the basic how-tos of podcasting, we'll turn our attention to the many types of podcasts that can be integrated into school library learning. Audio tours, book talks, dictation for special needs students, radio broadcasts, commercials, radio plays, and more can help students synthesize their learning in meaningful, creative ways. This is a hands-on workshop in a computer lab, though participants are welcome to bring their own laptop computers or cell phones.*

# Sunday, August 3,
## *continued*

## 6:00 – 7:00pm Dinner

## 7:00 – 8:00pm Welcome Reception and Awards Ceremony

**Patio of Main Dining Room (Outdoors)**

*Join us for conversation and our salute to this year's IASL award winners:*

JEAN LOWRIE LEADERSHIP DEVELOPMENT AWARD:

> *Eunice McKenzie (Jamaica)*

KEN HAYCOCK LEADERSHIP DEVELOPMENT AWARD:

> *Jerry Mathema (Zimbabwe)*

MUROFUSHI RESEARCH AWARD:

> *Dr. Marcia A. Mardis (USA)*

IASL/SOFTLINK INTERNATIONAL EXCELLENCE AWARD:

> *Madhu Bhargava (India)*

LINKSPLUS COMMENDATION AWARD:

> *ASLA Online Virtual Conferences –*
> *Australian School Library Association (Australia)*

IASL SCHOOL LIBRARY TECHNOLOGY INNOVATION AWARD:

> *IBrary –*
> *Ray Doiron, University of Prince Edward Island and Marlene Asselin, University of British Columbia (Canada)*

BOOKS FOR CHILDREN PROGRAM:

> *Kenya School Library Association (Lessos, Kenya)*
> *St Josephs Primary School (Swaziland)*
> *Tipu Model School & College (Kabal Swat, Pakistan*

# Monday, Aug. 4

## 7:00am Breakfast

## 8:30 - 10:00am
## Opening Session and Plenary in Theatre

**Chair: Blanche Woolls (USA)**

**GREETINGS**
**Barbara Jeffus, California Department of Education (USA)**
**Susan Hildreth, State Librarian of California (USA)**

**KEYNOTE**
**Do Libraries Matter?**
**Stephen Krashen, Professor Emeritus, University of Southern California (USA)**
**Theatre**
*McQuillan (The Literacy Crisis: False Claims and Real Solutions, 1998) reported that an "access to books" factor (school libraries, public libraries, books in the home) was a strong predictor of performance on the 1992 fourth grade NAEP reading examination, even when poverty was controlled. The two predictors accounted for 72% of the variance in scores: Knowing the level of poverty and access to books is 72% of the information needed to predict the NAEP score. Is this true in other countries? My colleagues (Sy-ying Lee and Jeff McQuillan) and I examined the impact of access to books (school libraries, classroom libraries) on scores on the PIRLS (Progress in International Reading Literacy Study), a reading test given to fourth graders in 40 countries. Factor analysis revealed four factors: SES home (SES and home resources, including books), Literacy (free reading of fiction, sustained silent reading, parental reading, parental education), Libraries, and Instructional Factors. Multiple regression analysis revealed that the Library factor was the strongest predictor when SES was controlled. The literacy (free reading) factor was positively related to reading scores but did not reach statistical significance. The combination of SES home and Library accounted for 61% of the variance, similar to results reported by McQuillan ten years ago for the US alone. Libraries definitely matter and they matter a lot.*

## 10:00am – 4:00pm Exhibits Open

## 10:00 - 10:30am Coffee in Garden Room

## 10:00am – 12:00pm Poster Presenters Set up in Garden Room
*Meet Jean Jay to pick up supplies*

## 10:30 - 11:15am Session A
**PANEL DISCUSSION**
(double-session until 12:45pm)
**Understanding School Library Education in the International Context:**
**Developing Further Education Programs to Support World Class Learning and Literacy**
**Panel Chair: Jennifer L. Branch (Canada), with invited guests from around the world**
**Host: Rick Mulholland (Canada)**
**Theatre**
*This panel session will provide participants with an opportunity to hear about and discuss the latest developments, trends, issues in the area of school library education. Panel participants who are leaders in school library education from around the world have been asked to share ideas, possibilities and opportunities as well as current challenges and roadblocks to preparing school librarians/teacher-librarians. This panel presentation and discussion is sponsored by the IASL School Library Education Special Interest Group.*
**KEYWORDS:** SCHOOL LIBRARY EDUCATION, TRENDS AND ISSUES, INTERNATIONAL CONTEXT
**TRACK:** SPECIAL EVENT

**PAPER**
**SearchingCommunicatingLearning, SMiLE and Many SMiLE: Strategies for building literacy skills in school libraries – three school library projects**
**Bibi Eriksson, Maria Gunnarsson Contassot, Helle Barrett (Sweden)**
**Host: Carrie Gardner (USA)**
**Rm. 204**
*SearchingCommunicatingLearning, SMiLE, and Many SMiLE are three school library projects funded by The National Authority for School Improvement, with the aim that, through increased knowledge and pedagogical discussions, the school library will be a more active part of the school. The projects will strengthen the cooperation between teachers and librarians, increase the competence in the field of information literacy, and support the principals in their responsibility for school development. All are similarly designed and last for 18 months. Teams of teachers, headmasters and librarians from selected schools in the region meet at the universities driving the projects once a term for lectures and seminar and can take part of research in the school library field. There the teams also meet their mentors, who also visit the teams in their school and are in contact with them through net-based facilities during the projects.*
**KEYWORDS:** SCHOOL LIBRARY, SCHOOL DEVELOPMENT, INFORMATION LITERACY, GOAL ACHIEVEMENT
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

# Monday, Session A, continued

**PAPER**
**Information Needs and Information-Seeking Behavior of Gifted Sixth Graders**
**Shiao-Feng Ada Su and Chiung-Shu Chang (Taiwan)**
**Host: James Herring (Australia)**
**Room 104**
*This study investigates the perceptions of information needs and information seeking behavior of gifted sixth graders, their parents, and the regular sixth graders, and most interestingly their differences. School teachers were interviewed to examine their attitudes towards school library support for gifted education. As hypothesized, there exist significant differences in information needs and seeking behavior between the gifted and regular sixth graders, including the use of school libraries and other libraries. The results show that gifted sixth graders have a stronger demand for cognitive information. Parents are less aware of the perceived affective information need of and are less consulted by the gifted sixth graders. Teachers demand more library supports by common assent.*
**KEYWORDS:** ACADEMICALLY GIFTED STUDENTS, INFORMATION NEEDS, INFORMATION SEEKING BEHAVIOR, SCHOOL LIBRARIES
**TRACK:** RESEARCH FORUM

**PAPER**
**NEXUS: A School Based Approach to creating a Centre for Advancing Learning Excellence**
**Suzanne Downes, Tania Maley, and Stephen Liseo (Australia)**
**Host: Jessica Lee (USA)**
**Room D1 (adjoining building)**
*The restructuring of the Library at The Hills Grammar School in 2007 has provided a broader concept that links and connects the whole school community (students, teachers and parents) through research, knowledge and learning involving a wide range of collaborative practices and information communication technologies. A deliberate renaming of both the Library to NEXUS and the title of the Teacher Librarian 7-12 to Faculty Liaison Teacher Librarian was necessary to intentionally shift the mindset of staff away from the traditional Library paradigm to reflect the collaborative nature of the newly established centre and to provide the catalyst for change.*
**KEYWORDS:** ICT INTEGRATION, COLLABORATIVE PRACTICES, LEARNER-CENTRIC TEACHING
**TRACK:** RESEARCH FORUM

**PAPER**
**Storytelling and Sustained Silent Reading in Foreign Language Acquisition: Evidence from Taiwan**
**Sy-ying Lee (Taiwan)**
**Host: Becca Todd (USA)**
**Executive Dining Room (EDR)**
*English education in Taiwan has been an issue for many years and the search for the core of the problem is still ongoing. What has been missing in our English education? This paper attempts to deal with several interrelated issues which are believed to be of vital importance when discussing the problem of our English education and when trying to determine ways of improving it: (1) storytelling as an indispensable first step; (2) storytelling as the bridge to independent reading; (3) extensive reading as the most enjoyable and effective means for continuing language acquisition, (4) extensive reading in the form of in-class sustained silent reading as the most important factor for developing one's academic language as well as writing ability. Finally, (5) I intend to hypothesize, with the support of research and theory, that there is a developmental path for foreign language acquisition which corresponds very well with first language development.*
**KEYWORDS:** STORYTELLING, EXTENSIVE READING (ER), DEVELOPMENTAL PATH
**TRACK:** BUILDING LITERACY SKILLS

**WORKSHOP** (double session until 12:45pm)
**Maximizing Your Impact:**
**Coteaching Reading Comprehension Strategies**
**Judi Moreillon and Keisa Williams (USA)**
**Host: Kristin Fontichiaro (USA)**
**Room 203**
*Hands-on, interactive, and usable on Monday morning! After an overview of seven reading comprehension strategies, research-based instructional strategies, and a hands-on activity to connect reading comprehension and information literacy skills, the presenters will model a cotaught background knowledge reading comprehension/information literacy strategy lesson. They will share still images and testimonials of K-6 teacher-librarians and classroom teachers who implemented cotaught lessons and the resulting student work. Participants will experience one set of lessons at three levels of literacy development, emerging (K-1), advancing (2-3), and advanced (4-6) from Moreillon's book, Collaborative Strategies for Teaching Reading Comprehension: Maximizing Your Impact (ALA Editions, 2007).*
**KEYWORDS:** COTEACHING, READING COMPREHENSION, INFORMATION LITERACY SKILLS
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**WORKSHOP** (double session until 12:45pm)
**Video Streaming for School Libraries**
**David DiGregorio (United States)**
**Host: Tom Kaun (USA)**
**Room 102**
*The broadcast and communication functions of a school library help to create a learning community both inside the school and throughout the community. Free or low-cost Web-based streaming shares activities with parents and the community. Students become content creators and practice presentation skills in an authentic, real-world context. In this session, gain hands-on experience with the set up of a streaming video server making its contents available to viewers within the school and around the world; the basics of encoding video and how to upload to a publishing point; embedding and linking video into web pages; and monitoring usage and who might be watching. After the session, participants can borrow equipment to conference moments for uploading and future viewing.*
**KEYWORDS:** VIDEO STREAMING, SCHOOL COMMUNICATION, INTERNET BROADCASTING
**TRACK:** SPECIAL EVENT

# Monday, 11:15 - 11:30am Break

# 11:30 - 12:15 pm Session B

**PANEL DISCUSSION**
**Understanding School Library Education**
**in the International Context**
**Theatre**
*Continues from previous session*

**WORKSHOP**
**Video Streaming**
**Room 103**
*Continues from previous session*

**WORKSHOP**
**Maximizing Your Impact:**
**Coteaching Reading Comprehension Strategies**
**Room 203**
*Continues from previous session*

**PAPER**
**School librarians' anticipated support for students with Special Education Needs (SEN): Using a Modified Grounded Theory Approach**
**Hiroyo Matsudo (Japan)**
**Host: Carrie Gardner (USA)**
**Room 104**
*The purpose of this study is examining some suggestions on how school libraries can be involved in Special Education Needs in a helpful way. The Modified Grounded Theory Approach is used as the method for this study.  In my analysis I focus on the change in perception of 19 school staff members with respect to changes in the school library function and factors for these changes.  Based on the result the school librarian's anticipated four supports are suggested as follows:  providing suitable materials that take into account students' situation, searching study by team teaching, supporting students' self-affirmation by sympathetic understanding, and educational support encouraging students' socialization.*
**KEYWORDS:** SPECIAL EDUCATION,  SCHOOL LIBRARIAN'S SUPPORT, MODIFIED GROUNDED THEORY APPROACH
**TRACK:** RESEARCH FORUM

**PAPER**
**The ELALC-SEK Project: Developing English language library classrooms to support literacy learning in the early childhood and primary English language programs at a multilingual Spanish school**
**Cindy Houston (USA)**
**Host: Rebecca Hunt (USA)**
**Room 204**
*Two consultants from Western Kentucky University developed a*

*proposal for and then assisted with the implementation of English Language Arts Library Classrooms in a private Spanish school near Barcelona, Spain. The intent of the project was to enhance the English instruction in the primary grades program at the school. The project involved field observations and a literature review of school libraries in Spain, proposal development, technical assistance, and training in library organization, administration and collection development.*
**KEYWORDS:** LITERACY AND LANGUAGE ACQUISITION, SCHOOL LIBRARIES, ENGLISH AS A FOREIGN LANGUAGE INSTRUCTION
**TRACK:** DIGITAL LITERACY

**PAPER**
**Elementary School Students' Perceptions of school library and expectations of Library Space**
**Lin-Jen Huang (Taiwan)**
**Jiann-cheng Shieh (Taiwan)**
**Host: Jean Jay (USA)**
**Executive Dining Room**
*This study main research purposes were to explore elementary school students' perception of school library, understanding elementary school students' experience of school library use and explore elementary school students' ideal library. Data for this study have been collected chiefly through semi-structured interviews and analysis of drawings. This study was targeted at mid-grade and high-grade students of elementary school. It is expected that understand the students' perception of library and provide a suggestion for improving library space.*
**KEYWORDS:** ELEMENTARY SCHOOL STUDENT, PERCEPTION OF LIBRARY, LIBRARY DESIGN
**TRACK:** RESEARCH FORUM

