Sharing the Evidence:

School Library Assessment Tools and Resources

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Introduction

No other era in the history of school libraries has matched the demand for accountability as the current one. What difference do you make? Are the scores higher because we have a library and a librarian? Couldn't a clerk do the same as a professional and save us some money? The questions of impact are everywhere and require a response.

The authors, over a number of years, have created, presented, and urged the adoption of a variety of assessment measure of the focal point programs of the library. We have assumed that the famous Lance studies since 1990, while very powerful evidence, have not satisfied the demands for evidence. Yes, school libraries make a difference in Alaska, Pennsylvania, Michigan and other states, but do they really make a difference here in our school? In our community?

The authors have pulled together from a number of previous publications they have authored, a set of tools that we believe can form the central core of assessment measures of the library program. These have been updated and new ones added. These measures are arranged by principal program thrust:

- Collaboration
- Information Literacy
- Reading
- Technology
- Administration

Within each section, we offer measures that are at the organization level, the teaching unit level, and at the learner level. These measures are either direct measurement of learning or are indirect measures, meaning that they measure points to an environment where learning can take place. Obviously, direct measures of learning are preferable. Some tools mentioned have both direct & indirect measures and some can be used for assessment at more than one level.

We do have some direct measures included. The most important is the action research study recommended: Are Two Heads Better Than One? – where both the teacher and the librarian jointly assess a learning activity in the library. This has not often been done as a collaborative effort, but when it does, there is actual evidence at that point for those students that something did or did not happen. One would like to repeat such direct measures over and over again as they feed into the major testing every student takes. We recognize, however, that one such unit per year for a teacher is not likely to raise "scores." Multiple opportunities would.

Our approach is that a variety of measures, taken together, provide a triangulation of evidence so that if it quacks like a duck, walks like a duck, and looks like a duck, it must be a duck.

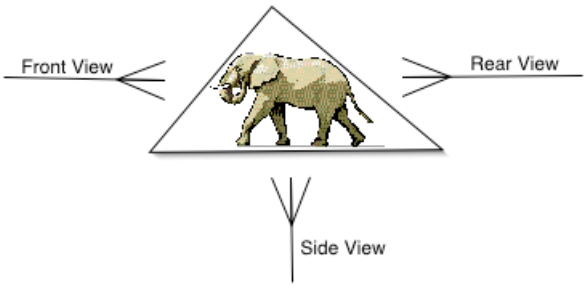
We have provided more assessment ideas than any one librarian would likely use and throughout, we encourage the user to adapt the measures for their own local needs. Thus, our measures are suggestive, not prescriptive. Some might be threatening to librarians who might not be as far along in program development as they wish to be. However, we hope that a more visionary program assessment might encourage development along the lines we have suggested.

Some measures might seem to overlap others. They do. One selects the best tools, combines them with others, and tries them out in a local situation. We see this exercise as a perfect task for

a professional learning community of school librarians in a district or even a professional learning community within a school where a grade level team or department is seeking measures of their impact when opening their classroom doors to the possibilities offered by the library.

On the next few pages, we reprint material from the book *We Boost Achievement* by Ross Todd and David Loertscher. These pages explain in greater detail what we mean by triangulation of evidence, levels of study, as well as direct and indirect measures.

Triangulation of Evidence



Triangulation of evidence means to collect data from various points of view or vantage points before making a decision and taking action. To understand what an elephant is, it is better to get a view from the front, the rear and from the side rather than any single picture. Like the points of a triangle, there ARE different vantage points from which the impact on learning (the center of the triangle) can be viewed or validated. The trend in state and federal governments is to ask educators to collect more quantitative (or scientific) data by using more rigorous research designs. Those designs often require experimental conditions difficult to create in local schools. To compensate, since learning and teaching are not exact sciences, the more types of data we collect, the closer our views of the elephant will move toward validity. At the same time, local communities will need to learn to accept a wide variety of indicators of success rather than exclusively seeking test score evidence.

Librarians need to collect various evidences as a part of their effort to document what they contribute, what they do, and what they need to do next. Three major types of evidence suggested here, could be collected in any school to provide a more holistic view of the library media programs:

Data from the learner level. Data at the learner level such as achievement test scores are currently at center stage in the United States. Standardized test scores in almost every state have taken on great significance. There are, however, many other measures of how well an individual might be doing: portfolios, attitude, measures of performance, and other techniques used by both adults and learners to judge individual attainment.

Data from the teaching unit level. Data can be collected about the various learning experiences that are designed by adults to interact with library materials and technology. That is, we begin examining the impact of our resources on teaching and learning. "Because we have this, we did that." Data collected from the collaborative activities of teachers and library staff are quite powerful in describing impact. For example, the Lance studies did note that achievement was positively affected as the amount of collaboration between teacher and library staff increased.[1]

Data from the organization level. Common measures at the organizational perspective are size of facilities, the equipment available, the amount of funding provided, and the size of collections or staff. All these factors might be termed "inputs" or the resources we have to make a difference. They are often reported to accrediting agencies and in local reports to administrators and boards. The Lance studies of library impact looked at many inputs as they affect the "output" – reading scores.[2]

The Challenge: To use measures from all levels to triangulate the view of impact.

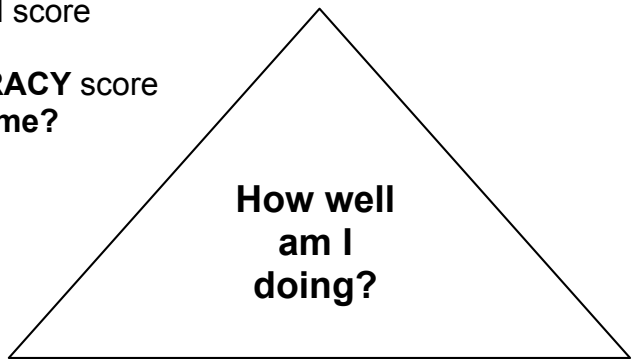
[1] See Lance, Keith Curry and David V. Loertscher. *Powering Achievement.* 3rd edition. Hi Willow Research & Publishing, 2005.
[2] *Ibid*.

Learner Level

Evidence-Based Practice
Triangulation of Data

During collaboration activities where teachers, librarian and teachers and other specialists combine expertise to enhance a learning experience, all members of the collaborative team should be interested in and help create measures whereby a learner will know how successfully they are growing and developing as learners. The measures here are designed from the learner's point of view.

Evidence:
- What I **KNOW** score
- What I can **DO/PERFORM** score
- My **AVID READER** score
- My **INFORMATION LITERACY** score
- **Am I doing better over time?**



Sources of evidence:

FROM THE LEARNER PERSPECTIVE	TESTING AND ASSESSMENT	TEACHER, Librarian, Tech PERSPECTIVE
Grade point averages	State tests	Checklists/questionnaires
Self-scored rubrics	Local tests	Conferencing
Journals	Performance tests	Demonstrations / showcase / re-enactment
Checklists/questionnaires		Journals
My own avid reader score		Portfolios
My information literacy score		Project assessments
Self-assessment of progress		Rubrics

Teaching Unit Level

Evidence-Based Practice
Triangulation of Data

Probing the impact of the instructional program, when the library and technology are integral, allows three major measurements to take place. These are measurements from collaboration logs, rubrics, and assessments of learning. What learning experiences have been created to help students achieve? Has collaboration between the teacher and the library staff affected the teacher's methods? How well have all the systems worked in support of the teacher? Did the impact of the library program show up as a factor across learners in a classroom? In learner rubrics? In other assessment measures?