**PAPER**
**Ruling Relations and the School Librarian:**
**An Institutional Ethnography**
**Jennifer Crispin (USA)**
**Host: Edward Lomax (USA)**
**D1 (adjoining building)**
*The work of a school librarian is shaped by relations seen and unseen.  Problematizing the effects of these relations on the institutions of education, librarianship, and school librarianship can lead to a greater understanding of the work of the librarian. I will use institutional ethnography methods to investigate relations of education, librarianship, and school librarianship Institutional ethnography has been used to investigate the coordination of activities in other human services, but institutional ethnography has not yet been applied intensively in educational settings (Smith, 2005).  Institutional ethnography can be used as a method of inquiry into the work of people in educational settings.*
**KEYWORDS:** INSTITUTIONAL ETHNOGRAPHY, RULING RELATIONS, SOCIOLOGY
**TRACK:** RESEARCH FORUM

## Monday,
## 12:30 - 1:00pm Storytelling Break

**Dianne de las Casas (USA)**
**Host: Kristin Fontichiaro (USA)**
**Theatre**
*After a busy morning of sessions, relax and enjoy stories told by award-winning Louisiana (USA) storyteller Dianne de Las Casas. Her performances, dubbed "traditional folklore gone fun" and "revved-up storytelling" are full of energetic audience participation.  Her multi-award winning CDs include Jambalaya ~ Stories with Louisiana Flavor, World Fiesta ~ Celebrations in Story and Song, and Jump, Jiggle & Jam ~ A Rhythmic Romp Through Story Land. Dianne's books include Story Fest: Crafting Story Theater Scripts; Kamishibai Story Theater: The Art of Picture Telling; Handmade Tales: Stories to Make and Take; and Tangram Tales: Story Theater Using the Ancient Chinese Puzzle.*

## 1:00 - 2:00pm Lunch

## 2:00 - 2:45pm Session C

**PANEL DISCUSSION**
**Beyond the Book: Audiobooks & Digital Literacy**
**Mary Burkey (USA)**
**Francisca Goldsmith (Canada)**
**Host: Jessica Lee (USA)**
**Room 104**
*Explore the benefits of audiobooks as tools for improving students' reading, listening, comprehension, and vocabulary skills. Participants will gain knowledge of the positive effects of integrating audiobooks into the School Library Media program, especially for English Language Learners. Handouts include research to support the use of audiobooks for students of all abilities with over 40 audiobook titles that address academic standards for grades K-12. Discussion includes emerging formats, circulation & marketing options, and selection tools. Participants will receive materials donated by audiobook producers.*
**KEYWORDS:** LITERACY SKILLS, MEDIA LITERACY, AUDIOBOOKS
**TRACK:** DIGITAL LITERACY

**PAPER**
**The important role of information literacy and learning in the development of lifelong learners: How well prepared are our teachers and students?**
**Liz Probert (New Zealand)**
**Host: Terry Lai (USA)**
**Theatre**
*There have recently been increasing numbers of published articles lamenting school students' lack of information literacy skills. All strongly state the urgent need for improvement. The problem may arise from classroom teachers' lack of knowledge of information literacy skills and their related pedagogical practice but there is little research. This presentation reports on a project, involving a cluster of New Zealand schools, which*

*investigated both teacher's and students' understanding of information literacy and classroom practices. The results have established the need for better teacher understanding and practice. One solution will be to trial appropriate professional development.*
**KEYWORDS:** INFORMATION LITERACY,  LIFELONG LEARNING, IMPROVING CLASSROOM PRACTICE
**TRACK:** RESEARCH FORUM

**PAPER**
**Focus on Global Education: Mixed Methods Approach to Understanding Macro and Micro Levels of Effective School Libraries from an Information Science Perspective**
**Mirah Dow (USA)**
**Host: Ann Carlson Weeks (USA)**
**D1 (adjoining building)**
*The present article describes a longitudinal, mixed methods, case study of Kansas, USA, school libraries.  The overall aim in the study is to explore from an information science perspective the school librarian's involvement in information literacy instruction, student learning and achievement and meaningful educational partnerships.  Sources and types of evidence from this five-year investigation are made available on a website with the intent of contributing to a strong community of evidence-based practice.*
**KEYWORDS:** ICT LITERACY, EVIDENCE-BASED PRACTICE
**TRACK:** RESEARCH FORUM

**PAPER**
**Morning Reading for The Whole School**
**Karin Gaarsted (Denmark)**
**Host: Rebecca Hunt (USA)**
**Executive Dining Room (EDR)**
*When students enter the classroom at 8 am. they begin their day with half an hour of silence. Silence in the good, intense way, which signals immersion, practice and contentment. 30 minutes of reading every morning at the start of the school day has meant a great improvement of the reading development amongst Danish students. The outcome is competent and fast readers. Furthermore, the children and young adults maintain their joy of reading and the problem with book droppers is countered. Morning reading is a help to all students: the talented, the weak and the immigrants.*
**KEYWORDS:** READING, READING IMPROVEMENT, TEST RESULTS
**TRACK:** BUILDING A COMMUNITY OF READERS

**PAPER**
**Introduction to Information Literacy:**
**An Online Library Media Course for Students**
**Margaret Lincoln (USA)**
**Host: David diGregorio (USA)**
**Room 102**
*During the academic year 2007-2008, a hybrid online course was piloted at the high school where I serve as library media specialist. The curricular focus was information literacy. Students included 11th and 12th graders who also gained library media center work experience. Blackboard Learning Management System was used for instruction. This paper will explain how the*

**~ Session C continues on next page ~**

## Monday, Session C, continued

course was created in response to state education requirements. A complete description will be provided of course design and components. Follow-up efforts to disseminate teaching and learning results will be shared.

**KEYWORDS:** DISTANCE LEARNING, MULTIPLE LITERACIES
**TRACK:** DIGITAL LITERACY

**PAPER**
**Who are Millennials? And what they want from libraries, bookstores, and librarians?**
**Jami Jones (USA)**
**Host: Tom Kaun (USA)**
**Room 203**
*Understanding a generation's "peer personality" provides librarians a unique opportunity to develop services and programs tailored to the needs and unique attributes of a group of individuals. Master of Library Science students enrolled in a graduate research class at East Carolina University in Greenville, North Carolina, surveyed 245 18-to 24-year old members of the Millennial generation at various locations throughout the state to ascertain their use and perception of libraries and bookstores. Most important to Millennials are helpful library staff, good collections, and convenient hours. Least important are bargain items for sale, coffee, and the library or bookstore as a place to be with others.*

**KEYWORDS:** MILLENNIALS, GENERATIONAL APPROACH, BOOKSTORE, LIBRARY PERCEPTION
**TRACK:** RESEARCH FORUM

## 2:45-3:15 Tea in Garden Room

**PANEL DISCUSSION**
**The Publishing Process** (double session until 5:00pm)
**Chair: Dianne Oberg,** *School Libraries Worldwide* **(Canada)**
**Debbie Abilock,** *Knowledge Quest* **(USA)**
**Sharon Coatney, Libraries Unlimited (USA)**
**Brian Kenney,** *School Library Journal* **(USA)**
**Susan La Marca,** *Synergy* **(Australia)**
**Deborah Levitov,** *School Library Media Activities Monthly* **(USA)**
**David Loertscher, Hi-Willow and** *TeacherLibrarian* **(USA)**
**Theatre**
*Publishing is an essential component of the academic life and a rewarding outlet for practitioners. Gain a variety of editorial perspectives on the publishing process and learn strategies for getting published.*

**KEYWORDS:** PUBLISHING, WRITING, JOURNALS
**TRACK:** SPECIAL EVENT

**WORKSHOP**
**A New Curriculum for Students of the Future**
**Rose Dotten (Canada)**
**Host: Marilyn Kiefer (USA)**
**Room 204**
*In preparing our students for the future in this knowledge and information based society, they must become competent, efficient and knowledgeable users and consumers of information. It is important that our students throughout their time spent at school develop information literacy skills that are integrated info the curriculum and will provide them with lifelong skills leading to knowledge development. Providing students with a continuum of information handling skills is the focus of this session. After examining a variety of information research and inquiry models, this presentation revolves around a new model that can be adopted for all schools and integrated into all school curricula. Participants will learn how they can create a model for their own students and school community. They will also learn how to design information literacy embedded lessons and how to engage teachers in the process. This interactive session will feature a framework of the new model and templates and strategies for design of lessons for teachers and research strategies for students.*

**KEYWORDS:** INFORMATION LITERACY CONTINUUM, NEW APPROACHES, BUILDING THE CONCEPT - SCHOOL LIBRARIES, TEACHER LIBRARIANS, LIFELONG LEARNING
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**PAPER**
**Researchers' Workshop:**
**A New Approach for Literacy Learning in School Libraries**
**Barbara McNeil (Canada)**
**Host: Edward Lomax (USA)**
*This paper presents a model of literacy learning and research in school libraries that is inclusive and responsive to the needs of diverse learners. It draws on four educational theoretical frameworks: sociocultural theory, the pedagogy of care, readers' workshop, and critical pedagogy. This practical model consists of four important phases. They include social interaction, the building and maintenance of caring relationships with students, guided assistance, and students' right to return for assistance. The paper will discuss the practical applications of the model and how it contributed to higher levels of literacy achievement for a variety of students.*

**KEYWORDS:** SCHOOL LIBRARIES, CRITICAL LITERACY, RESEARCH APPROACH
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**WORKSHOP**
**School Library Learning 2.0: An online learning program for CSLA members and friends**
**Liz Dodds (USA)**
**Host: Terry Lai (USA)**
**Room 102**
*A professional development model developed by the California School Library Association 2.0 Team. Encounter the tools of the new Internet: Web 2.0! These tools are bringing our kids in touch*

**~ Session D continues on the next page ~**

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# Monday, Session D, continued

with the world through social networking, video, audio, andgaming sites. There are 23 Things for you to do. Each Thing will show you one more web tool. There are many places for you to explore, experiment with, and think about creative ways to use this in your library or to collaborate with classroom teachers. Each "week" begins with an explanation of a new web 2.0 topic, followed by Discovery Exercises.

**KEYWORDS:** DISTANCE LEARNING, WEB 2.0, COLLABORATION
**TRACK:** DIGITAL LITERACY

**PAPER**
**The Relationships among Students' Satisfaction of Library, Familial Reading Environment, and Reading Attitudes in Structural Equation Modeling Analysis**
**Li-Yun Chang, Chao-Chi Yeh (Taiwan)**
**Host: Blanche Woolls (USA)**
**Room 104**
The main purpose of this study was to test the fit of model of the relationships among students' satisfaction with the library, familial reading environments and whose reading attitudes. Further, it tried to find out whether the familial reading environments and satisfaction with the library affect the students' reading attitudes, and then explored the direct, indirect and total effects between the students' satisfaction with the library, familial reading environments, and reading attitudes. The participants of this study included 714 high school students (356 male, 358 female), and the findings suggested that (1) the theoretical model of students' satisfactions with the library, familial reading environments, and reading attitudes using Structural Equation Modeling was supported;(2) students' satisfactions with the library were in connection with their familial reading environments; (3) students' satisfactions of library and familial reading environments had a significantly positive effect on students' reading attitudes.

**KEYWORDS:** READING ATTITUDE, FAMILIAL READING ENVIRONMENT, SATISFACTION WITH THE LIBRARY, STRUCTURAL EQUATION MODELING
**TRACK:** RESEARCH FORUM

**WORKSHOP**
**Creating Reading Role Models for Teens**
**Leonie Paatsch (Australia)**
**Host: Dona Hartwich (Australia)**
**Room 203**
We all recognize the need for our youth to have positive role models in their lives, yet how many see adults reading for pleasure? Can we create reading role models within a group of people who already have enough to do? This workshop explores strategies for working with staff to not only promote reading as a social pastime, but to demonstrate how this can have a positive flow on effect to their students, regardless of what subject they teach. This session aims to be a model for running an enjoyable and fun workshop with staff.

**KEYWORDS:** READING, LITERACY, ADVOCACY
**TRACK:** BUILDING A COMMUNITY OF READERS

**PAPER**
**A grounded analysis of year 8**
**James Herring (Australia)**
**Host: Carrie Gardner (USA)**
*Room D1 (adjoining building)*
This research, undertaken in a UK high school, focuses on the views of year 8 students who were asked to reflect on their use of information literacy skills when completing an English assignment. A grounded analysis approach was taken in analysing the diaries which students completed during their assignment. Findings reveal a number of categories which illustrate the students' views of and use of information literacy skills.

**KEYWORDS:** INFORMATION LITERACY, GROUNDED ANALYSIS, STUDENT DIARY
**TRACK:** RESEARCH FORUM

# 4:00 - 4:15 Break

# 4:15-5:00 Session E

**PANEL DISCUSSION**
**The Publishing Process**
**Theatre**
*Continues from previous session*

**PAPER**
**Using Website Stickiness Strategy to Stick Online Readers: Web-Based RPG Reading**
**Chi-Lung Lee (Taiwan)**
**Hsi-Peng Lu (Taiwan)**
**Judy Chuan-Chuan Lin (Taiwan)**
**Host: Terry Lai (USA)**
**Room 102**
In this study, we would like the readers to conduct online-reading using the method of role-playing. We chose the Journey to the West, one of China's four greatest classic literatures, as the material in this experiment. The readers will take on the role of the main hero of the book, Sun-wu-kong, while reading, experiencing, and exploring the story. We wish to discuss topics relevant to website stickiness and characteristics of online game and in turn to understand the acceptance of Web-based RPG Reading style.