Evidence:

- Spread of collaboration across the faculty
- LMC and technology systems work well
- Performance on assessment measures
- Improvement of learning experiences over time

Sources of evidence:

COLLABORATION MEASURES	RUBRICS (Group perspective)	ASSESSMENT OF LEARNING (Group Perspective)
Collaboration Logs	Quality of learning experience	Content learning
Impact!*	Contribution of technology	Product assessment
Collaborative units linked to library web page	Contribution of information literacy	Process assessment
Performance of library and technology systems		

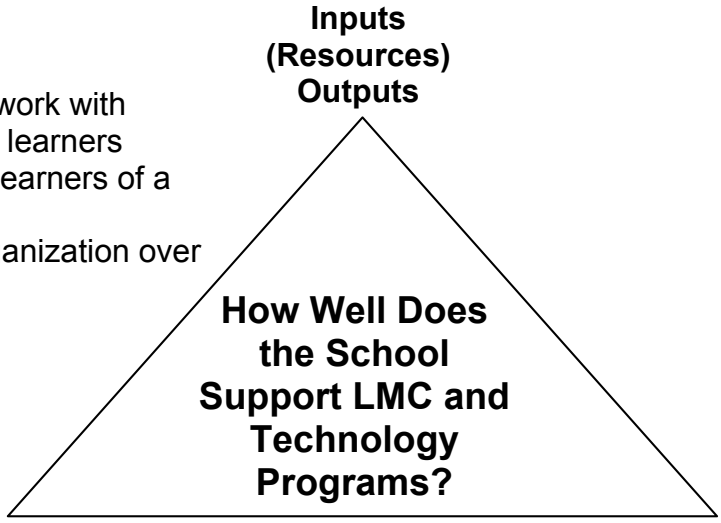
*Miller, Nancy. *Impact: Documenting the LMC Program for Accountability!* Salt Lake City, UT: Hi Willow, 2003.

Organization Level

Evidence-Based Practice
Triangulation of Data

Professionals need to keep the school community apprized of the library program performance at any given time and across the years. Organizational data including inputs, formal assessments, and staffing have been commonly collected over the years as professionals try to gauge whether there is a powerful learning environment for all learners.

Evidence:
- What learners have to work with
- Quality people to guide learners
- Standards that assure learners of a quality education
- Improvement of the organization over time



Sources of data:

INPUTS / OUTPUTS		FORMAL ASSESSMENTS	STAFF: LMS/TS & SUPPORT
Facilities	Use	Performance-based accreditation documents	Size and roles (professional & support)
Staffing	What they do	School improvement efforts	Certification; Endorsements
Collections	Use	District-level initiatives	LMS/TS National Board Certification (NBPTS)
Budgets	Collections; Databases	School library and technology audits	Personal growth plans
Administrative support	Program implementation		School-based performance evaluations
Technology infrastructure	Network use; Reliability		Growth in expertise over time (CE, professional organizations)
Note: LMS = Library media specialist or librarian; TS = Technology Specialist or Coordinator			

Direct and Indirect Measures

To the levels of learner, teaching unit, and organization where evidence is being collected, the second dimension is the type of evidence to be collected. The matrix below introduces the idea that both direct and indirect evidence should be collected.

Direct measures of evidence would be those so close to actual learning that confidence in an impact could be inferred. We have no thermometers to stick in a learner's mouth to gauge actual learning, but direct measures might challenge doubters to prove no impact.

Indirect measures provide evidence that actions set the stage for, provide an environment for, give support to, enable, help, give encouragement to, mark progress toward, or stimulate change that will ultimately impact direct measure results.

	Learner Level	**Teaching Unit Level**	**Organization Level**
Direct Measures	Assessments of various types given to learners showing impact on learning	Measurements of impact on teaching quality and classes engaged in library learning units	Behaviors of administrators and data that show an impact of the library program on the school as a whole
Indirect Measures	Environmental factors that support the individual learner	Support of teachers enabling successful use of the library program	Policies and support at the school and district level that enable a quality library program

Building an Evidence-Based Practice Plan

Use this form to plan data collection in one of the four program areas of the library: Collaboration, Reading, Information Literacy, and Technology. One might try to collect something in each area or zero in on a single area for a period of time. Every box in the template need not have something in it. Neither should all data collected be in a single box. Data from several levels and both dimensions would be ideal.

Program Area: _____

	Learner Level	**Teaching Unit Level**	**Organization Level**
Direct Measures*			
Indirect Measures**			

*Direct measures would be those so close to actual learning that confidence in an impact could be inferred. We have no thermometers to stick in a learner's mouth to gauge actual learning, but direct measures might challenge doubters to prove no impact.

** Indirect measures provide evidence that actions set the stage for, provide an environment for, give support to, enable, help, give encouragement to, mark progress toward or stimulate change that will ultimately impact direct measure results.

Collaboration

Why collaboration? True collaboration between the library media specialist and the teacher consists of the joint planning, teaching, and assessment of a learning experience so that students build both content and process knowledge. In other words, the result sought is that the learner deeply understands the topic of the unit and has developed better learning skills at the same time (process knowledge, information literacy, critical thinking, etc.) Two teachers have joined forces to see that every learner succeeds.

Why is collaboration important? The assumption is that when a unit of instruction is jointly planned and taught in the information-rich and technology-rich environment known as the library, students would learn more than if they had stayed back in their classrooms. Thus, the resources plus the addition of a second teacher (the library media specialist) would be an unbeatable combination in boosting learning and achievement.

And the Research Says. . .

In all the Lance studies, collaborative planning continues to show up as one of the foundation elements of a quality library media program that contributes to achievement.[1]

Essential Element to Measure:

	Learner Level	Teaching Unit Level	Organization Level
Direct Measures*	• Are Two Heads Better Than One? • Locally developed tests, performance or product rubrics	• Are Two Heads Better Than One? • Collaborative Unit Planning Form • Collaborative Unit Evaluation Form	• Impact! – An analysis of collaborative units across the faculty, departments or grade levels
Indirect Measures**	• Memorable Learning Experience	• Collaboration Log Summary • Rubric for Collaborative Teaching Units • Impact! – Individual teacher collaboration reports	• Levels of Collaboration: Teachers and Librarians Work Together • Impact! – An analysis of collaborative units across the faculty, departments or grade levels

* Direct measures would be those so close to actual learning that confidence in an impact could be inferred. We have no thermometers to stick in a learner's mouth to gauge actual learning, but direct measures might challenge doubters to prove no impact.

** Indirect measures provide evidence that actions set the stage for, provide an environment for, give support to, enable, help, give encouragement to, mark progress toward, make change.

[1] See the various Lance studies at: http://davidvl.org under the research tab. Also, see: Lance, Keith Curry and David V. Loertscher. *Powering Achievement*. Hi Willow Research & Publishing. Available from: http://lmcsource.com

Are Two Heads Better Than One?
An Action Research Project

Background: Administrators and teachers may be interested in the value-added benefits accrued when a classroom teacher and the librarian collaborate to plan, implement, and evaluate a learning experience taught together. This proposed action research study could be done every time a collaborative unit happens or just with selected collaborations. The results should be reported to the administrator by the team on a regular basis.

Research Questions: What percent of the learners meet or exceed learning expectations when a classroom teacher and a librarian team teach a unit of instruction? How does that percentage compare with the normal success rate when classroom teachers teach alone?

Method:

Step 1: Before the unit begins, ask the teacher to take a list of students and estimate whether that student usually **Exceeds (E), Meets (M), or Struggles (S)** with learning expectations of a unit. Put this prediction list away.

Step 2: Plan together the objectives of the unit based on what students should know, do, and understand. Be sure that the agenda of both the teacher and the librarian are included. For example, the librarian might want the students to do wide reading on the topic, learn an information literacy skill, and,/or, use technology to enhance learning.

Step 3: Plan the joint assessment for the unit. Be sure that both partner's objectives are assessed and reflected in the final "grade." No matter the assessment given, the teacher and the librarian should be able to judge whether each student struggled, met, or exceeded unit expectations.

Step 4: Team teach the unit together and assess the students jointly.

Step 5: Pull out the teacher's predictions list. Together, rate each student whether they exceeded, met, or struggled with the jointly taught unit.

Step 6: Compare the prediction with the actual result.

_____ # of students who did better than predicted.

_____ # of students who remained about the same as predicted.

_____# of students who performed worse than predicted.

Step 7: Answer the question: Were two heads better than one?

Step 8: Write a few paragraph summary and report it to the principal and report it on: http://davidvl.org under action research, or send your summary to David Loertscher at reader.david@gmail.com. At http://davidvl.org under action research, compare your experience with others who have reported. What do you conclude?

Memorable Learning Experience

To learn if the collaboration between the school library media specialist and the teacher has created an exciting learning experience that takes advantage of the information and technology rich environment of the school ask the learners to rate the lesson. Students exhibit many signs during a learning experience that they are engaged, earning a great deal, having fun, and going beyond the minimum assignments.

Cathy Marriott videotaped fifth grade students discussing a kindergarten "Pick a Pet" unit to learn their impressions of the activity. The video, "We Are Information Literate"[2] compared student engagement in the "pick a pet" project collaboratively planned by the library media specialist and teacher with a "normal" unit taught by an individual teacher. Her figures reported 255% more homework time, and like percentages for before and after schoolwork plus all the participants' time. Such a report must have impressed someone since it along with other like messages supported the passage of a bond issue.