**KEYWORDS:** ONLINE READING, ONLINE ROLE PLAY GAME, STICKINESS
**TRACK:** DIGITAL LITERACY

## Monday, Session E, continued

**PAPER**
**Toward a Pedagogy for Using the Internet to Learn:**
**An Examination of Adolescent Internet Literacies and**
**Teachers', Parents' and Students' Recommendations for**
**Educational Change**
**Marlene Asselin, Maryam Moayeri (Canada)**
**Host: Ann Carlson Weeks (USA)**
**Room 104**
*This study observed adolescents' Internet practices as they did homework and explored student, parent and teacher views on Internet use for learning the academic disciplines. Findings revealed that instruction of the new literacies of the Internet should address strategic information searching and critical evaluation of online information. Factors of Internet use in schools are teachers' knowledge of technology, access issues, educational policy, and adult attitudes. Implications include prioritizing instruction of aspects of Internet literacy, implementing district and school initiatives targeted to enabling effective use of the Internet for learning, and transforming pedagogical frameworks of learning from fact finding tasks to inquiry processes.*
**KEYWORDS:** INTERNET LITERACY, INFORMATION LITERACY, NEW LITERACIES
**TRACK:** RESEARCH FORUM

**PAPER**
**The Reading Mandala: A Scalable Model for Developing**
**Reading Habits in Children in Rural China**
**James Henri (Australia)**
**Peter Warning (Hong Kong)**
**Leung Yuet Ha Angel (Hong Kong)**
**Host: Eric Meyers (USA)**
**Room 203**
*This study proposes and reports on a framework for encouraging adoption of the reading habit among school-aged children in rural China framed within the context of donor support. It is based on observations from site visits to five Chinese provinces and draws on evidence from both developing and developed countries. The resulting framework reflects library science, pedagogical and systemic elements. Key aspects include: mutual obligations between partners, initiation and support of free voluntary reading, training for library staff, standards for libraries and the role of leadership at all levels. The early impact of implementation of the model is described.*
**KEYWORDS:** READING HABIT ADOPTION, LIBRARIES IN DEVELOPING COUNTRIES, DONOR READING PROGRAMS
**TRACK:** RESEARCH FORUM

**PAPER**
**The Independent Learning Centre:**
**Teaching our students to love again…learning that is**
**Patricia Carmichael (Australia)**
**Host: Dona Hartwich (Australia)**
**Room 204**
*The teaching and learning undertaken in the Independent Learning Centre (ILC) as an integral part of the school library, offers unlimited opportunities to students as part of the secondary curriculum that reflects the change in pedagogy of the 21st century. This has resulted in a paradigm shift to a truly student centred approach to education. The pedagogy of the ILC supports the Standards for the 21st - Century Learner as recently released by the American Association of School Librarians (2007). Of special interest from this set of standards is the fourth area concerning individual interest: how learners use skills, resources and tools to pursue personal and aesthetic growth. It is in this area of student personal interest that the success of the ILC program rests. The inter-connection with the library has improved the whole school use and understanding of the importance of Information Literacy skills which are a vital component of the ILC program. This includes both teachers and students. This paper discusses how the ILC program motivates and manages student interest and can be adapted to provide a model to teach how learners use skills, resources and tools to pursue personal and aesthetic growth.*
**KEYWORDS:** INTEREST, INDEPENDENT LEARNING, SCHOOL LIBRARY
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**WORKSHOP**
**Teacher-Librarians as Leaders in a Web 2.0 World**
**Jennifer Branch, Joanne de Groot (Canada)**
**Host: Rick Mulholland (Canada)**
**Executive Dining Room (EDR)**
*This workshop will provide a brief overview of Web 2.0 and a description and demonstration of how these collaborative tools have been used in a new course in the Teacher-Librarianship by Distance Learning program at the University of Alberta. Participants will then be encouraged to engage in a discussion with the workshop leaders about teacher-librarian training if and how Web 2.0 should be integrated into course curriculum. Examples from other university programs and ideas about how Web 2.0 is used in schools and school libraries will be welcomed. This discussion will be an opportunity for anyone interested in school library and teacher-librarian education to examine and discuss trends and issues related to Web 2.0 in school libraries.*
**KEYWORDS/KEY PHRASES:** WEB 2.0, TEACHER-LIBRARIANSHIP EDUCATION, TECHNOLOGY INTEGRATION
**TRACK:** DIGITAL LITERACY

# Monday, 5:30 - 7:00pm Dinner

**DINNER SPEAKER: MEGAN MCDONALD**
**Host: Blanche Woolls (USA)**
**Dining Room**

*Megan McDonald is the author of many beloved books for children and teens, including Is This a House for Hermit Crab, Ant and Honey Bee: What a Pair!, The Sisters' Club, the Judy Moody and Stink books and the Julie titles for American Girl. Megan has a B.A. in English from Oberlin College and a Masters in Library Science from the University of Pittsburgh. When she took her first writing class, her professor told her to go home and rip up all the poems she had ever written. He told her she was a prose writer.*

*Megan went home and looked up "prose" in the dictionary, to find out what she was! Before Megan became a writer, she worked in museums, libraries and bookstores. She has also made a living as a storyteller and a park ranger. Megan McDonald, a Pittsburgh native, now lives with her husband in Sebastopol, California.*

# 7:00 - 8:30pm Storytelling Evening

**STORYTELLING**
**Carolyn Dukes Alexander (USA)**
**Dianne de Las Casas (USA)**
**Event Coordinator: Jean Jay (USA)**
**Theatre**

*Join these professional storytellers for a relaxing evening of stories. Following their performance, the audience is invited to share favorite stories with the group. Carolyn Dukes Alexander is an active storyteller in the Bay Area, including participation in the National Black Storytellers Conference in Oakland, California, which she coordinated, and the Oakland Ensemble Theatre. In 2003, she was sponsored by The Oakland Unified School District and the World Affairs Council to study Kabuki theater and shadow puppets as well as lead storytelling performances for school and civic organizations. She presented a storytelling workshop at IASL 06 in Lisbon and performed at The Festival at the Edge Storytelling Festival in Shropshire England the same year. In addition, she has been a guest storyteller in the New York Public Schools. She earned her master's degree in library science from Columbia University. For more about Dianne de las Casas, please refer to the 12:30pm event.*

# Tuesday, Aug. 5

## 7:00am Breakfast

## 8:30 - 9:45am Plenary

**KEYNOTE: Reading Web sites –**
**Assumptions, Problems, and Potential Strategies**
**James Herring (Australia)**
**Chair: Kristin Fontichiaro (USA)**

*As students use more online sources in schools, there needs to be more attention paid to the extent to which students can "read"websites effectively. School librarians and teachers across the world too often assume that students are able to use effective reading strategies when using digital resources but there appears to be little evidence of systematic approaches to teaching students how to read, as opposed to use websites. This session will include an examination of assumptions made by school librarians and teachers about how students read websites,what problems students might have in reading text, graphics, photographsand videos on websites and an outline of potential strategies to improvestudents' reading of websites. This will be a highly visual and interactive session.*

## 9:45am  – 4:00pm Exhibits Open

## 9:45 - 10:30am
## Coffee in Garden Room

## 10:30 – 11:15am Session F

**PANEL DISCUSSION (double session to 12:15pm)**
**Exploring the New AASL Standards for the 21ˢᵗ Century Learner**
**Chair: Deborah Levitov (USA)**
**Patricia Carmichael (Australia)**
**Sharon Coatney (USA)**
**Kristin Fontichiaro (USA)**
**Marcia Mardis (USA)**
**John Volkman (USA)**
**Theatre**

*After months of passionate debate, the American Association of School Librarians (AASL) released visionary new standards for student learning in school libraries in October 2007.  The panelists, representing publishing, academic, and practitioner perspectives, will discuss how the new standards were developed to maximize student cognition, self-assessment, and dispositions, as well as strategies and challenges for implementation.*

**KEYWORDS:** STANDARDS, STUDENT LEARNING, ROLE OF THE MEDIA SPECIALIST
**TRACK:** SPECIAL EVENT

**PAPER**
**Student Perception of Self as a Learner:**
**Did the Learning Quest Make a Difference?**
**Penelope Geoghegan (Australia)**
**Host: Carrie Gardner (USA)**
**Room 102**

*Does practice has an impact on student perception of themselves as learners? The 2007 evaluation of the Learning Induction Program, introduced to ease transition from primary to secondary school and establish year seven students as effective members and learners in the secondary school context, focussed on the success of the whole program. Now we need to find out if The Learning Quest, and the collaboration between teachers and Library, has made a difference to student learning outcomes, in particular student perception of self as a learner.*

**KEYWORDS:** TRANSITION, COLLABORATION, STUDENT SELF-PERCEPTION
**TRACK:** BUILDING A COMMUNITY OF READERS

**PAPER**
**Information search behavior and utilization of digital library of innovative consumers**
**Jane Lu Hsu, Livia Chia-Yen Chang (Taiwan)**
**Host: Ann Carlson Weeks (USA)**
**Room 104**

*In a study undertaken to identify innovative users of digital libraries using data collected in four universities in Taiwan, Domain Specific Innovativeness (DSI) scales were used in the study to segment respondents into various cluster of innovativeness. Innovative users searched and downloaded more materials from digital libraries than respondents in other clusters.  In general, journal/magazine articles were the most frequently used services for digital library users, while e-books were used much less often.*

**KEYWORDS:** DIGITAL LIBRARY, INNOVATIVE CONSUMERS, INFORMATION SEARCH
**TRACK:** RESEARCH FORUM

**PAPER**
**Helping Students Become Lifelong Learners**
**Dona Hartwich (Australia)**
**Host: Jessica Lee (USA)**
**Room 203**

*Helping students become lifelong learners can be a difficult task, especially when classroom teachers have so many other areas to cover in their curriculum. Many see "library skills" as an added extra rather than a valuable adjunct so, it is up to us, as teacher-librarians, to show them that we can take this valuable topic off their shoulders and put it onto ours.  The key to success is demonstrating to the school's leadership group that collaborative planning with teachers will improve both learning and teaching outcomes. This session will give you ammunition to inform your principal and staff that you are a critical partner*

**~ Session F continues on next page ~**

# Tuesday, Session F, continued

when it comes to guiding students along the path of "becoming lifelong learners".
**KEYWORDS:** TEACHER AND TEACHER-LIBRARIAN COLLABORATION, INFORMATION LITERACY SKILLS, BIG QUESTIONS
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**PAPER**
**The Net Generation: Tech-savvy or lost in virtual space?**
**Barbara Combes (Australia)**
**Host: David diGregorio (USA)**
**Executive Dining Room (EDR)**
*This paper discusses the secondary results of a much larger study on the information-seeking behaviour of the Net Generation and the need for schools and particularly teacher librarians, to become more involved in teaching students how to use the electronic environment effectively.*
**KEYWORDS:** NET GENERATION, TECH-SAVVY, GENERATION Y, DIGITAL NATIVES
**TRACK:** RESEARCH FORUM

**WORKSHOP** (double session to 12:15pm)
**Story Fest**
**Dianne de las Casas (USA)**
**Host: Celestine Bloomfield (USA)**
**D1 (adjoining building)**
*Through Dianne de Las Casas' innovative story theater scripts designed for whole classroom participation, creative movement, drama, rhythm instruments, and colorful scarves, teachers and librarians will explore storytelling and collectively create a performance masterpiece! Fast-paced , dynamic, and fun! The technique is easily implemented in the classroom or library. Story Fest: Crafting Story Theater Scripts is a title with Teacher Ideas Press (November 2005).*
**KEYWORDS:** READING COMPREHENSION, STORY THEATER, STORYTELLING
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

# 11:30 - 12:15am SESSION G

**PANEL DISCUSSION**
**Exploring the New AASL Standards for Student Learning Theatre**
*Continues from previous session*

**WORKSHOP**
**Story Fest**
**D1 (adjoining building)**
*Continues from previous session*

**WORKSHOP**
**Discussing Senior High School Library:**
**Using Education to Propel a Class Reading Club**
**Hsieh Shu-His (Taiwan)**
**Host: Kathy Hicks-Brooks (USA)**
**Room 102**
*Besides the selection of books, slides, TV, digital camera, and the Internet can also be introduced to make a reading club more effective to promote students' interests and enhance their knowledge. With the resources in the library, cross-classroom reading, and circulated book boxes, students' interests will be aroused. By reading, we learn the truth that social justice should be maintained. Reading clubs will even move beyond campus and further into our community, and thus the cooperation between schools and communities will propel our society to a place where people love reading and benefit from reading.*
**KEYWORDS:** CLASS READING CLUB, LIBRARY-USING EDUCATION, READING EXTRACURRICULAR BOOKS
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**PAPER**
**"Reading guidance as a part of Guidance": A popular philosophy of reading guidance in Japan developed by Michio Namekawa in the 1940s**
**Yuriko Nakamura (Japan)**
**Host: Rebecca Hunt (USA)**
**Room 104**
*In this study, the author examines the development of Michio Namekawa's philosophy on reading guidance, dokusho shido, which has been since the late 1940s one of the two pillars of school library philosophy in Japan. Namekawa is recognized as one of the key persons to cultivate the practice and philosophy of reading guidance in post-war Japan. To conduct the research, the author collects and examines all of Namekawa's historical documents from the pre- to early post- WWII periods, when he developed his theory of reading guidance. The author finds that Namekawa's philosophy can partially be traced back to the war period at which time a children's cultural improvement movement occurred. Then, under the occupation after the war, the CIE Education Division led Namekawa to shape his philosophy and curriculum more concretely. Around 1949, he found important components of the concept of integrating reading guidance into a students' personal life-Guidance, which Namekawa maintained throughout the post-war period.*
**KEYWORDS:** SCHOOL LIBRARY PHILOSOPHY, READING GUIDANCE, MICHIO NAMEKAWA
**TRACK:** RESEARCH FORUM