Students in Marriott's video are shown being interviewed as fifth graders. They could easily recall their kindergarten research and could tell all kinds of details about it. In short, it was a memorable learning experience. Engaged students read more, are motivated, love the challenge, and expend much effort. We wish we had a "memorable measuring thermometer." Follow Cathy's example and measure what students remember and how they felt about the learning experience.

At the end of a month or semester, ask students to rate memorable units—the units that engaged and challenged them. Keep and share the successful results of collaboration with your principal and department or grade level chairperson.

[2] Marriott, Cathy. *We Are Information Literate! The Video.* Hi Willow Research and Publishing, 2003.

Teaching Unit Level, Direct Measure

Collaborative Unit Planning Form

Teacher/LMS/TS team: _____
Content area: _____
Unit of Study: _____
Unit planning began (date):_____ Unit ended (date):_____
LMC Use dates: _____ Computer Lab dates: _____

Goals and Objectives / Essential questions of the unit:

Proposed Learning Activities and Products:

State Academic Standards:

21st Century Learner Skills:

- ❑ 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

Integrated Technologies:

Responsibilities: (for each, mark T= Teacher, LMS= Library Media Specialist; TS = Technology Specialist; S = Student; A = All)

How Will We Assess Learning?

What Happened? (List activities as they occur)
Example: mini-lesson on how to judge currency of information (teacher and LMS taught)

Collaborative Unit Evaluation

(to be filled out as a collaborative team)

Unit title: _____
Total time spent by LMS/TS:_____ # Students affected: _____

What worked well in the unit?

Suggestions for improvement:

(Time spent on Info. Lit. Teaching/Technology:_____)
(As a subset of the total time listed above)

How well were targeted state academic standards met?

What 21st Century Skills were learned?:

- ❑ 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

What was the technology impact?

From both the teacher's and library media/technology specialist's viewpoints, was this unit enhanced through collaboration?

☐ Yes ☐ No Why?

Was the unit successful enough to warrant doing it again in the future?

☐ Yes ☐ No Why?

Results of grade or rubrics evaluation of student performance:

Collaboration Log Summary

Time Period Covered_____

Make a summary of the library calendar and librarian's plan book in the table below.

Category[3]	Teacher and Unit Title	Time Taken by both partners	# of Students affected	Collaboration Level (from rubric)

Percentage of units at each collaboration level: (See *Rubric for Collaborative Teaching Plans*)

___Level 1 ___Level 2 ____Level 3 ____Level 4 ____Level 5 ____Level 6 ___Level 7

Patterns Observed:

Proposed Actions:

[3] Group the list by category in some meaningful way such as department, grade level, topic, etc.

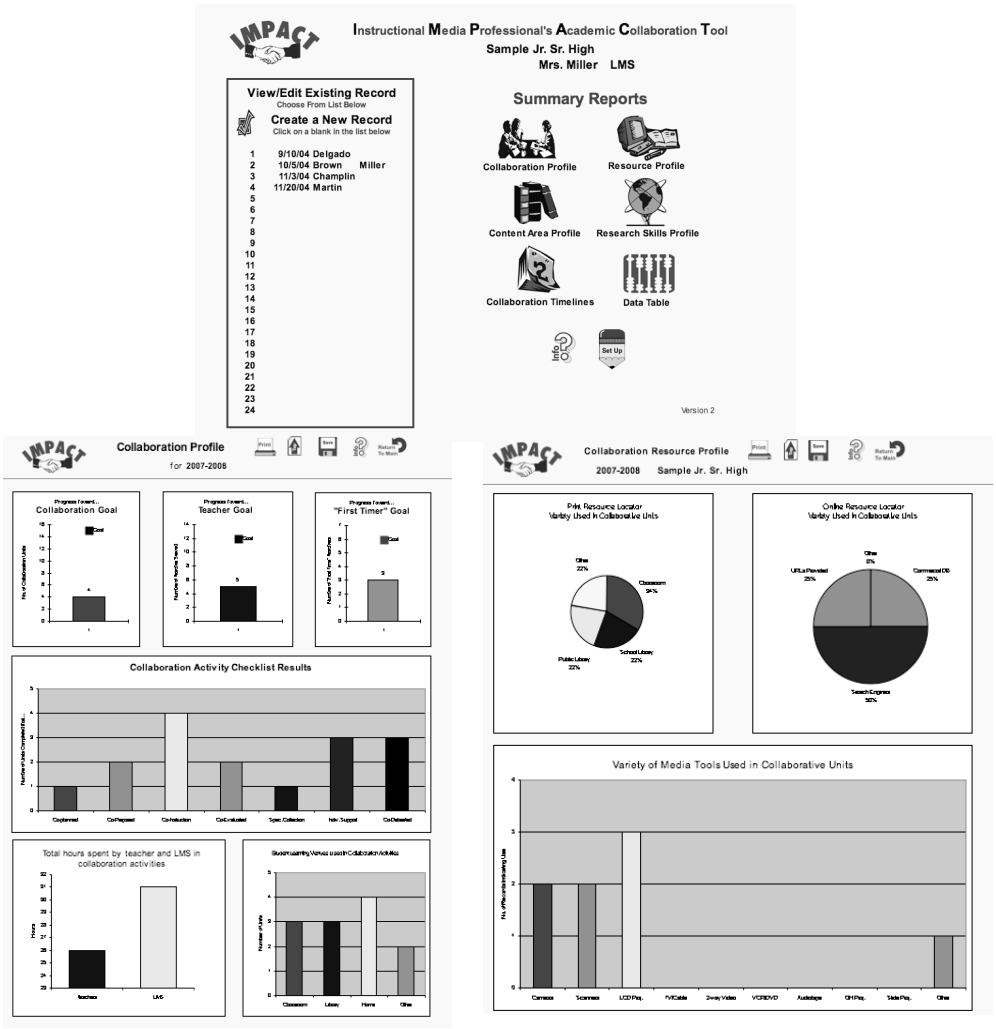
Rubric for Collaborative Teaching Units- Teachers and librarians can use the following rubric to analyze their collaborative unit plans. As a partnership, are you increasing the sophistication level over time?

Level 1	Level 2	Level 3	Level 4	Level 5
No objectives are listed or objectives do not relate to curriculum standards.	Objectives are not clearly defined.	Objectives are clearly defined and relate to curriculum standards	Objectives are clearly defined and are based on both information skills and curriculum standards.	Objectives are clearly defined and are based on information skills, curriculum standards, and needs of learners.
No co-planning between teacher and librarian occurs before the student visit.	Teacher plans unit; librarian may suggest resources.	Teacher plans unit; librarian suggests resources.	Teacher and librarian collaboratively design and facilitate student learning experiences.	Teacher and librarian collaboratively plan, design, facilitate and evaluate student-learning experiences.
Assignments do not require students to use library media center resources.	Librarian gathers LMC resources for students to use (instead of students searching by themselves).	Students are encouraged to use a variety of resources.	Assignments require the use of a variety of appropriate information sources.	Teacher, librarian and learners select appropriate information sources.
Students rely on their own skills to find information.	Information access skills do not seem to be a part of the project.	Information access skills are taught some time before the assignment is given.	Information access skills are taught at the beginning of the unit.	Information access skills are taught within the context of the activities.
Students find answers to knowledge questions.	Students gather information on an assigned topic.	Activities encourage students to research and organize information.	Assignments require students to solve problems or create new meaning.	Assignments require students to solve problems or create new meaning relevant to the learner.
Completed assignments are not evaluated.	Teacher grades the completed assignment.	Teacher evaluates the project and shares findings with librarian.	Teacher and librarian assess the content and process of the completed project in the context of the stated objectives.	Teacher, librarian, and students determine whether the knowledge product produced the intended outcome.

Developed by Elaine Life and Connie Champlin, cchamp@iquest.net, library consultants.

Impact!: Documenting the Library Program for Accountability

Impact![4] is a spreadsheet template for Excel where the library media specialist can track their collaborative units with teachers. Useful while planning, implementing or debriefing collaboratively taught units, the librarian enters data describing the collaboration in a questionnaire form that constitutes a lesson plan record for the teacher and librarian. As more units are completed, the program compiles data from all records and draws detailed graphics summarizing collaborative experiences across the faculty and across the curriculum. The visuals produced constitute evidence to be used by administrators and others seeking to understand the impact of the library on the teaching and learning in the school. Screenshots of the main menu and some of the compiled chart reports are shown below:



Impact! is available for purchase through LMC Source: http://www.lmcsource.com.