## Tuesday, Session G, continued

**PAPER**
**Creating Role Models of Reading - Through national, regional and local competitions**
**Maria Eriksen (Denmark)**
**Host: K.E. Hones (USA)**
**Room 204**

*To improve the reading abilities of students in sixth grade several pilot projects have used national, regional and local competition to prove that reading is cool. The aim is to create role models of reading instead of book droppers. This paper describes two of these projects: "The national championship of reading" and "Ready, set, answer."  "The national championship of reading" is inspired by a similar Dutch project. The aim of the competition is to make it prestigious to read and be good at reading aloud. "Ready, set, answer" is a quiz, which is build around all kinds of reading. This competition is not focused only on novels.*
**KEYWORDS:** READING, ROLE MODELS, COMPETITION
**TRACK:** BUILDING A COMMUNITY OF READERS

**PAPER**
**Promotion of Campus Reading Programs**
**Johnny Hou (Taiwan)**
**Host: Tom Kaun (USA)**
**Executive Dining Room (EDR)**

*Taiwan is one of the several Asian countries which highly value the advance to a higher education.  Students feel so heavy about study pressure that they seldom get the chance to go to the library.  But in the past ten years, our school tried hard to widen the possibility of improving learning environment and developed the model of organizing reading groups.  Until now, we are happy to hear the sound of reading in the school campus and the society.  Experienced for ten years, we might have seen our prospect or difficulty, but we do believe wherever you stepped over, it must be left the track.  It is obvious that the organization of class reading group has been developed in the campus.  The encouragement of reading is always one of the most important tasks in our school library.  But we also encounter some difficulties and limitations.  Therefore, the text tries to share our past experiences with the public; we much hope to submit a new prospect and work hard together with the same trade to build up a better ideal reading environment*
**KEYWORDS:** READING, READING GROUP, IT CONFERENCE
**TRACK:** RESEARCH FORUM

## 12:30 – 1:00 Poetry Break

**POETRY READING**
**John D. Berry (USA)**
**Host: Kristin Fontichiaro (USA)**

*The work of poet John D. Berry is influenced by his Choctaw/Cherokee/Scots-Irish/German heritage.  An Oklahoma native and traditional stomp dancer, John's poems have appeared in print, including To Topos Poetry International, Red Ink Magazine, Gatherings XIII, and The Windsor Review, and online on the Dublin Writers Workshop's "Electric Acorn" Web*

site and the online poetry journal "Autumn Leaves."  Other poems and writings may be found in the American Indian Library Association Newsletter and in such places as Library Journal and Library Juice.  Some of his poems have been translated into French and Catalan.  He is listed on the Native American Authors pages of the Internet Public Library.  When not writing poetry, John is a Full Librarian in the Ethnic Studies Library of the University of California, Berkeley, and an adjunct professor with San Jose State University's School of Library and Information Science.  He is a past Councilor at Large of the American Library Association and Past President of the American Indian Library Association.  He is a proud son, husband, father, and uncle and a graduate of California State University, Fullerton, and the University of Missouri, Columbia.*

## 1:00 - 2:00pm Lunch

## 2:00-2:45pm Session H

**PAPER**
**Building capacity and continuous improvement of school libraries: The Delaware experience**
**Ross Todd (USA)**
**Host: Marcia Mardis (USA)**
**Theatre**

*This research and development process presented here is an ongoing evidence-based practice program engaging multiple partnerships at school district and state department of education to focus on continuous improvement and capacity building of school libraries in the state of Delaware.  At its center is a process of engaging school librarians in a research-based, data-driven cycle of transforming school libraries so that they can play a central and identifiable role in curriculum implementation, student achievement, reading, and literacy development in Delaware's schools, and to ensure that Delaware's school libraries play a role in world class learning and literacy in the state.*
**KEYWORDS:** EVIDENCE BASED PRACTICE, SCHOOL LIBRARY RESEARCH, DELAWARE SCHOOL LIBRARIES
**TRACK:** RESEARCH FORUM

**PAPER**
**Promoting the Use of School Libraries: Teaching Readers to Fish Instead of Fishing for Them**
**Tzong-Yue Chen (Taiwan)**
**Host: Jane Lu Hsu (Taiwan)**
**Executive Dining Room (EDR)**

*This workshop will discuss how a Synchronous Instruction System(SIS) for a Networked Learning Community was set up in our school. We host training courses for teachers about multimedia tools and how to set up an e-learning environment that will record their pedagogy and organize their training materials for distance learning. This training is archived in DVD*

*format so teachers can check them out from the library. The procedure of this workshop is as follows: 1. to introduce Synchronous Instruction System (SIS) with Learning Management System; 2. to demonstrate the SIS environment; 3. to discuss the benefits of setting up a Networked Learning Community.*

**KEYWORDS/KEY PHRASES:** SYNCHRONOUS INSTRUCTION SYSTEM, E-LEARNING
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**PAPERS (COMBINED SESSION)**
**Online and offline reading habits of primary school students**
**Karen Kam Lin Ip, Samuel Kai Wah Chu, David Kwun Nam SIT (Hong Kong)**
**Host: Carrie Gardner (USA)**
**D1 (adjoining building)**
*Academics have long been interested in the reading habits of primary school students. Substantial works were conducted to investigate different aspects of children's reading habits. However, there remains a gap in the literature with regard to the link between children's habits of reading printed books and e-books. In light of this, this paper will focus on examining the information needs and reading habits of primary students in a digital world, and their habits of reading traditional printed materials and electronic materials. Subsequently, these two aspects will also be compared. Results revealed that boys generally read more than girls, online and offline. Students at higher grades were found less attracted to digital materials. It is hoped that this paper will foster better understanding of children's online and offline information needs and reading habits.*

**KEYWORDS:** READING, DIGITAL TEXT, GENDER DIFFERENCES
**TRACK:** RESEARCH FORUM
**and**
**Primary four students' development of reading ability through inquiry-based learning projects**
**Samuel Kai Wah Chu (Hong Kong)**
**D1 (adjoining building)**
*This paper is part of a bigger study that investigates a collaborative instructional approach involving three kinds of teachers (Information Technology, General Studies, and Chinese) and the school librarian in guiding primary 4 (P4) students through two phases of inquiry-based learning (IBL) projects, each lasting for 2-3 months between 2006-2007. This collaborative approach in guiding students through the IBL projects has proven to be effective. Not only did the participating students significantly enhance their reading abilities, but they obtained 37.47% higher grades in their General Studies projects compared with their peers in the previous year (Chu, Chow, Tse, & Kuhlthau, 2008a). This paper examines the reading tests completed by the students before and after their IBL projects, in addition to analyzing the opinions of students, teachers and parents regarding students' reading ability improvement after the Phase 1 of the IBL projects. In doing so, it may shed light on the benefits and possibilities of an integrative instructional approach in improving students' reading and language abilities.*

**KEYWORDS:** INQUIRY, COLLABORATION, STUDENT ASSESSMENT
**TRACK:** RESEARCH FORUM

**PAPER**
**Public Libraries Supporting World Class Learning and Literacy through School Libraries**
**Joanne DeGroot, Jennifer Branch (Canada)**
**Host: Rick Mulholland (Canada)**
**Room 204**
*The preliminary findings from this study show that public libraries in Alberta are taking on some of the roles and responsibilities of school libraries. They are supporting the children's research and homework assignments by purchasing curriculum-related materials and providing formal and informal training to children and their parents in the library, in schools, and online. Public libraries are providing this additional level of service without additional funds and often, with no formal training on the curriculum, information literacy, or inquiry-based learning. It appears that public library staff members would benefit from professional development opportunities in these areas so that they are able to continue providing high levels of service to children across Alberta.*

**KEYWORDS:** PUBLIC/SCHOOL LIBRARY COLLABORATION; PUBLIC LIBRARIANSHIP
**TRACK:** RESEARCH FORUM

**PAPER**
**Library Services for Students with Autism**
**Lesley Farmer (USA)**
**Host: Elizabeth Friese (USA)**
**Room 104**
*At least 1 in 166 children are born with Autistic Spectrum Disorder (ASD), but few school libraries provide resources and services explicitly targeting this population. This paper explains the characteristics and educational challenges of children with ASD; and provides ways to create an inclusive library environment that offers a rich variety of resources and services that engage these children. Tips for training library staff relative to ASD are also given.*

**KEYWORDS:** AUTISM, INCLUSION, TECHNOLOGY
**TRACK:** SUPPORTING READING INSTRUCTION

**PAPER**
**Urban Teenagers Talk about Leisure Reading**
**Sandra Hughes-Hassell (USA)**
**Host: Becca Todd (USA)**
**Executive Dining Room (EDR)**
*In urban school districts in the United States, schools are tackling low literacy levels by initiating literacy programs, many of which contain a focus on building the habit of leisure reading. While research has shown a connection between success in school and the amount of leisure reading students do, little is known about the leisure reading habits of urban teenagers. This paper reports the results of a three-part study investigating the leisure reading behaviors of urban teenagers and suggests strategies to support their literacy development.*

**KEYWORDS:** URBAN TEENAGERS, LEISURE READING, ADOLESCENT LITERACY
**TRACK:** RESEARCH FORUM

# Tuesday,

## 2:45 - 3:15pm Tea in Garden Room

## 3:15 - 4:00pm Session I

**PAPER**
**The Information Search Process of English Language Learner (ELL) Students in a Guided Inquiry Project: An In-depth Case Study of Two Korean High School Students in the United States**
**Sung Un Kim and Ross Todd (USA)**
**Host: Marcia Mardis (USA)**
**Theatre**
*The pilot study presented here provides an in-depth examination of two Korean 11th grade students in a biology class of a high school in New Jersey, U.S. During the project, data were collected through questionnaire, surveys, search journals, search sessions, observation, students' papers, and interviews. The findings of this study will facilitate the understanding on the information seeking and knowledge construction process of ELL students so that school environments, including school libraries, can provide meaningful instructional and service interventions for them.*
**KEYWORDS:** ENGLISH LANGUAGE LEARNER (ELL), INFORMATION SEARCH PROCESS (ISP), GUIDED INQUIRY
**TRACK:** RESEARCH FORUM

**PAPER**
**Facebook: A School Librarian's Tool for Building a Community of Readers**
**Paulette Stewart (Jamaica)**
**Host: Dona Hartwich (Australia)**
**Room 102**
*In this presentation, Facebook is examined as an educational tool that can be used to facilitate the development of literacy skills. The philosophical assumptions underlying the Social Development Theory by Vygotsky and the Social Learning Theory by Bandura were used to substantiate the benefits students can gain from learning in a social environment such as Facebook. Librarians can help students to develop their literacy skills, by using the Literature Circle on facebook. Assigning readers roles such as literary luminary, synthesizer, analyzer, and evaluator and rotating these roles will allow readers to develop the various literacy skills over time and to avoid monotony.*
**KEYWORDS:** FACEBOOK, SOCIAL LEARNING, LITERATURE CIRCLE
**TRACK:** RESEARCH FORUM

**PAPER**
**Information Seeking and Use by Grade 9 Students: More and Less Savvy Than You Might Think**
**Eric Meyers and Mike Eisenberg (USA)**
**Host: James Herring (Australia)**
**Room 204**
*This paper presents findings related to periodical literature are particularly interesting, as they suggest three important that and related challenges:  1) students infrequently utilize subscription databases for seeking periodical content; 2) students do not perceive periodicals as trustworthy sources; 3) students do not perceive that they have been taught how to access and use periodical literature.  The paper also includes survey results that present a number of implications for library and information services, and the survey data will be further discussed in light of the qualitative evidence gathered in other phases of the overall study.  We will describe the emerging needs of students and schools in a networked world, and how schools must adapt their pre-Web service models if they wish to remain relevant to the teaching and learning mission of the school.*
**KEYWORDS:** DATABASES, STUDENT RESEARCH SKILLS, PROGRAM ADMINISTRATION
**TRACK:** RESEARCH FORUM

**PAPER**
**Assessing Teacher and Librarian Collaboration**
**Patricia Overall (USA)**
**Host: Elizabeth Friese (USA)**
**D1 (adjoining building)**
*Collaboration among teachers and librarians is recommended in professional guidelines as an integral part of school librarianship. Collaboration is also considered a key factor in improving student academic achievement (American Association of School Librarians [AASL] and Association for Educational Communications and Technology [AECT], 1998). Although considerable anecdotal evidence of teacher and librarian collaboration exists, the kinds of collaborative endeavors undertaken by teachers and librarians are not always clearly understood. Such information is essential to further understand the relationship between teacher and librarian collaboration and improved student academic achievement. Findings from a teacher and librarian survey  developed by Montiel-Overall (2007) indicate that various types of collaborative practices are evident in teacher and librarian collaboration.  Building on information from this study an expanded evaluative measure was developed and pilot tested to further examine ways in which teachers and librarians work together, to test a proposed model of teacher and librarian collaboration (Montiel-Overall, 2005). The model identified four facets of collaboration: coordination, cooperation, integrated instruction, and integrated curriculum. This paper will  report on findings from the pilot study.*
**KEYWORDS**: COLLABORATION, PROFESSIONAL ROLE
**TRACK:** RESEARCH FORUM