[4] Miller, Nancy A.S. *Impact!: Documenting the LMC Program for Accountability*. Hi Willow Research & Publishing, c2004.

Levels of Collaboration: Teachers and Librarians Work Together[5]

To assure that students will acquire the needed information literacy skills to be life-long users of information, teachers must plan units of study, in collaboration with the library media specialist, that incorporate the learning, application and repeated practice of information skills. Involvement of the library media specialist as a partner in preplanning is a key element. Library media specialists can assist in identification of the information skills to be covered and resources needed and become an active teaching partner in the process.

Below is a taxonomy that illustrates the various levels of collaborative planning. The extent to which you should and will involve the library media specialist and the library resources will depend upon the real needs of the unit to be delivered. But, if you always find yourself at a 1-4 level, you need to examine how much students are learning about accessing information resources and becoming independent users of information. Whenever you want students to acquire and use information skills as part of the unit, you should be operating at levels 5-7.

1. **Self-Contained Teaching:** The Library Media is bypassed entirely. Teachers plan and carry out units independently, not using library media resources or making connections with the library media specialist.
2. **Teaching with a Borrowed Collection:** Teachers plan units and then check out all resources from the library, contacting the library media specialist only as a resource provider, to pull materials and check them out.
3. **Using the Library Media Specialist as Enrichment:** Teachers plan units and then come to the library media specialist to tell a story or do a book talk or allow time for the class to come into the center to get resources but no preplanning takes place and no integration of information skills is built into the unit as an integral part.
4. **Utilizing the Library Media Specialist Out of Context:** Instruction and learning are isolated and disconnected, not integral to other learning that is classroom based. Teachers plan an objective (good behavior or drug prevention) and then ask the library media specialist to play an active role in delivery of instruction. The information that the library media specialist is asked to cover is not related to students becoming better information users as part of a classroom assignment and there is no collaborative planning.
5. **Using Library Resources as Part of a Unit:** Teachers plan units that rely on the use of library resources and require that students use these resources to fulfill the unit objectives. The library media specialist is not involved in preplanning and is placed in a reactive role.
6. **Collaborative Planning for Instruction:** Teachers and the library media specialist meet to preplan units of study. They identify information skills and other objectives that will be covered during the unit as well as resources that will be needed and used. Together they determine the responsibilities of the classroom teacher, the library media specialist and the students. They jointly plan the activities to be carried out and determine how the unit will be evaluated.
7. **Collaborative Planning for Curriculum Development:** Teachers and library media specialists work together to determine implementation of curriculum changes and team together to make decisions for acquiring needed resources to meet the new demands for the library. They work as a team to plan strategies, activities and acquire resources that will facilitate implementation.

[5] Adapted from: Loertscher, David V. *Taxonomies of the School Library Media Program*. Hi Willow Research & Publishing, 2000.

Collaboration: Additional Resources

Available from LMCSource at http://lmcsource.com:

Loertscher, David V. Carol Koechlin, and Sandi Zwaan. ***Beyond Bird Units!: Thinking and Understanding in Information-Rich and Technology-Rich Environments***. Hi Willow Research and Publishing; 2007. — A companion book to *Ban Those Bird Units*!, this new title includes three new models and all new classroom examples.

Loertscher, David V. ***Taxonomies of the School Library Media Program*, 2nd ed**. Hi Willow Research & Publishing, 2000. — A complete revision of Loertscher's most popular guide to creating and managing a library with the intent of making a difference in academic achievement.

Miller, Nancy A.S. ***Impact! Documenting the LMC Program for Accountability***. Hi Willow Research & Publishing, 2004. — Use this template for Microsoft Excel to track the contribution of the library media program in three essential areas: collaborative planning, information literacy, and learning links to state standards. You enter the data into the template and the program takes care of the rest. With just one click, this program will transform that information into charts and diagrams that will show you and your administrator where the emphasis of the library media program lies.

Other Resources:

Collaboration Planning Resources: An online collection of collaboration resources developed by building and district level librarians can be found at www.Indianalearns.org.

Logan, Debra Kay**. *Information Skills Toolkit: Collaborative Integrated Instruction for the Middle Grades***. Linworth Publishing Books, 1999. — A toolkit designed to integrate information skills instruction with content area curriculum. Lessons are grouped by broad curricular areas and themes, with a consistent format for each use.

Information Literacy

Why information literacy? Librarians have interpreted information literacy as the research process linked to learners doing assignments in an information-rich environment. Numerous information literacy models such as the Big 6 are used to teach learners a systematic process of doing a research project ending in a product. Beyond just a research model, information literacy encompasses the ideas of critical thinking and creative thinking that are part of everyday living and decision-making. Another broader definition is that information literacy is learning how to learn.

Why is information literacy important? We are now interested in providing each student with a world-class education to compete worldwide. Because global industries, companies, and organizations function in very information-rich environments, our learners need to learn how to work in quite different ways than previous generations did. And, with the exponential growth of the Internet and the thousands of voices trying to get every kid and teen's attention, new skills for learning, trusting, and creating are in order.

And the Research Says. . .

When Loertscher and Woolls published their major review of the research on information literacy in 2002,[1] they looked at well over 250 studies and summarized that research in each is covered by the various information literacy models. In no case did they find that students automatically learn the various steps of research without a human mentor to guide them. For example, they need guidance in formulating questions, in finding and locating quality information, in reading that information with understanding, in extracting useful information, in analyzing and synthesizing information, in producing some kind of product, and in reflecting on the process of doing research.

[1] Loertscher, David V. and Blanche Woolls. *Information Literacy: A Review of the Research* 2nd ed. Hi Willow Research & Publishing, 2002. Available from http://lmcsource.com.

Essential Element to Measure:

	Learner Level	Teaching Unit Level	Organization Level
Direct Measures*	• Simple Class Reflection After Research • What Information Resources Did I Use? • My Research Log • Information Skills Rubric • Sample Assessment of a Student's Information Literacy Process • Action Research Project Reflection • Assessment of Information Literacy	• What Information Resources Did I Use? • My Research Log • Action Research Project Reflection • Local Assessment of Information Skills • Assessment of Information Literacy	• Action Research Project Reflection • Local Assessment of Information Skills • Assessment of Information Literacy
Indirect Measures**	• Action Research Project Reflection • Assessment of Information Literacy	• Action Research Project Reflection • Impact! (*see pg. 8*): Individual teaching unit record charts for information skills emphasized. • Assessment of Information Literacy	• Action Research Project Reflection • Local Assessment of Information Skills • Impact! (*see pg. 8*): Compiled summary report of research skills. • Assessment of Information Literacy

* Direct measures would be those so close to actual learning that confidence in an impact could be inferred. We have no thermometers to stick in a learner's mouth to gauge actual learning, but direct measures might challenge doubters to prove no impact.

** Indirect measures provide evidence that actions set the stage for, provide an environment for, give support to, enable, help, give encouragement to, mark progress toward, make change.

Simple Class Reflection After Research

Goal: To quickly assess the results of a teaching/learning session in the library.

Method: At the end of every teaching session in the library, take the last five minutes to ask some important questions. This could be a class discussion, a quick survey, or a quick write.

Here are some questions to consider asking. Add your favorites to the list:

1. How many felt successful today? Why or why not? Discuss.
2. What tricks helped you to find the information you needed quickly?
3. How did you know when you found high quality information?
4. When you get stuck in the research process what should you do next?
5. Why isn't Google always the answer?
6. What did we do today that helped you summarize the information you found?
7. How well did the computer/software work today?
8. Did working in teams help to get more done?
9. What database gave you the best results?
10. What would help us all get more done in the time we have in the library?
11. What tools do we have at school that you need at home?
12. What tools do you use at home that we should have at school?
13. If you were doing this project again, how would you do it better?
14. How can we as teacher and librarian help you succeed better?
15. How many of you feel that you can add a picture to a PowerPoint slide?
16. Let's name three ways to search Google more effectively.

Your favorite reflection questions:

What Information Sources Did I Use?

Question: The librarian and teacher have spent considerable time teaching learners what quality information is, where to find it, how to abstract it, and how to include it in a research project. The questions are: Did students access and use the quality resources we taught them to use? Did these information resources end up in their final products?