**PAPER**
**The Evaluation Study of Usage and Planning of Elementary School Libraries**
**Jiann-Cherng Shieh (Taiwan)**
**Tan-Yi Wang (Taiwan)**
**Host: Tom Kaun (USA)**
**Room 203**
*The purpose of the study is to investigate the usage and space planning issues of elementary school libraries. We are going to adopt the method of Post-Occupancy Evaluation from the perspectives in Environmental Psychology. This study focuses on the analysis of interactions and impact factors between users' behaviors and spatial environments. By investigating one of the Taipei elementary school library from the users' aspects, we*

## Tuesday, Session I, continued

*endeavor to explore the perceptions and needs of library users, and determine the factors advantageous and disadvantageous to the teachers and students. Major suggestions on space planning are provided for the reference of school library managers in their current and future demand.*

**KEYWORDS:** USER NEEDS, LIBRARY DESIGN
**TRACK:** SUPPORTING READING INSTRUCTION

**PAPER**
**Electronic Media and Leisure-Time Reading:**
**Responses of School Librarians**
**Yunfei Du and Barbara Martin (USA)**
**Host: Carrie Gardner (USA)**
**Executive Dining Room (EDR)**
*One hundred two school librarians participated in an online survey. These respondents reported that playing computer games, watching TV, and surfing the Internet compete with reading. Primary school librarians mainly agreed with the impact of TV and computer games, but not with that of the Internet; at the middle school level, the perceived influence of the Internet increases, but it is still less important than computer games and TV; high school librarians agreed with the perceived effects of TV, the Internet, and computer games on leisure-time reading.*

**KEYWORDS:** LEISURE READING, ELECTRONIC MEDIA,
  SCHOOL LIBRARIANSHIP
**TRACK:** RESEARCH FORUM

**WORKSHOP**
**Hot Children's and Young Adult Titles for 2008**
**Richie Partington (USA)**
**Host: Ruth Cady (USA)**
**Room 104**
*Looking to see what's hot in American libraries for kids and young adults? Richie Partington, author of "Richie's Picks" book reviews (richiespicks.com) and a member of the 2009 Caldecott Medal Committee, has combed through hundreds of books and will share the best with you in this session.*

**KEYWORDS:** BEST BOOKS, CHILDREN'S LITERATURE,
  YOUNG ADULT LITERATURE
**TRACK:** BUILDING A COMMUNITY OF READERS

## 4:15-5:00pm
## Assembly of Associations

**Chair: Lesley Farmer (USA)**
**Theatre**
*This annual conference forum is an opportunity for official representatives of member organizations concerned with professional development, education and promotion of school librarianship, to share experiences and concerns. Participating organizations include School Library Associations and Institutional members of IASL, together with similar organizations new to IASL. Other conference delegates, particularly those trying to establish School Library Associations, are encouraged to attend the forum as observers.*

## 6:00 – 7:00pm Dinner

## 7:00 – 9:00pm Multicultural Evening

**7:00 – 8:00pm**
**COLORED INK**
**Garden Court (Outdoors)**
**Event Coordinator: K.E. Hones (USA)**
*Colored Ink is SF Bay Area based theatre company that explores contemporary issues through Hip Hop, theatre and Spoken Word. Learn more at http://coloredink.org .*

**8:00 – 9:00pm**
**THE MEDICINE WARRIORS DANCE TROUPE and the**
**ALL NATIONS SINGERS**
**Garden Court (Outdoors)**
**Coordinators: John D. Berry and Gilbert Blacksmith (USA)**
*The Medicine Warriors Dance Troupe started in Oakland in 1998 in collaboration with All Nations Singers and is sponsored by American Indian Contemporary Arts. The group hosts a weekly dance class, held at Intertribal Friendship House, which teaches dancing, singing and protocol to youth and adults. With the motto "Fun, Fitness and Friendship," the class focuses on mentoring Native youth, developing their self-confidence and teaching traditional culture. Medicine Warriors/All Nations also provide dancing, singing and drumming to a wide variety of Bay Area events, in the spirit of sharing with the larger community.*

# Wednesday, Aug. 6

## 7:00am Breakfast

## 8:30-9:45am Plenary

**Chair: Marcia Mardis**

**KEYNOTE**
**Strengthening Global Understanding**
**Through Children's Books**
**Ann Carlson Weeks (USA)**
*The International Children's Digital Library (ICDL) is a full-text library of children's books from around the world that is freely available on the Internet (www.childrenslibrary.org). Developed by an interdisciplinary, intergenerational research team at the University of Maryland, the collection currently includes contemporary and historic children's books in 45 languages from 56 countries. The interface is available in 16 languages including Thai and Farsi. This plenary session will give an overview of the project including an introduction to the new Historical Collections, the Exhibitions, and the titles available in translation.*

**KEYNOTE**
**21st Century Opportunities to Push Reading**
**David Loertscher (USA)**
*There are many ways to build a reading community of a school beyond booktalking to a single class and publishing a new books list. Dr. Loertscher will discuss the world-wide initiative to read a billion books, write a billion books and do a billion projects at* http://knowville.org *He will also discuss a number of Web 2.0 ideas for the individual school to involve everyone in discussing, making lists, and collaboratively building the reading collection of the library and the classroom.*

## 9:45 - 10:15am Coffee Break in Garden Room

## 10:15 - 11:00am Session J

**PAPER (double session until 12:00pm)**
**Using Technology to Prepare World Class Librarians to Deliver Learning and Literacy**
**Dan Fuller (USA)**
**Margaret Lincoln (USA)**
**Linda Swarlis (USA)**
Host: Marilyn Kiefer (USA)
**Theatre**
*The preparation of school librarians for schools in the United States poses challenges significantly different from other library specializations. One difficulty, finding the best method to prepare school librarians, is confounded by the shortage of qualified school librarians. Can a school librarian preparation program using distance independent technologies, effectively prepare world-class school librarians to deliver learning and literacy? The results indicate the goals of the program were met. When compared with other cohorts, the retention rate was significantly lower. The results are discussed and future directions are considered.*
**KEYWORDS:** PROFESSIONAL ROLE, DISTANCE LEARNING, PRESERVICE EDUCATION
**TRACK:** SUPPORTING READING INSTRUCTION

**PAPER**
**World Class Learning and Literacy through School Libraries: Preparing Teacher Librarians for a Web 2.0 World**
**Jennifer Branch, Joanne deGroot (Canada)**
**Host: Carrie Gardner (USA)**
**Garden Room**
*This paper presents the initial findings of a study that looked at students' experiences with and reactions to learning about Web 2.0 tools. The research questions guiding this study were: How effective is a graduate-level course in helping teachers and teacher-librarians learn about and integrate new Web 2.0 technologies? And, What are the knowledge, skills, and attributes that these teachers and teacher-librarians develop as a result of undertaking this inquiry? Participants were students enrolled in a graduate-level technology course offered through the Teacher-Librarianship by Distance Learning program at the University of Alberta. The major assignment for the course was an inquiry on Web 2.0 and students were required to write blog posts as they explored 10 new tools. The major source of data for this paper came from the first blog posts, which were analyzed and then categorized into four main themes: feelings, experiences, design of the blog, and challenges. Although this paper only reports on the initial stages of the study, early analysis of all the data indicates that this course has been a great success in helping teachers and teacher-librarians learn about and integrate new Web 2.0 technologies into their personal and professional lives.*
**KEYWORDS:** WEB 2.0, TEACHER-LIBRARIAN EDUCATION, TECHNOLOGY
**TRACK:** RESEARCH FORUM

**WORKSHOP** (double session until 12:00pm)
**The International Children's Digital Library (ICDL)**
**Sharon Coatney (United States)**
**Host: Becca Todd (USA)**
**Room 102**
*After learning about the ICDL during the morning plenary session, get an in-depth tour of the database's many features and resources and explore instructional uses. The ICDL Foundation's goal is to build a collection of books that represents outstanding historical and contemporary books from throughout the world. Ultimately, the Foundation aspires to have every culture and language represented so that every child can know and appreciate the riches of children's literature from the world community. A limited number of computers are*

# Wednesday, Session J, continues

available for hands-on exploration. Participants with wireless laptops are welcome to connect via the conference center's wireless Internet connection.

**KEYWORDS:** WEB RESOURCES, CHILDREN'S LITERATURE, INTERNATIONAL CHILDREN'S LITERATURE DATABASE
**TRACK:** DIGITAL LITERACY

**PAPER**
**Biography: Gateway to Literacy and Learning**
**Bill Lukenbill (USA)**
**Host: K.E. Hones (USA)**
**Room 203**
For youth, biography exerts an enormous influence on information about current society and how youth can live productive lives. Biography offers a means of graining knowledge, but it also is an avenue that helps youth monitor their own lives and values. Biographical resources are abundant, and this vast resource assures that biography will always play a paramount role in how youth learn about themselves and how they gain new knowledge and insights about the world. Teacher-librarians and teachers play important, collaborative roles in making good biographical materials available and helping youth learn how to use biography for learning and enjoyment.

**KEYWORDS:** COLLABORATION, PERSONAL DEVELOPMENT
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**PAPER**
**Fostering a Culture of Reading through School Libraries: Room to Read's Experience in India**
**Sunisha Ahuja (India)**
**Ami Ehrlich (USA)**
**Julie Maurin (USA)**
**Host: Jessica Lee (USA)**
**Room 204**
Since 2003, Room to Read, an international education NGO, has been working in India to help foster a culture of reading in schools through the establishment of over 1500 school libraries. This paper outlines the evolution Room to Read's Reading Room program in India as an example of how school library programs can address the reading challenges of children in developing countries. The focus of the paper is on Room to Read India's Primary Reading Enhancement Program (PREP), which will be piloted in the Reading Room program in 2008. The goal of PREP is to have a significant impact on the way reading is taught in primary schools in India. Details are provided on the approach, materials, activities, parent and community participation, government participation, and student assessments that make up the core components of the PREP design.

**KEYWORDS:** LIBRARIES, CULTURE OF READING, INDIA, ROOM TO READ
**TRACK:** BUILDING A COMMUNITY OF READERS

**PAPER**
**A Framework for Accreditation of International Baccalaureate School Libraries**
**Peter Warning (Hong Kong)**
**James Henri (Australia)**
**Carolyn Sinclair (Australia)**
**Beckie Chu (Hong Kong)**
**Chan Ching Candy Yee (Hong Kong)**
**Host: Celestine Bloomfield (USA)**
**Executive Dining Room (EDR)**
This study proposes a framework for an accreditation process for International Baccalaureate (IB) school libraries. It investigates a range of existing library benchmarks from developed countries as well as criteria for school library evaluation. A partner for this study is the International Association for School Librarianship (IASL). IASL will include the results of this study as it considers its role as an accrediting body for IBO school libraries. The areas for evaluation, and resulting accreditation, include: staffing, collections, services, facilities and equipment, and collaboration and networking.

**KEYWORDS:** SCHOOL LIBRARY BENCHMARKS, INTERNATIONAL SCHOOL LIBRARIES, LIBRARY ACCREDITATION
**TRACK:** RESEARCH FORUM

# 11:15am-12:00pm Session K

**PAPER**
**Using Technology to Prepare World Class Librarians**
**Theatre**
*Continues from previous session*

**WORKSHOP**
**The International Children's Digital Library (ICDL)**
**Room 102**
*Continues from previous session*

**PAPER**
**Star Struck: Characterizing Children's Literature Authored by Celebrities**
**Rebecca D. Hunt (USA)**
**Host: Ruth Cady (USA)**
**Garden Room**
Two theoretical frameworks are used to examine the literary quality of celebrity-authored books. The use of "traditional" literary elements identified by numerous researchers in the field of children's literature (Kiefer, 2006; Horning, 1997; Lukens, 2002 and Nodelman, 1988). The second theoretical concept is "Radical Change," developed by Dresang (1999). The theory includes three Radical Change Types. Changing Forms and Formats (Type One); Changing Perspectives (Type Two); and Changing Boundaries (Type Three). Combing these two will provide a multi-dimensional framework. The analysis should

# Wednesday, Session K, continued

answer the following questions: (1) Are these books well written? (2) What literary value do they possess? (3) Are the books appealing to a diverse population? (4) Should these books be considered for inclusion in a school's library?

**KEYWORDS:** CHILDREN'S LITERATURE, CELEBRITY AUTHORS, EVALUATION

**TRACK:** RESEARCH FORUM

**PAPER**
**Sparking a Worldwide Conversation on School Libraries 2.0**
**Marlene Asselin (Canada)**
**Roy Doiron (Canada)**
**Host: Jane Lu Hsu (Taiwan)**
**Room 104**

The guest co-editors of the School Libraries Worldwide special topic issue on New Learners, New Literacies and New Libraries provide a summary of the key goals of the issue and the worldwide conversation they hope to spark by sharing a diverse set of articles and online resources. Details are provided on developing the journal issue as an open source, online resource; the call for proposals; and the subsequent review process for the issue. The editors provide a further synthesis of key points suggested throughout the review process and the subsequent "publication" of the issue. Questions are raised about reluctance from the field to accept the notion of new learners and new literacies and a tactic claim that these issues are already being addressed in school libraries. The challenge is given for the readers/viewers of this special issue to get engaged in the conversation by responding at the SLW Blog.

**KEYWORDS:** SCHOOL LIBRARY 2.0
**TRACK:** SPECIAL EVENT

**PAPER**
**Evergreen Library Penetrating into Classroom Teaching: Applying and Expanding -- Take Tianzhu No.1 High School in Northwest China as a Sample**
**Zhou Wenjie (China)**
**Host: Blanche Woolls (USA)**
**Room 203**

This presentation reports a school library project initiated by the Evergreen Education Foundation in the northwestern region of China, using the case of project implementation at the Tianzhu No. 1 High School as an example. The project involves school librarians' training of students on library skills, library-initiated reading programs, introduction of information literacy course, and students' involvement in library operation as volunteer helpers*.*

**KEYWORDS:** INFORMATION LITERACY, PROGRAM ADMINISTRATION
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**PAPER**
**Designing Multiple Book Clubs to Meet the Interest of Diverse Populations**
**Kathy Hicks-Brooks (USA)**
**Host: K.E. Hones (USA)**
**Room 204**

Reading for recreation has been an ongoing problem for our high school, so we decided to create an after-school book club. However, in large urban high schools with diverse populations, it is difficult to meet the interest of all students with one book club. In our school there are fifty-two languages represented and students from various backgrounds, ethnicities, and academic abilities. Data was collected and analyzed, and a question emerged. If we developed book clubs around the interest of students, would recreational reading activities increase at our high school? The following paper is what we found to be the answer.

**KEYWORDS:** BOOK CLUBS, HIGH SCHOOL, DIVERSITY
**TRACK:** BUILDING A COMMUNITY OF READERS

**PAPER**
**The Status of Technology, Science and Mathematics in U.S. Middle School Media Centers: A National Survey**
**Ellen Hoffman and Marcia Mardis (USA)**
**Host: Edward Lomax (USA)**
**Executive Dining Room (EDR)**

In a national survey of U.S middle school library media specialists (SLMS) in 2005, respondents were asked about their roles in schools related to science, mathematics, and technology. Most indicated that they rarely collaborated with science or mathematics teachers and that their knowledge and professional development in these areas was limited. However, those SLMS who took an active role in the technology integration activities at their schools were more successful in the four roles defined in "Information Power": teaching, instructional partner, information specialist, and somewhat less, program administrator.

**KEYWORDS**: SCIENCE AND MATHEMATICS, MIDDLE SCHOOLS, SCHOOL TECHNOLOGY SUPPORT
**TRACK:** RESEARCH FORUM

# 12:00 - 12:15pm Break

# Wednesday

## 12:15pm - 1:00pm Session L

**PAPER**
**Reading Spaces**
**Susan LaMarca (Australia)**
**Host: Dona Hartwich (Australia)**
**Theatre**
*This paper will explore briefly what research tells us about library design and, more specifically, the design of reading spaces for the provision of pleasure reading in school libraries. Acoustics, lighting and temperature levels, amongst other factors, all have an impact upon the learning experience that takes place in any school space. How we approach the creation of library reading spaces will be discussed with a particular focus on student views and opinions. Furniture, layout, colour, display and ambience will all be considered in light of how they affect comfort and learning opportunities. A number of illustrative examples of school library reading spaces and the views of students will be shared with the audience during the formal presentation.*
**KEYWORDS:** READING SPACES, DESIGN, READING
**TRACK:** SUPPORTING READING INSTRUCTION

**PAPER**
**Task-based Models of Children's Information-seeking Behavior in Digital Libraries**
**Dania Bilal, Sonia Sarangthem (USA)**
**Host: Luisa Marquardt (Italy)**
**Room 104**
*This paper presents four empirical task-based models of Arabic-speaking children's information-seeking behavior in using the International Children's Digital Library (ICDL). Children performed four tasks that varied by type and structure. The models consist of seven modes of behavior and a range of moves associated that characterized children's behavior. Included are affective states before and after using the ICDL. Children's behavior was iterative and non-linear. The type and structure of the tasks influenced children's information-seeking behavior. Implications are made for practitioners, school teachers, and researchers.*
**KEYWORDS:** CHILDREN, DIGITAL LIBRARIES, TASK-BASED MODELS, ICDL
TRACK: RESEARCH FORUM

**PAPER**
**Information Seeking Behaviors of Children and Youth: Challenges and Implications for Information Literacy Instruction: A Review of the Literature**
**Clayton A. Copeland (United States)**
**Host: James Herring (Australia)**
**Garden Room**
*Research indicates that technological advances are changing the ways people are searching for, finding, and using information for personal, professional, and educational purposes (Bernier, 2007; Heath, 2007; Perrault, 2007). Human information behavior encompasses people's information needs, information seeking behaviors, information contexts, patterns of information access, retrieval, processing, and use. An emerging area of human information behavior is the information seeking practices of youth. Research suggests the need for educators to adapt instruction and refine students' Information Seeking skills and foster advanced information literacy.*
**KEYWORDS:** INFORMATION SEEKING BEHAVIORS, INFORMATION LITERACY INSTRUCTION
**TRACK:** RESEARCH FORUM

**PAPER**
**The National Reading Plan and the School Libraries Network Programme: an intensive collaboration**
**Ana Pereira Martins (Portugal)**
**Alexandra Marques (Portugal)**
**Host: Tom Kaun (USA)**
**Room 203**
*The main purpose of this paper is to present how an intensive collaboration between the National Portuguese Reading Plan and the School Libraries Network Programme play an important role in the promotion of reading literacy, as a baseline to develop all kinds of other literacy abilities, empowering the role of school libraries and the collaborative work between the school community and the school library.*
**KEYWORDS:** SCHOOL LIBRARIES, NATIONAL READING PLAN, LITERACY, READING
**TRACK:** SUPPORTING READING INSTRUCTION

**PAPER**
**School Libraries as Foundation for World Class Learning: Experiences of an Indian Librarian**
**Rashmi T. Kumbar (India)**
**Host: Paulette Stewart (Jamaica)**
**Room 204**
*What is the outcome if library resources are highly valued, are in great condition, well organized, etc. but there are no takers for these resources or the users lack the skills to use the resources? Some of the reasons for this shortcoming may be due to the absence of proper initiatives, promotion of resources and the services by the librarians. This paper attempts at combining the librarianship skills and literacy skills, resulting in the emergence of practical techniques and to how to apply this knowledge for promotion of the resources available and the services offered. Some successful strategies include Structured Library Periods, Adopt a Book Project, Five Best Friends in the Library, Focus Group Discussions, Application of Multiple Intelligence Theory for K-2 Students, and Use of Open Access Resources in ZSE RC. These practices are simple, innovative and create a positive student impact. They also increase the library's contribution in achieving the school mission and are adaptable by the school libraries or librarians in developing countries.*
**KEYWORDS:** PROGRAM ADMINISTRATION, MULTIPLE LITERACIES
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

## Wednesday, Session L, continued

**PAPER**

**"I Hate to Read - Or Do I?"**
**Low-Achievers and Their Reading**
**Carol Gordon, Ya-Ling Lu (USA)**
**Host: Janet Claassen (USA)**
**Executive Dining Room (EDR)**
*This study challenges assumptions about struggling readers. Do struggling readers consider themselves readers outside of school, where they have choices that relate to what they like to do? Do they read? What do they read? Do they really hate to read? Gender and grade level emerged as factors in participation rates in the program. Student responses emphasized the importance of relevance of reading materials to reading preferences. Low achievers had a strong preference for alternative reading materials.*

**KEYWORDS:** LOW-ACHIEVERS, ADOLESCENT READING
    BEHAVIOR, YOUNG ADULT READING INTERESTS
**TRACK:** RESEARCH FORUM

# 1:00 - 2:00pm Lunch

# 2:00 - 2:45pm - Session M

**WORKSHOP**
**World-Class Learning:**
**Teacher Librarians as Leaders in Web 2.0 World**
**Jennifer Branch, Joanne deGroot (Canada)**
**Host: Marilyn Kiefer (USA)**
**Room 102**
*This workshop will provide a brief overview of Web 2.0 and a description and demonstration of how these collaborative tools have been used in a new course in the Teacher-Librarianship by Distance Learning program at the University of Alberta. Participants will then be encouraged to engage in a discussion with the workshop leaders about teacher-librarian training if and how Web 2.0 should be integrated into course curriculum. Examples from other university programs and ideas about how Web 2.0 is used in schools and school libraries will be welcomed. This discussion will be an opportunity for anyone interested in school library and teacher-librarian education to examine and discuss trends and issues related to Web 2.0 in school libraries.*

**KEYWORDS:** WEB 2.0, TEACHER-LIBRARIANSHIP EDUCATION,
    TECHNOLOGY INTEGRATION
**TRACK:** DIGITAL LITERACY

**WORKSHOP**
**Kamishibai Story Theater:**
**The Art of Picture Telling**
**Dianne de Las Casas (USA)**
**Host: Celestine Bloomfield (USA)**
**Room 203**
*Kamishibai is the Japanese art of telling with pictures. Author & Award-Winning Storyteller Dianne de Las Casas will guide participants in telling stories from Asia with self-illustrated story cards. The workshop culminates in a collective performance of a Kamishibai story by the workshop participants. An amazing collaborative process, this workshop brings out the creativity in each participant. Limit 100 participants. Kamishibai Story Theater: The Art of Picture Telling is a title with Teacher Ideas*

*Press (September 2006).*
**KEYWORDS/KEY PHRASES:** KAMISHIBAI, STORY THEATER,
    STORY THEATER
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL
    LIBRARIES

**PAPER**
**I-LEARN: A Model for Creating Knowledge in the Information Age**
**Delia Neuman (USA)**
**Host: Marcia Mardis (USA)**
**Room 104**
*The I-LEARN Model—Identify, Locate, Evaluate, Apply, Reflect, kNow—both describes the process of learning with information and provides a learning sequence that children and youth can be taught. Grounded in research and theory, it is also based on the author's own research and writing. This theoretical model reflects an inquiry approach to learning and builds on the three-part information-literacy paradigm that underlies many instructional activities conducted in library media centers: accessing, evaluating, and using information. It expands that paradigm to focus specifically on the use of information as a tool for learning. In this session, the I-LEARN Model will be presented, followed by a group discussion for feedback.*

**KEYWORDS:** INFORMATION AND LEARNING,
    INQUIRY LEARNING, INFORMATION LITERACY
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**PAPER**
**Libraries of the Ages: The Diglibs**
**Madhu Bhargava (India)**
**Host: Carrie Gardner (USA)**
**Room 204**
*Digital libraries are cost-effective reading resources for school librarians. A case study of G.D.Goenka Schools in India will be presented in the paper. The current economic trends in the Information and Publishing industry will be examined and how school librarians are affected. Digital Libraries as reading resources are a new paradigm that may help to meet the economic parameters of the institutions. The paper will compare digital reading resources with traditional reading resources and It will establish that $21^{st}$ century learner is truly digital native and is very confident and comfortable with technology and online reading. It will also be emphasized that it is the format which is changing, and not the content or its importance. The main goal of this paper is to show how school librarians can adopt strategies to use free digital reading resources to build reading communities of young and young adult students by providing case studies and a toolkit used by the school.*

**KEY WORDS:** DIGITAL READING RESOURCES,
    READING STRATEGIES, READING PROGRAMS
**TRACK:** BUILDING A COMMUNITY OF READERS

## Wednesday, Session M, continued

**PAPER**
**An Investigation of the Information-Seeking Behaviors of pre-service and in-service Science teachers and their use of the School.**
**Edward Lomax (USA)**
**Host: Ann Carlson Weeks (USA)**
**Executive Dining Room (EDR)**
*This presentation is a component of a larger study that examined the information seeking behaviors of both in-service science educators and pre-service teacher education students in an alternative Master of Education in Science Education program in a research university located in the Southeastern United States. Among the goals of this study were to learn more about the information seeking and retrieval behaviors of K-12 science educators that are a component of lesson planning and teaching in science education and ascertain the centrality and utility of the library and school library media center on the information-seeking behavior of this cohort of pre-service educators.*
**KEYWORDS:** INFORMATION SEEKING BEHAVIOR, SCIENCE EDUCATION, INFORMATION LITERACY
**TRACK:** RESEARCH FORUM

## 2:45 - 3:15pm Tea in Garden Room

## 3:00 pm CAL Library Tours

**Tour 1A**
**C.V. Starr East Asian Library**
**Led By: Deborah Rudolph, C.V. Starr Library (USA)**
**Event Coordinator: Jean Jay (USA)**
**Fee: $10  - advance registration necessary**
*The newest library on campus - C.V. Starr East Asian Library, opened its doors in October, 2007.  You can preview this library at http://www.lib.berkeley.edu/EAL or http://www.berkeley.edu/news/media/releases/2007/10/16_eal-facts.shtml . We are honored to have Deborah Rudolph give us a tour of the CV Starr East Asian Library!  Ms. Rudolph's background in East Asian studies is vast.  She has an MLS, a PhD in classical Chinese, and long, long association with this library, as well as with the Berkeley's East Asian studies program. Ms. Rudolph got her PhD here in the Department of East Asian Languages fifty years after her father got his!  The opportunity to be greeted by such a luminary is rare.  We are indeed fortunate to have Ms. Rudolph give us this tour!  RSVP to Jean Jay at librmet@gmail.com.  Fee payable at registration.  On site reservation and payment depends on space available.  Limit of 25 participants.*