Method: The teacher and the librarian want to have a meaningful reflection with the students about quality information used in the current assignment. And, they want students to be able to transfer this concept of quality information to upcoming assignments. They decide that students are more likely to open up and discuss the information sources they used if all the pressure of grades is taken away. Thus, after the research papers or other products that have required footnotes have been graded, students bring their papers to the library. The teacher and the librarian conduct the following activity:

1. Students open their projects to their footnote pages so that they have a list of all the information sources they used in the project in front of them.
2. Learners are given a marker or stickers.
3. The librarian has placed the following matrix on the board.
4. For each footnote or source used, the learner puts a mark or a sticky note on the matrix.

Sources used	Google	Library OPAC	Statewide Databases	Print Reference Collection	Other
Student 1					
Student 2					
Student 3					
Student 4					
Student 5					
Etc.					

5. After everyone has posted, the class looks at the matrix and discusses the patterns they see with the teacher and the librarian.

    a. What do we use?
    b. Why do we use those sources?
    c. Why?
    d. How could we do better next time?

My Research Log

Oft times, teachers assign a report, a research paper, or any other kind of product and ask only that the product be handed in for grading. This assumes that the knowledge of the topic itself is the paramount focus of the unit.

We encourage the addition of one more document to be passed in by every student with the finished product – the Research Log. This log asks the students to document the process by which the product was created. It provides many clues for both teacher and librarian about the sophistication level of the student and over time, provides a systematic documentation of the learner's information literacy skill level.

What should students log about the process they used to do their research and create the product? We have included a sample log on the following page, but think that each school should create its own because details are different.

Our form contains:

- The student's name and title of the project.
- Directions
- Space to log what the student did in the order accomplished.
- A picture of any information literacy model the student was supposed to use. We put that right on the log sheet to remind the students of the steps we taught.
- A box for the student to self-assess how well they followed some systematic process.
- And, a space for the student to draw the information literacy model they used. Why? We think that students might well follow our model, but as they get more sophisticated, they develop a model of their own. Forcing them to draw their own model requires them to think about how they do research and how they do it in a systematic fashion. What we might discover is that the student draws the research process as a very messy process, and their written steps might indicate this messiness. This is probably true of most adults as well as children or teens because research is a messy and changing process for all of us.

What do we do with the form? We recommend that there be a grade determined for the product and a grade determined for the process page. Both the teacher and the librarian can share the assessment of both pieces. For a total grade, the product itself might receive 90 points and the process sheet, 10 points. This would then total 100 points for the entire project.

Another use of the process forms is to allow the students to see their own progress over time. Let us suppose that a teacher assigns three research projects over a school year. After each product and log is assessed, collect the process logs and file them. At the end of the third project, pass out the research logs of all three projects to the students who put them in order on their desks. Now ask them to do a quick write: "Am I becoming a better researcher?" Then as teacher and librarian, conduct a discussion about the research process and how we can all become better at learning more in less time.

Learner Level, Direct Measure

My Research Log

My name: _____

Assignment title: _____

(Make a list/log of what you did first, next, next, etc. Include comments about problems you had.)

Self-Assessment: (Am I an organized investigator?. . .Am I making improvement?)

The class used this research model:

Savvy 7

- ❑ What is the question?
- ❑ What resources do I use?
- ❑ How do I find the information?
- ❑ How do I gather the information?
- ❑ Which information do I use?
- ❑ How do I share what I learned?
- ❑ How do I evaluate my work?

The research model I used:

Information Skills Rubric
Possible Factors to Assess: Process / Product

Learners can be evaluated at any stage of the information literacy model being used. For example, they may be evaluated in their skill at finding relevant information using a search engine or searching tool in a statewide database. When an entire model such as the Big 6 is used, rubrics can be set up at each one of the six elements to assess student success at that level. In other learning units, it does not make sense to teach the entire model. In this case, a single skill will be taught that the learners need to know to accomplish the assignment at hand. For example, students have read, viewed, or listened to a wide variety of information sources and they need to know how to "synthesize" what they have used and the notes they have taken. The librarian teaches the skill of synthesis and assesses the learners on the syntheses they complete.

Use the items below to construct a rubric for your students at the appropriate grade and sophistication level. At the end are statements your can use to assess the information literacy program itself.

- **Questioning**
  - ❑ Recognizes the need for information.
  - ❑ Formulates questions based on information needs.
  - ❑ Understands that great questions have often been the basis for advancement in many fields.
  - ❑ Understands the difference between a good and a poor question.
  - ❑ Predicts possible answers to the question formulated.
  - ❑ Revises questions as research proceeds.
  - ❑ Understands that answers often lead to new questions.

- **Finding and Sorting**
  - **Prelude**
    - ❑ Recognizes that accurate and comprehensive information is the basis for intelligent decision-making.
  - **Finding and Searching**
    - ❑ Identifies a variety of potential sources of information.
    - ❑ Develops and uses successful strategies for locating information.
    - ❑ Accesses information efficiently and effectively.
    - ❑ Seeks information from diverse sources, contexts, disciplines, and cultures.
  - **Sorting**
    - ❑ Evaluates information critically and competently.
    - ❑ Determines accuracy, relevance, and comprehensiveness.
    - ❑ Selects information appropriate to the problem or question at hand.
    - ❑ Seeks information related to various dimensions of personal well being, such as career interests, community involvement, health matters, and recreational pursuits.
    - ❑ Pursues information related to personal interests.
    - ❑ Identifies inaccurate and misleading information.

- **Consumes and Absorbs (reading, viewing, and listening)**
  - ❑ Appreciates literature and other creative expressions of information.
  - ❑ Is a competent and self-motivated reader.
  - ❑ Understands skimming and scanning through text structure.
  - ❑ Can pick out the main ideas from any form of media (text, video, lecture, digital) while reading, viewing, or listening.
  - ❑ Can read and study carefully to understand challenging text and ideas.
  - ❑ Can take notes of important ideas while reading, viewing, or listening.

- **Thinks and Creates (analysis)**
  - ❑ Distinguishes among fact, point of view, and opinion.
  - ❑ Identifies inaccurate and misleading information.
  - ❑ Applies information in critical thinking and problem solving.
  - ❑ Organizes information for practical application (charts, graphs, concept mapping, timelines)
  - ❑ Can sort, compare, classify, and identify patterns and trends.
  - ❑ Recognizes cause and effect or trends.
  - ❑ Derives meaning from information presented creatively in a variety of formats.
  - ❑ Respects others' ideas and backgrounds and acknowledges their contribution.
  - ❑ Thinks outside the box.

- **Summarizes and Concludes (synthesis and decision making)**
  - ❑ Integrates new information into one's own knowledge.
  - ❑ Experiences the "Ah Ha!" of learning when pieces of the puzzle come together.
  - ❑ Forms a point of view, opinion, conclusion, or supportable argument based on solid evidence.
  - ❑ Makes decisions or takes action based on the best information available.

- **Communicates**
  - ❑ Uses information accurately and creatively.
  - ❑ Designs, develops and evaluates information products and solutions related to personal interests.
  - ❑ Develops creative products in a variety of formats.
  - ❑ Produces and communicates information and ideas in appropriate formats.
  - ❑ Shares knowledge with others.
  - ❑ Acknowledges others' contributions.
  - ❑ Respects intellectual property rights.

- **Reflects on Process and Product**
  - ❑ Strives for excellence in information seeking and knowledge generation.
  - ❑ Assesses the quality of the process and products of personal information seeking.
  - ❑ Devises strategies for revising, improving, and updating self-generated knowledge.

- **Throughout:**
  - **Group work**
    - ❑ Participates effectively in groups to pursue and generate information.
    - ❑ Collaborates with others, both in person and through technologies, to identify information problems and to seek their solutions.
    - ❑ Collaborates with others, both in person and through technologies, to design, develop, and evaluate information products and solutions.
  - **Attitudes and behaviors**
    - ❑ Recognizes the importance of information to a democratic society.
    - ❑ Respects the principle of equitable access to information.
    - ❑ Practices ethical behavior in regard to information and information technology.
    - ❑ Respects the principles of intellectual freedom.
    - ❑ Uses information technology responsibly.
    - ❑ Can follow the guidelines of an information literacy model to conduct a research project.
    - ❑ Can develop control over self-learning by creating a personal information literacy model.
    - ❑

Note: Check out the recent AASL *Standards for the 21st-Century Learner* (released October 2007) for other factors that might be assessed.