**Tour 2A**
**Robbins Collection, School of Law, Boalt Hall**
**Led By: Jennifer K. Nelson, Reference Librarian,**
**   The Robbins Collection, UC Berkeley School of Law**
**   (Boalt Hall) (USA)**
**Coordinator: Jean Jay (USA)**
**Fee: $10 - advance registration necessary**
*Please preview the library at http://www.law.berkeley.edu/library/robbins/ .  Jennifer K. Nelson is a reference librarian at the Robbins Collection. She is the reading room supervisor and will be able to give us details about the collection.  Tour participants will be able to not only view rare books over 600 years old; but will be allowed to touch some of these rare documents.  Attendees will also see where and how rare books are stored and maintained.  Visiting scholars come from around the world to do their research here.  This is a unique opportunity, not normally open to the public! RSVP to Jean Jay at librmet@gmail.com .  Fee payable at registration, advance reservation necessary.  On site reservation and payment depends on space available.  Limit of 10 participants.*

## 3:15 - 4:00pm
## General Meeting (AGM)

**Chair: James Henri (Hong Kong)**
**Theatre**
*According to the IASL Constitution, the following business must be conducted at each annual general meeting: receiving the statement of income and expenditure, assets and liabilities, of the Association for the last financial year; receiving the auditor's report on the financial affairs of the Association for the last financial year; presenting the audited statement to the meeting for adoption; electing Executive Committee, Officers and Regional Directors of the Association; appointing an auditor confirming actions of the Executive Committee providing direction for the future activities of the Association. All IASL members are welcome.*

## Wednesday

### 4:15 - 5:00pm
### Special Interest Groups (SIGS)

**Advocacy,** Theatre
**Children's and Young Adult Literature,** Rm. 203
**Information and Communication Technologies,** Rm. 102
**Information Literacy,** Rm. 204
**International Development,** D1 (adjoining building)
**International Focus: Schools and Baccalaureate,** Garden Room
**School Library Education,** Rm. 104
**School Library Research,** Executive Dining Rm. (EDR)

### 6:00 - 7:00pm Banquet

### 7:00 – 8:00 Auction in Dining Room

**Auctioneer: Gerald Brown (Canada)**
*Join Auctioneer Brown and his team for a high-energy live auction of items donated from around the world! This is a traditional highlight of the IASL conference. Items will be on display in the Garden Room beginning on Monday.*

# Thursday, Aug. 7

## 7:00am Breakfast

## 8:30 - 9:30am Regional Meetings

| | |
|---|---|
| Region 1, Africa/Sub-Sahara | Garden Room |
| Region 2, Asia | Rm. 104 |
| Region 3, Canada | EDR |
| Region 4, Latin America/Caribbean | Rm. 102 |
| Region 5, East Asia | D1 |
| Region 6, Europe | D1 |
| Region 7, North Africa and Middle East | D1 |
| Region 8, Oceania | EDR |
| Region 9, USA | Rm. 204 |

## 9:30 - 11:00am

## IASL Exhibits, Posters, Roundtables, Archives, Project Displays, and Coffee in the Garden Room

**LOCALLY PRODUCED MATERIALS EXHIBIT**
**IASL Publication & Information Dissemination Committee**
**Chair: Fran Luther (USA)**
*This exhibit, hosted by Fran Luther, contains materials related to school libraries produced by local educational jurisdictions of IASL members that would be helpful to others trying to improve school libraries in various corners of the world.  This exhibit, organized by the Publication and Information Dissemination Committee, invites items in various formats, including print monographs, brochures, posters, and electronic resources such as CD-ROM.  This information will be compiled into a bibliography and posted on the IASL website as has been done for the past three conferences.  IASL members, therefore, can view the materials at the conference Locally Produced Materials Exhibit, and also read about the materials online.  After the conference, the Exhibit materials will be donated to a local library.   Please contact Fran Luther at fluther@towson.edu if you have any questions regarding this exhibit.*

**CHILDREN'S BOOK EXHIBIT**
**Chair: Ruth Cady (USA)**
*Enjoy an opportunity to peruse books from children donated by IASL members from around the world.  Following the conference, these books will be donated to a Native American reservation school.*

**AUCTION**
**Chair: Gerald Brown (Canada)**
*Didn't get everything you wanted at Wednesday night's auction? The raffle and silent auctions continue today.*

**IASL 2009: PADUA, ITALY**
**Co-Chair: Luisa Marquardt (Italy)**
*Luisa Marquardt, representing the Italian Conference Committee, shares preliminary information regarding the IASL 2009 conference.*

**POSTER**
**Collection Development: Should School Libraries Standardize?**
**Elizabeth E. G. Friese (USA)**
*The United States educational system is in an age of standardization.  The implementation of the No Child Left Behind Act has created a climate that is driven by test scores as well as a renewed focus on basic literacy skills. What does this trend toward standardization mean for school library materials selection?  Should school library collections be standardized as well? These questions will be addressed using theory and research from the fields of both literacy education and librarianship.*
**KEYWORD:** COLLECTION DEVELOPMENT, CURRICULUM, LITERACY SUPPORT
**TRACK:** SUPPORTING READING INSTRUCTION

**POSTER**
**E-Learning in School Libraries**
**Busi Dlamini (South Africa)**
**Mona Niemand (South Africa)**
**Anna Brown (South Africa)**
**Dithakong Khanye (South Africa)**
*E-learning initiatives in South African school libraries have powerful potential to support disadvantaged schools, build professional networks and enhance classroom teaching and learning.  We will discuss the outcomes of the conference held in Midrand, Gauteng Province, South Africa, in 2006.  The theme was Transforming School Libraries into Information Workshops. Participants discussed access to print and ICT resources in all types of schools, how to ensure proficiency in reading and information skills, creative solutions in making space to set up a library, useful websites for teachers and librarians, writing projects, fundraising initiatives of schools, trends in e-learning and e-research, reading and e-learning policies and developments in the various provinces of South Africa.  Featuring the slogan Empowering teachers to develop learners, the poster weaves together the image of books and the metaphoric quality of birds, representing the freeing of the mind.*
**KEYWORDS:** READING, E-LEARNING / ICTS, SCHOOL LIBRARIES
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**~ Posters continue on next page ~**

## Thursday Posters and Exhibits, continued

**POSTER**
**The Integration of the Research Techniques Class into Librarianship**
**Sebnem Yalcin (Turkey)**
*In this presentation, information about the research techniques programs at our school will be provided, as well as curriculum development work done and the integration of this class into library studies will be explained. Examples of the integration work will be given in addition to showing applications of the program. The school's academic honesty policy and educating teachers and students how to avoid plagiarism will be among the topics discussed as they are highly relevant to our subject field.*
**KEYWORDS:** INTERDISCIPLINARY WORK,
    RESEARCH TECHNIQUES PROGRAMS,
    CURRICULUM DEVELOPMENT WORK
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**POSTER**
**Linking Readers with Web 2.0 Technologies**
**Terry Morriston (USA)**
*"Can we talk?" (begins the well-known comedy routine). You bet we can talk—and improve literacy at the same time! Librarians can use Web 2.0 technologies to have students of all ages, and particularly teenagers, "talk" about what they read, thus creating a circle of readers, creators, and publishers in a community without boundaries. This poster session will show how librarians can blogs, wikis, podcasts, Google Docs, RSS feeds, Second Life, YouTube and social bookmarking, etc., to promote higher level thinking skills and multi-modal literacies. Handouts will also be available.*
**KEYWORDS:** LITERACY, TECHNOLOGY, BEST PRACTICES
**TRACK:** BUILDING A COMMUNITY OF READERS

**POSTER**
**Information Seeking Behaviors of Children and Youth: Challenges and Implications for Information Literacy Instruction**
**Ms. Clayton A. Copeland (USA)**
*Research indicates that technological advances are changing the ways people are searching for, finding, and using information for personal, professional, and educational purposes (Bernier, 2007; Heath, 2007; Perrault, 2007). Human information behavior encompasses people's information needs, information seeking behaviors, information contexts, patterns of information access, retrieval, processing, and use (Todd, 2003). An emerging area of human information behavior is the information seeking practices of youth. Research suggests the need for educators to adapt instruction refine students' Information Seeking skills and foster advanced information literacy (Branch, 2003; Dixon & Shenton, 2005; Kuhlthau, 1994, 2003; Laverty, 2002; Limberg, 2003; and McGregor, 1994)*
**KEYWORDS:** INFORMATION SEEKING BEHAVIORS (CHILDREN
    AND YOUTH), INFORMATION LITERACY INSTRUCTION
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**FOCUS ON THE IASL ARCHIVES**
**Coordinated by Gerald Brown (Canada)**
*What is happening in school librarianship and SL education in various countries around the world? at the grassroots level? at the Ministerial level? through professional development? through awards and scholarships? Who are the leaders locally and internationally? What role has IASL played in compiling and recording this information through proceedings, working papers, conference activities, personal biographical files, records of meetings, commentaries on the listserv, reports, and discussions from the website. The Archives collection for IASL is housed at Western Michigan University in Kalamazoo, Michigan (USA). It has now been organized and indexed from 1971-Dec 2007. Come to this session to become aware the kinds of material that are in the files. Discover how you can access these resources. Hear about some of the trends and patterns that are repeated in our history. Obtain a copy of the Index at the session. See print samples of the index there too.*
**KEYWORDS:** ARCHIVES, IASL HISTORY
**TRACK:** SPECIAL EVENT

# 9:30 – 11:00am
# In the Past: Tea for Long-Time Members

**Host: Blanche Woolls**
**Executive Dining Room (EDR)**
*Long-time members are invited to reminisce over tea.*

# Thursday, 11:00 - 11:45am - Session N

**SPECIAL EVENT** (double session until 12:45pm)
**Bay Area Showcase**
**Coordinator: K.E. Hones**
**Kelly Korenak, World Savvy: Think Beyond Your Borders**
**Maxine Einhorn, KQED Public Television**
**Michele Delattre,**
    **Office of Resources for International and Area Studies**
    **(ORIAS), University of California, Berkeley**
**Room 204**
*Learn about unique community resources for librarians, teachers and students. Each organization will have display information including on line access for international school libraries. Each program to give brief overview and there will be time for participants to walk around, meet program representatives and look at displays from each organization.*
**KEYWORDS:** COMMUNITY COLLABORATION, ONLINE RESOURCES, COMMUNITY ORGANIZATIONS
**TRACK:** SPECIAL EVENT

**WORKSHOP**
**Dancing in the Library: Multiple Intelligence and Other Theories in the School Library**
**Katharina B.L. Berg (Brazil)**
**Host: Paulette Stewart (Jamaica)**
**Room 104**
*This workshop presents a framework to support and promote collaborative information skills curricula, empower persons responsible for the school libraries, establish partnerships with the classroom teachers and motivate both to come forth as agents of change and innovation. It is being developed in Brazil to bridge the existing gap between these professionals which is caused mainly by the lack of school libraries, of qualified school librarians and of school library tradition. Karl Popper's "Theory of Three Worlds" is the foundation of the method which also incorporates the pedagogical and educational research of Howard Gardner (Multiple Intelligence Theory), David Perkins (Teaching for Understanding) and Edgar Morin (Trandisciplinarity). This workshop intends to go a step beyond the teaching of information skills by demonstrating how theories and media can challenge and change the traditional concept of library and of literacy and how standards and benchmarks can and should be adapted to benefit students and educators of diverse resources and cultural realities.*
**KEYWORDS:** CURRICULUM DEVELOPMENT, ELEMENTARY AND SECONDARY EDUCATION, MULTIPLE INTELLIGENCE
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

**WORKSHOP**
**World Class Literacy: Building a Community of Readers with Public Library Summer Reading Programs**
**Joanne de Groot (Canada)**
**Host: Carrie Gardner (USA)**
**Room 102**
*Public libraries provide an important service to their communities each year when they offer programs that encourage summer reading. Using a variety of activities and reading games, the overall goal of a summer reading program is to encourage children to read recreationally throughout the summer months. This workshop will provide an overview of some of the current research about the impact of summer reading programs on children's reading interests and habits. Participants in the session will also be given an opportunity to share ideas for working with public libraries to create partnerships that support and sustain summer reading programs.*
**KEYWORDS/KEY PHRASES:** PUBLIC LIBRARIES, SUMMER READING PROGRAMS, READING
**TRACK:** BUILDING A COMMUNITY OF READERS

**PAPER**
**Building Knowing Readers: Unlocking Pleasure**
**Susan La Marca (Australia)**
**Host: Terri Morriston (USA)**
**Executive Dining Room (EDR)**
*There is clear evidence of a relationship between pleasure reading and literacy development. Further analysis stresses the centrality of engagement to pleasure. In exploring these relationships the importance of choice, talk, and variety will be discussed. The role the teacher-librarian plays in facilitating interactions with text that promote pleasure and the importance of relationships, knowledge and collection building will be addressed with reference to research and practice. This paper builds on earlier presentations on this and related topics.*
**KEYWORDS:** READING, PLEASURE, ENGAGEMENT
**TRACK:** BUILDING LITERACY SKILLS IN SCHOOL LIBRARIES

# 12:00-12:45pm Session O

**SPECIAL EVENT**
**Bay Area Showcase**
*Continues from previous session*

**PAPER**
**Lithuanian School Libraries Today:**
**Problems and Perspectives**
**Irena Kryzanauskiene (Lithuania)**
**Host: Kristin Fontichiaro (USA)**
**Room 102**
*The situation of Lithuanian school libraries and the status of librarians are ambiguous, because libraries are financed by Ministry of Education and Science, but legal acts, except the laws, are organized by the Ministry of Culture. School libraries are very important among other libraries in Lithuania according to the latest statistical data of Lithuania. In 2000 the computerization of school libraries started, and in 2004 they were instilled with a simplified version of the Lithuanian Integrated Library Information System (LILIS) – so called Information System of School Libraries (ISSL).The questioning of school librarians was done in 2006-2007 years. Analysis of questionnaires showed that there are some problems in activity of school libraries. The Standard of Digital Literacy of School*

**~ Session O continues on next page ~**

## Thursday, Session O, continued

Librarians (SDLSL) has contradictory estimations. It contains extremely high requirements for school librarians in the sphere of ICT use.  Lithuania's school librarians do not have a professional association. Members of IASL in Lithuania are only separate school librarians. Methodical help to school libraries should be given by the Municipality public libraries, but the help is given not very often. In some towns more active and experienced librarians organize methodical groups and give seminars for those who are less experienced. School librarians take part in different state activities. 2008 is announced to be a Year of Reading in Lithuania. The Year of Reading is a stage of Reading Promotion Program confirmed by the Government.

**KEYWORDS:** LITHUANIAN LIRARIES, READING PROMOTION, READING YEAR

**TRACK:** SUPPORTING READING INSTRUCTION

**PAPER**
**The "We" feeling: Cross-border, cross-language, cross-culture co-operation amongst school librarians who work in Europe**
**Helen Boelens (Netherlands)**
**Read by Gerald Brown (Canada)**
**Host: Jessica Lee (USA)**
**Room 104**
The objective of this paper to help promote a feeling of cross-border, cross-language, cross-culture co-operation amongst school librarians on a European level - a "We" feeling – a feeling of "togetherness." Research shows that school librarians throughout Europe are actively promoting the important work which they are doing, on a national level. By working together on a European level, they can more effectively promote school librarianship in the European Union.  The paper also attempts to make colleagues throughout the world more aware of some very specific, European school library problems.

**KEYWORDS:** EUROPEAN UNION, PROFESSIONAL CO-OPERATION, LIBRARY PROMOTION

**TRACK:** SUPPORTING READING INSTRUCTION

**WORKSHOP**
**Acceptable Use Policy Language:**
**Impact on Student Use of Information**
**Carrie Gardner (USA)**
**Host: Terri Morriston (USA)**
**Executive Dining Room (EDR)**
Internet access for school students is vitally important.  Yet there is no standard for acceptable use policies, Internet use policies, or computer behavior policies.  This workshop will look at commonly found components in policies and their impact on student access.  Participants are welcome to bring examples of internet access policies for students.  For those who don't, sample policies will be provided.  Interactive time will allow us to examine and discuss real life issues faced by school librarians who offer internet access.

**KEYWORDS:** ACCEPTABLE USE POLICY, COMPUTER POLICY, COMPUTER USE

**TRACK:** DIGITAL LITERACY

## 1:00 – 2:30pm Closing Lunch

**LUNCHEON PRESENTATION**
**Benefits from NGO – School Library Cooperation:**
**The China Experience**
**Faith Chao, Ph.D., Evergreen Education Foundation (USA)**
**Chair: Blanche Woolls (USA)**
For the last few years, a number of non profit organizations from both within and outside of China have been active in supporting school libraries in China, especially in rural areas. Although the primary method of support takes the form of providing books, many organizations have also provided computers, library management software, training, reading programs and organizing conferences, competitions, exhibits and workshops for students, teachers and librarians. This presentation will primarily address those activities sponsored by The Evergreen Education Foundation with a discussion of the benefits observed.

## 2:30pm CAL Library Tours

**Tour 2B**
**Robbins Collection, School of Law, Boalt Hall**
**Led By: Jennifer K. Nelson, Reference Librarian,**
   **The Robbins Collection, UC Berkeley School of Law**
   **(Boalt Hall) (USA)**
**Coordinator: Jean Jay (USA)**
**Fee: $10  - advance registration necessary**
Please preview the library at http://www.law.berkeley.edu/library/robbins/ .  Jennifer K. Nelson is a reference librarian at the Robbins Collection. She is the reading room supervisor and will be able to give us details about the collection.  Tour participants will be able to not only view rare books over 600 years old; but will be allowed to touch some of these rare documents.  Attendees will also see where and how rare books are stored and maintained.  Visiting scholars come from around the world to do their research here.  This is a unique opportunity, not normally open to the public! RSVP to Jean Jay at librmet@gmail.com .  Limit of 10 participants.  Fee payable at registration, advance reservation necessary.  On site reservation and payment depends on space available.  Meet at the Front Desk in Building 1.

## 3:30 – 7:00pm Executive Committee/Board Meeting in Executive Dining Room

# Exhibitors

These exhibitors are available Monday, 10am – 4pm and Tuesday, 9:45am – 4pm in the Garden Room.

**Alexandria**
(Table 3)
1831 Fort Union Blvd.
Salt Lake City UT  84121
801.943.7277; Fax 801.943.7752
ttateyama@companioncorp.com
Stephen Kunsler

**California School Library Association**
(Table 4)
717 K St.  Ste 515
Sacramento CA 95814-3477
916.447.2684; Fax 916.447.2695
Mary Ann Harlan, President

**Libraries Unlimited/
Greenwood Publishing**
(Tables 1 – 2)
88 Post Rd.
Westport Ct  06881-5007
203.226.3571 x 3390
Fax 203.222.1502
Lori.Dombroski@greenwood.com
Sharon Coatney; Deborah Levitov;
Dr. Blanche Woolls

**LMC Source**
(Table 7)
PO Box 131266
Spring TX  77393
800.873.3043; Fax 936.271.4560
lmcsourcesales@gmail.com
Dr. David Loertscher; Richie Partington

**Stop Falling Productions**
(Table 5)
160 N Main St.
St Clair MO  63077
636.629.1887; Fax 636.629.1584
info@stopfalling.com
Sarah Hedrick

**San Jose State University
School of Library and
Information Science**
(Table 6)
One Washington Square
San Jose CA 45192-0029
408.924.2490; Fax 408.924.2476
office@slis.sjsu.edu
Sheila Tripp

**University of North Texas
School of Information and
Library Science**
(Table 8)
PO Box 311068
Denton TX  76203-1068
904.565.2445/1.877.ASK-SLIS
Fax 940.565.3103
slis@unt.edu
Dr.Yunfei Du; Dr. Barbara Stein Martin

# 38<sup>th</sup> Annual IASL Conference

## *School Libraries in the Picture: Preparing Pupils for the Future*
## Padua, Italy, September 2009

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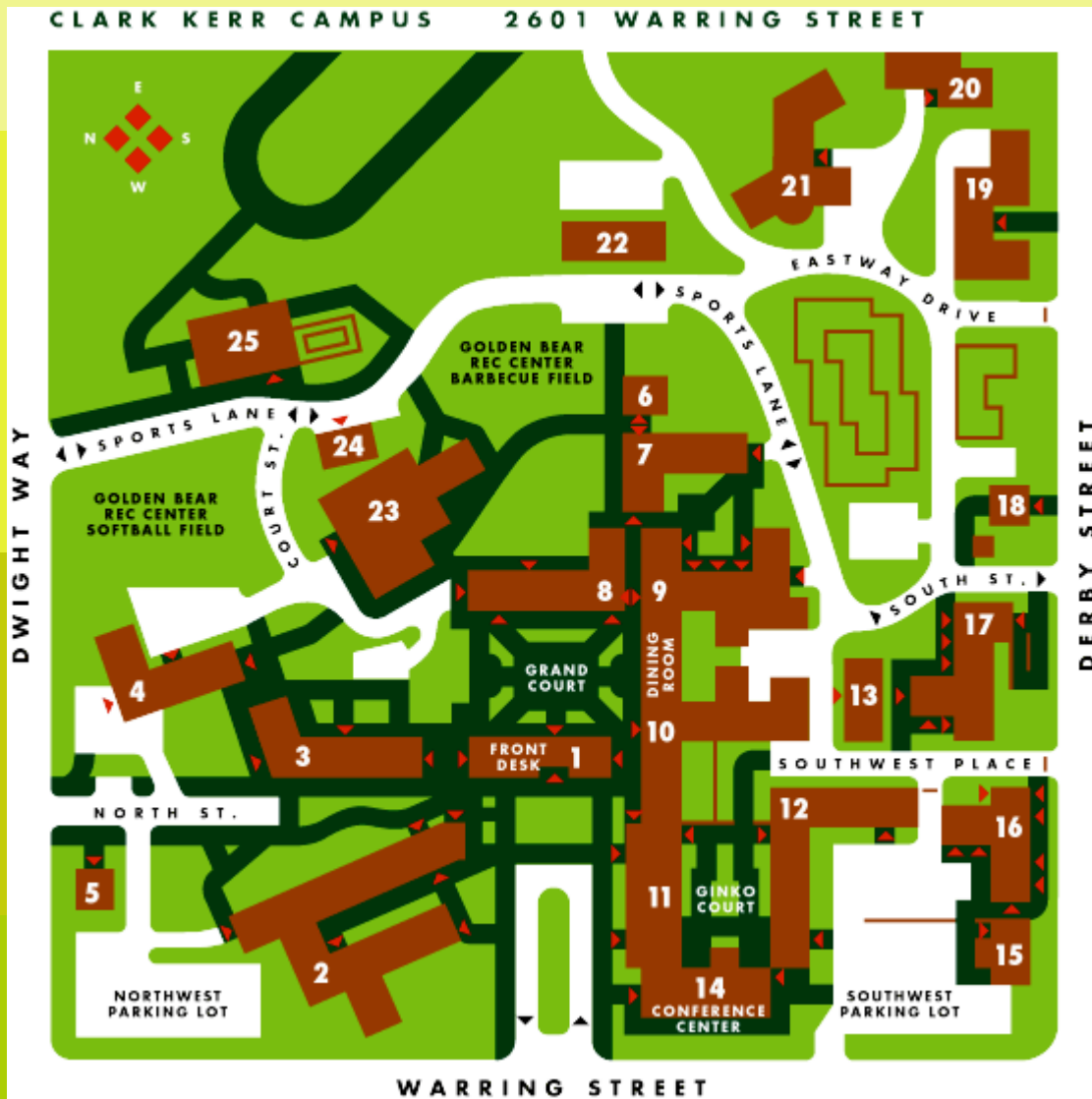**Preconference, Padua, September 1, 2009**

***Reading in the Digital Age: educating the passionate and critical reader through the school library***

Location: University of Padua, Palazzo del Bo

*In collaboration with Ensil, Ecis and IFLA SLRCs*

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**Conference:** Abano Terme (Padua), September 2 – 4, 2009

**Theme:** Information Research through the School Library

**Subthemes:** (1) Methodology of research: searching for information through the school library; (2) Learning outcomes and competent use of school libraries; (3) Cooperation for a successful learning: partnerships between school librarians/information specialists and teachers, public librarians, and parents; (4) Web 2.0 as an educational tool; (5)School library services, curriculum enhancement and learning outcomes: the principal's role

**Other Activities:** Poster sessions, trade exhibition (books, ICT for libraries, electronic resources, etc.), workshops, gala dinner, library visits (school and public), city tours (Padua, Venice, Vicenza, etc.)

**Location:** Hotel Alexander Palace at Abano Terme (near Venice and Padua) can be reached through airport Venice or by train from Padua (10'),Venice (from 34' to about 60'), Milan (about 3h), and Bologna (1h 30'). Abano Terme is a well- known SPA town with a very good library system.

**Important dates:**
Sept. 1, 2008:    Early-early bird registration opens
Dec. 31, 2008:    Closing date for submission of proposals and abstracts
Jan. 1, 2009:    Early bird registration opens
Feb. 28, 2009:    Notification of acceptance of proposals and abstracts
Mar. 31, 2009:    Deadline for submitting papers to be included in the proceedings
May 1, 2009:    Regular registration opens

**Organizers:** University of Padua; AIB (Associazione italiana biblioteche/Italian Library Association)

**Sponsors:** Ministry of Education; Ministry of Cultural Heritage; Goethe Institut Italien
(and some other Foreign Cultural Institutes in Italy)

**Local Authorities:** Regione Veneto; Provincia di Padova; Comune di Abano Terme; Sistema bibliotecario di Abano – Regional Education Agency (USR Veneto)Terme; local bank foundation.

**Scientific Committee:** Conference Coordinator Prof. Donatella Lombello (donatella.lombello@unipd.it) with Dr Luisa Marquardt (marquardt@uniroma3.it); Other members of different countries to be confirmed

**Organizing Committee:** Università di Padova: (D.sse Ilaria Fava and Marny Campagnaro), AIB SLRCs, SABI Work, Padova, D.ssa Luciana Bilotti

**Conference website URL: http://www.iasl-online.org/events/conf/2009/**

CLARK KERR CAMPUS    2601 WARRING STREET

1. Administration
   - Front Desk
   - Academic Center
   - Conference Services Office
   - Room D-1
2. Suites
3. Residence Hall
4. Residence Hall
5. Child Care
6. Residence Hall
7. Residence Hall
8. Residence Hall
9. Suites
10. Dining Center
    - Garden Room
    - Great Hall
    - Executive Dining Room (EDR)
11. Suites
12. Residence Hall
13. Steam Plant
14. Clark Kerr Campus Center
    - Theatre
    - Conference Rooms 102, 104, 203, and 204
15. Child Care Center
16. Suites
17. Suites
18. Faculty House
19. Faculty Apartments
20. Faculty Apartments
21. Archives
22. Archives
23. Archives
24. Recreation Maintenance

25. Golden Bear Recreation
Center