Sample Assessment of a Student's Information Literacy Progress

Teaching information literacy is a joint responsibility of teacher and library media specialist and is rarely done except as it applies to an information skill to meet a state standard. Here is a cumulative record of a learner's progress over time. Data can be taken from the research logs kept by individual students.

CARMEL CLAY SCHOOLS
Literacy Standards ***Student Learning Checklist (pilot; excerpt)***
Grade 5

Student_____ Teacher _____

Exemplary—A student who is performing at an exemplary level is highly motivated and engaged and his/her independent work exceeds grade level expectations.
Proficient—A student who is performing at a proficient level demonstrates consistency in understanding and/or application of grade level standards.
Developing—A student who is performing at a developing level demonstrates inconsistency in understanding and/or application of grade level standards.
Beginning—A student who is performing at a beginning level does not yet appear to understand and/or apply grade level standards.

Standard 8 **Information Literacy**	**October**	**January**	**May**
Concepts about Media [*observations, checklists, individual research log]*			
♦ Chose appropriate print, media, and electronic materials to find information.	B	D	P
♦ Use navigational tools such as electronic card catalog, Internet browsers, and hypermedia.	B	D	D
Reading [*personal reading log, observations, checklists, Accelerated Reader and Reading Counts]*			
♦ Read books for enjoyment and information.	P	P	E
♦ Check out books from the media center on a regular basis.			E
♦ Use a dictionary and a thesaurus.		B	D
Information [*reference checklist, rubrics]*			
♦ Choose/recommend favorite books and authors.			D
♦ Find information by using a variety of resources such as, encyclopedias, district web pages, local libraries, community resources, local experts, and interviews.		B	B
♦ Check for information from at least two sources.			
♦ Evaluate search strategy and adopt useful parts of strategy.			B
♦ Correctly cite source(s) of information.			B

Action Research Project
Reflection: Information Literacy

If a librarian is attempting to integrate information literacy into a teacher's various learning units as an experiment over time, then it is important to do a self-reflection of what really happened in order to make a plan for integration of information literacy across the faculty. After an "experimental" attempt at collaboration/integration of information literacy, use the following question matrix to assess what really happened with that teacher. If you don't like our questions, create your own in the blank form provided.

	Learner Level	Teaching Unit Level	Organization Level
Direct Measures*	▪ Integrate information literacy into three research projects taught collaboratively using increasingly complex skills with each succeeding unit. ▪ Use individual assessments of each stage of the research process. ▪ Assess the level of info lit. skills learning using rubric items integrated into the teacher's unit rubric. ▪ Assess the level of each learner in each of the test research units. Who succeeded? Why? Who failed? Why? Follow-up interviews and reflections by individuals may help. ▪ Are there any types of individuals who fail? What might be the causes? What could be changed in units two and three to increase an individual's chance at success?	▪ Document the time spent with the teacher in teaching the principles of information literacy. ▪ Document and reflect together on the process of integrating information literacy into instruction. How did we approach this integration? What changes in instructional approach had to be made? ▪ Document the change in instruction when the rubric contained both content and information literacy items. ▪ What is the teacher's perception of the impact of teaching students process before and after viewing assessment results at the learner level. ▪ Would this teacher be willing to continue working on both process and content after our experiment? Why or why not?	▪ How were administrators included in this experiment? ▪ What evidence is there that administrators came to understand what information literacy was? ▪ What support has been forthcoming from administrators during and after the experiment?
Indirect Measures**	▪ What support did the teacher and I have to give to those individual students who were struggling? ▪ Did technology "rise to the occasion" to support each individual?	▪ How did we modify the schedule of the library to accommodate this experiment? ▪ What changes in the library/classroom facilities did we make to accommodate this experiment? ▪ What arrangements were made for the extra time it took to handle this experiment both for the library staff and for the teacher?	▪ What changes would have to be made in the entire school schedule if this experiment were to be expanded to the faculty as a whole? ▪ How would the structure and size of the library staff have to be altered to handle a larger number of experiments? ▪ Are there any budget implications other than staffing that would need to be addressed? Professional development opportunities?

* Direct measures would be those so close to actual learning that confidence in an impact could be inferred. We have no thermometers to stick in a learner's mouth to gauge actual learning, but direct measures might challenge doubters to prove no impact.

** Indirect measures provide evidence that actions set the stage for, provide an environment for, give support to, enable, help, give encouragement to, mark progress toward, make change in direct measures over time the probable stimulus.

Conclusions and plan of action:

Action Research Project Reflection

Detail, in the appropriate boxes, possible questions to be used in your assessment of an experiment with one teacher over time.

Goal: _____

	Learner Level	Teaching Unit Level	Organization Level
Direct Measures*			
Indirect Measures**			

* Direct measures would be those so close to actual learning that confidence in an impact could be inferred. We have no thermometers to stick in a learner's mouth to gauge actual learning, but direct measures might challenge doubters to prove no impact.

** Indirect measures provide evidence that actions set the stage for, provide an environment for, give support to, enable, help, give encouragement to, mark progress toward, make change in direct measures over time the probable stimulus.

Conclusions and plan of action:

Local Assessment of Information Skills

Any of the measures you use to measure individual student mastery of information literacy skills can be tallied for class groups. Thus, you might want to know:

- What percentage of the students in a class mastered the task at hand after being taught?
- What percentage of the class can pass a pre-test of information literacy skills previously taught in preparation for the teaching of a new skill?
- What percentage of students followed an information literacy model as a guide during a research project?
- What percentage of learners logged their way through a research project and drew their own information literacy model?
- What percentage of the faculty could be categorized as successful integrators of information literacy into learning?
- How many units of instruction during a semester that contained information literacy could be said to have "contributed to learning?"
- Add your own questions below.

Assessment of Information Literacy

Teachers and learners, believing that "content" is paramount, may not always be willing to invest time and effort to integrate information literacy into lessons. However, analysis of state standards and standardized tests reveals that information literacy is indeed a key part of the total expectation for learners. Collecting, reviewing, and reporting data at the organizational level, the teaching unit level and the learner level will help assess the impact information literacy is ready to make toward total school improvement.

Level of Measure	Factor	Sources of Data
Information literacy at the Organization Level (District and School)	The state of information literacy in the school and district.	❑ Evidence that district and school library media professionals have plans in place to deliver information literacy as a part of the state standards. ❑ Evidence that professional development opportunities exist to assist teachers and library media specialists to integrate information literacy into the curriculum. ❑ Evidence that scheduling, planning time, and other organizational factors allow information skills to be a regular part of instruction. ❑ Evidence that state information skills correlation documents have been considered in local information literacy plans.
Information literacy at the Teaching Unit Level (class interaction and use)	The success that the class and the teacher experience during a unit of instruction both in the classroom and the LMC when information literacy is integrated into the learning experience.	❑ The percent of students who followed an information literacy model as a guide during a research project. ❑ The percent of learners who logged their way through a research project and drew their own information literacy model ❑ The percent of the faculty that could be categorized as successful integrators of information literacy into learning. ❑ The number and percent of time during a sample month that information skills could be said to have "contributed to learning" during collaborative activities in the LMC
Information literacy at the Learner Level (as individuals)	Individual progress by each learner as information literacy becomes a trusted strategy in each learner's education.	❑ Rubric score that an individual used information skills to enhance a project after being taught its use. ❑ Rubric score that content knowledge was enhanced through use of information skills. ❑ Rubric score that the local standards for technology literacy and information literacy were met.

Information Literacy: Additional Resources

Available from LMCSource at http://lmcsource.com:

Loertscher, David V. and Blanche Woolls. ***Information Literacy: A Review of the Research*** 2nd ed. Hi Willow Research & Publishing, 2002. Available from http://lmcsource.com — The authors not only review the research but offer numerous suggestions for translating that research into practice as school librarians educating young people.

Koechlin, Carol and Sandi Zwaan. ***Build Your Own Information Literate School***. Hi Willow Research & Publishing, 2003. Available from http://lmcsource.com — The authors not only suggest tips for teaching each skill to novices, apprentices, and InfoStars (novice to advanced), they give examples from various curricular areas so that the guide can be used across the curriculum and across grade levels. Their coverage not only covers traditional finding, locating and sorting information, but the authors tackle analysis and synthesis of information as well. Many useful worksheets provide ideas for teaching.

Other Resources:

Standards for the 21st Century Learner. American Association of School Librarians, 2007 Check the web site to learn about the recently developed literacy standards for all learners.
http://www.ala.org/ala/aasl/aaslproftools/learningstandards/standards.cfm

Harada, Violet and Joan Yoshida. ***Assessing Learning: Librarians and Teachers as Partners***. Libraries Unlimited, 2005. — Culling from their own 30-year careers as library practitioners, university instructors, and workshop presenters the authors present doable, practical methods for the K-12 librarian to be involved in assessing student learning.

iSkills™ assessment: ETS is developing an information literacy test that theoretically could be used to gauge what learners know about information literacy in general. More importantly, library media specialists should add into a collaborative unit of instruction the information literacy skill students will need and an appropriate assessment for that particular skill. For more information about this test see www.ets.org

Reading

Why reading? Reading is the number one contributor to achievement. The current reading skill craze of NCLB concentrates of reading skill and fluency, but lacks a more global perspective of encouraging learners to develop a reading habit that they will enjoy for a lifetime.

Why is reading important? Reading is also the main way we engage with information on any topic of interest. Though sometimes learners don't readily admit to being "readers," this may be more about their perception to be a reader has to do only with reading for pleasure (like reading best seller novels.) Others struggle with their reading skills, making the task difficult. An important challenge is to help learners begin to view themselves as readers perhaps by broadening their definition of reading to include books, magazines, product labels, online content and more. We can then work to provide ample reading opportunities to develop good reading skills and habits.

And the Research Says. . .

Krashen[1] notes that learners who read a lot score high. In other words, amount counts. Wide reading also improves spelling, vocabulary, comprehension, grammar, and writing style. Reading fiction will contribute to narrative understanding and writing. Reading lots of nonfiction adds to the skill of reading expository text and builds general knowledge.

Essential Element to Measure:

	Learner Level	Teaching Unit Level	Organization Level
Direct Measures*	• Ask Who Likes to Read • My Reading Log • My Reading Log 2 • Independent Reading Rubric • Reading Evidence Plan	• Book Bags and Curiosity Kits • My Knowville Log • Reading Evidence Plan	• Ask Who Likes to Read • Reading Evidence Plan • Your School Library Circulation Statistics (compared over time, by grade level, correlated with test score gains/losses, etc.)
Indirect Measures**	• Reading Question Bank • Reading Evidence Plan • School library circulation statistics (for individual students)	• Doing a Classroom Print-Rich Environment Audit. • Starter Sample of LMC/Language Arts Program Links • Reading Evidence Plan	• Supporting Reading in the School • Checklist on Support of Reading from the Library • Assessment of the Library Impact on Reading • Signs of Danger… • My Library's Impact… • Starter Sample of LMC… • Linking Eng/LA Standards… • Reading Evidence Plan

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** Indirect measures provide evidence that actions set the stage for, provide an environment for, give support to, enable, help, give encouragement to, mark progress toward, make change.

[1] Krashen, Stephen. *The Power of Reading*. 2nd ed. Libraries Unlimited, 2005.

Ask Who Likes to Read

Avid readers score high!

Kids who read, succeed!

Is this a pipe dream in the day of television, video games, and a hundred other distractions? Perhaps, but achievement scores and reading scores are so highly correlated that they are interchangeable in many research studies. The simple fact is that students who don't like to read don't. And while there are readers who are alliterate (they can read but don't), the great preponderance of readers who read well enjoy it.

How can we gauge who is an avid reader? Probably just ask them.

The question bank below is a simple one. It can be asked orally or in a survey. It can be asked by almost anyone during a lunchroom test. It can be asked in the halls, in the library, on the street, or even on an airplane. Surprisingly, parents worry about this as much as anyone but often don't know what to do if their child is not reading regularly.

Be brave enough to ask. It is a **direct measure** at the **learner level**. Collected for a classroom, it is a **direct measure** at the **teaching unit level** and the percentage of students who claim to enjoy reading is a measure at the **organization level** of the health of the reading community.

Ask regularly. Ask before a reading initiative and at the conclusion of an initiative. Ask at the beginning of the school year. Ask in the middle. Ask at the end. Most of the time, students will tell the truth.

Starter questions:

- Do you enjoy reading?
- What's your favorite book?
- Could you recommend a good book to your friend?
- Who is your favorite author?
- Have you read the *Harry Potter* series?
- Did you read the book before or after you saw the movie?
- What's the best book you ever read?
- What book are you reading now? Would you recommend it?
- What did you think of the Newbery winner, (insert title), this year?

My Reading Log for _____

(topic of research/assignment/personal exploration)

1. Things I scanned (quick look/read)
- ❑ Books
- ❑ Magazines
- ❑ Web sites
- ❑ Online databases
- ❑ Video/multimedia sources

What types of reading helped introduce me to the topic?

Total time I spent: _____

2. "Easy reads" that helped me understand more about the topic (could list fiction or nonfiction)

Rate each Item:

1 Not worth the time I spent

2 Somewhat helpful

3 Quite helpful

4 Everyone should read this; it's that good

3. Items I had to read slowly and carefully because they were important or assigned.

Rate each Item:

1 Not worth the time I spent

2 Somewhat helpful

3 Quite helpful

4 Everyone should read this; it's that good

Note to teacher/librarian: During a topical unit, ask students to keep this topical log of what they read on the topic at hand. Give them points for the amount read as part of their overall grade for the unit.

My Reading Log 2

My name: _____

Instructions: You have been asked to read as widely on the topic as you can. This sheet is your reading log to list everything you have read on the topic. Your reading can include books, magazine articles, Internet sites, newspapers, or even multimedia such as audio books or videos on the topic. Here is a sample of what your reading log might look like:

Topic (assigned/selected): _____

Name, Title, and/or Author of What I Read	**Type of Reading Material** (book, article, video, newspaper, URL)	**Was it helpful?** (notes)
Example: Tornadoes by Jim Schmidt	*Magazine article – 5 pages*	*Somewhat helpful; I already knew most of this.*

For this assignment, I wish I could have found. . .

Independent Reading Rubric

By Linda L. Cornwell[2]

An essential key to becoming a proficient reader is independent reading practice. Research suggests that it is the volume of reading that students do that enhances their reading achievement. The following rubric is divided into four major categories. Use it to assess specific readers targeted for help.

MATERIALS SELECTION

Developing	Progressing	Proficient
▪ Rarely selects materials at his or her independent reading level.	▪ Frequently selects materials at his or her independent reading level.	▪ Consistently selects materials at his or her independent reading level.
▪ Limits reading choices to a narrow range of topics or a single genre.	▪ Reads beyond favorite topics, genres, and authors.	▪ Reads a wide variety of genres, authors, and topics.
▪ Often has difficulty in selecting appropriate independent reading materials without assistance.	▪ Occasionally needs assistance in finding appropriate independent reading materials.	▪ Finds appropriate independent reading materials without assistance.

ENGAGEMENT/ATTITUDES

Developing	Progressing	Proficient
▪ Often complains about reading and fails to exhibit pleasure in independent reading.	▪ Generally exhibits a positive attitude toward independent reading.	▪ Frequently expresses pleasure regarding independent reading.
▪ Does not exhibit confidence as a reader.	▪ Generally exhibits confidence as a reader.	▪ Consistently exhibits confidence as a reader and sees himself/herself as a reader.
▪ Fails to set reading goals and reads a minimal amount during the allotted time.	▪ Sets realistic reading goals and usually achieves those goals during the allotted time.	▪ Sets high reading goals and reads the maximum amount during the allotted time.
▪ Rarely finishes the material chosen for independent reading.	▪ Finishes most selections chosen for independent reading.	▪ Rarely abandons an independent reading selection before finishing it.

READING BEHAVIORS

Developing	Progressing	Proficient
▪ Seldom has material available and ready to read.	▪ Generally has material available and ready to read.	▪ Consistently has material available and ready to read.
▪ Is unable to sustain focus or read without interruption for the allotted time.	▪ Usually sustains focus and reads without interruption for the allotted time.	▪ Reads continuously without interruption for the allotted time.
▪ Continuously seeks peer or teacher assistance in reading the material.	▪ Self-corrects before seeking peer or teacher assistance and requires a minimum amount of help from others in reading the material.	▪ Rarely requires peer or teacher assistance in reading the material.
▪ Uses reading time inappropriately: disrupts others, daydreams, doodles, wanders about the room, doesn't read, etc.	▪ Generally uses reading time appropriately.	▪ Consistently uses reading time appropriately.

ACCOUNTABILITY

Developing	Progressing	Proficient
▪ Rarely completes the reading log after independent reading.	▪ Generally completes the reading log after independent reading.	▪ Consistently and accurately completes the reading log after independent reading.
▪ Rarely reflects upon and/or shares thoughts about what he or she has read.	▪ Generally reflects upon and shares thoughts about what he or she has read.	▪ Consistently reflects upon, shares thoughts about what he or she has read and makes connections to self and others.
▪ Rarely recommends reading materials to others.	▪ Frequently recommends reading materials to others when asked.	▪ Voluntarily and continuously recommends reading materials to others.

[2] Originally printed in *NetWords*, Spring, 2002, p. 7 (Middle Grades Reading Network); revised by the author, Oct., 2002.

Reading Question Bank

Use the following question bank to develop questionnaires for students. A few questions are better than many.

At Home

- How many books would you say are available in your home for you to read?
- How many of these are books from the school or public library?

From the Library

- Do you check out all the books you want from the school library?
- How often do you go to the school library to check out books?
- Where do you find materials you want to read in languages other than English?
- Does the school library have a wide variety of books you want to read at your reading level?
- For which topics does the school library have a lot of books? Very few?
- What do you wish the school library had more of?
- Do you find new books that beg for your attention?
- If you must read more about a subject you are studying in the classroom, does the school library usually have several choices for you?

In the Classroom

- How many books are in your classroom library?
- Do the books in the classroom library change often enough that there is usually something new to read?
- Do you take home books from the classroom library?

From the Community

- Do you check out all the books you want from the public library?
- How often do you go to the public library to check out books?

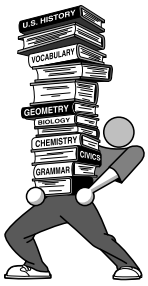
Over Digital Networks

- Does the school library supply digital books you can read on your computer, laptop, or PDA?
- Do you read the digital books in preference to print copies?

Sample questionnaire using question variants:

- How many items can you check out from the school library at a time? (None, one, two, three, all I want)
- How many items can you check out from your classroom library at a time? (none, one, two, three, all I want) (new paragraph follows—some new text)
- How many items can you check out from the public library at a time? (none, one, two, three, all I want)
- How many books do you have at your bedside to read now? (none, a few, a lot)
- Do you have a bed lamp? (yes, no)
- How often do you read yourself to sleep? (never, sometimes, almost every night)
- At home, do you have a comfortable place to read? (yes, no)
- At home, do you have a safe place to store the books you check out from libraries? (yes, no)
- Can you check out all the books you want from the library as long as you are responsible? (Yes, no)
- Do you always seem to have something you'd like to read close by? (yes, no)
- During summers and vacation periods, can you check out a lot of books to read from the school library? (yes, no)

Book Bags and Curiosity Kits: An Idea for the Early Grades

Goal:		Result:
Each child from kindergarten through 2nd grade reads **500**+ books per year.		Every reader will read at or above grade level and have a reading habit.

Try Book Bags. Each classroom acquires enough canvas book bags (either from commercial sources or by making them) for each child in the classroom, plus a few extras. Each book bag is numbered and can be decorated. Once a month, the class goes to the library, where the children help select the books for the book bags. Into each book bag goes a book that children can "read for themselves" (a wordless picture book, an alphabet book, books with a few words, highly illustrated books, etc.) and one book that can be read to the child by an older sibling, parent, friend, or caregiver (a good read-aloud picture book, a folktale, a nonfiction animal book, etc.). Back in the classroom, the book bags are hung on hooks or in cubbyholes. Each day as the children go home they take a different book bag, rotating throughout the month. The teacher keeps a list on a clipboard to record the book bag number next to the child's name. The homework for a kindergartner through second grader is to read two books a day. If the child forgets to bring the book bag back, the spares can be used. In no case is a child denied access to a book bag because reading practice is considered essential. The management of this program is considered a success when both the teacher and the librarian agree that the system requires very little monitoring. At the end of the month, the class revisits the library, where the books are exchanged for new ones. Books in the book bag program are checked out to the room. No individual circulation records are kept for these books.

Schools using this system report extremely low loss rates and damage, counting the cost of either as the cost of doing business. In addition to using the book bags, the class comes to the library once a month to choose books for the classroom collection (a minimum of 100 books at a time). And the students make other visits during the month to select their own personal books to take home in addition to the book bags. The typical kindergartener, first or second grader should have read a minimum of 500 books during the school year and then linked into the public library system for regular reading during vacation periods.

Curiosity Kits. A variant on the book bag program is the creation of curiosity kits where each child creates a book bag filled with 2+ books on a theme that they think other members of the class might be interested in: whales, riddles, drawing books, hobbies, paper airplanes, kite flying, etc.

Theme Bags: During a month when the teacher will be studying a topic, children fill a third or half the bags with books on the topic.

Assessing the Book Bag Program. Together, the teacher and the librarian discuss the following points as they monitor the program:

1. How many children read the books every night?
2. What is happening to reading scores?
3. How many children are reading at or above grade level?
4. As a teacher, is this program worth doing after an experimental trial period?
5. What organizational changes could lead to more reading?
6. How many books were lost? Why? Do we care?
7. How will we report our success and challenges?

http://Knowville.org

Knowville is a world-wide initiative challenging the children and teens to:

- Read a billion books
- Write a billion books
- Do a billion projects

Who Can Participate:

- Classroom teachers
- Elementary, Middle, and Secondary Schools
- School Librarians
- Public Librarians
- Professional Organizations such as Library-Related Organizations, Reading Organizations, Literacy Organizations
- Educational and Civic Organizations
- Governments such as Ministries of Education
- Home schoolers and Home School Organizations

Why? The increasing need for world-class education to enable each child and teen to work and live in a global society requires more than just directives and testing. A critical factor is the motivation of children and teens to understand that they are preparing for a world-wide challenge, and that to be all they can be, education and literacy is a life-long endeavor. Knowville provides a space akin to the world of gaming where participants can build personal goals, issue challenges, and participate in a global effort to raise literacy and learning.

Details: Most schools have some types of reading, writing or doing initiatives. Knowville provides an umbrella initiative to use as a challenge both to do well in those initiatives, but also to give students the extra challenge of helping to achieve a much larger goal. Schools with an existing challenge can develop companion writing and project goals as they participate. While the main project has a few rules, most are developed at the local level. On the web site, Knowville.org has hundreds of ideas children and teens can explore to stimulate reading, writing, and doing projects beyond what schoolwork would normally prescribe. Local organizations can participate in the challenge and can help in the local goal setting, mentoring, and celebrations. Mentors add local totals to the Knowville web site and can see the contribution of others.

Knowville.org also has a presence in Second Life, the virtual world, where older teens and adults can visit to get ideas and show on a video projector as an adult floats with their avatar through the building of Knowville and participates in the events there.

Get to Knowville in Second Life by going to Second Life and searching for Knowville

Assessment: Participation in various challenges often stimulate participation and thus affects behavior. In this case, the central idea is that more free reading, writing, and projects contribute to achievement. The research is clear that wide reading that involvment in text, writing, and projects do affect many central skills.[3]

[3] Krashen. Stephen. *The Power of Reading*. 2nd ed. Libraries Unlimited, 2005.

My Knowville Log

My Name: _____ Time Period Covered: _____

Books I have Read: (describe) _____Total read

By Writing: (describe) _____Total Written

My Projects (describe) _____Total Projects

(Ask your teacher or mentor to log these numbers on http://knowville.org)

Doing a Classroom Print-Rich Environment Audit

Idea: Once a month, do an audit of a single classroom or a grade-level or department classroom's print-rich environment. The classroom teacher and the library media specialist spend 20-30 minutes assessing the condition and status of the classroom collection then make decisions and future plans based on this audit.

Genre Analysis

- ❑ Newspapers.
- ❑ Magazines.
- ❑ Novels representing a range of reading levels.
- ❑ Information books that answer and invite interesting questions.
- ❑ Books on tape (fiction and non-fiction).
- ❑ Poetry.
- ❑ Student writing.
- ❑ Picture books (regardless of student grade level).
- ❑ Speeches.
- ❑ Stories that connect to students' lives.
- ❑ Difficulty level. Span all needs?
- ❑ Interactive computer software.
- ❑ Links to online literature, writing, high-interest sites for reading.

Leadership Factors

- ❑ Involvement of parents.
- ❑ Budgeting.
- ❑ Part of school-wide reading initiative?
- ❑ Interface with the public library and other organizations.

Improvements and Solutions

- ❑ Things we can do instantly to improve the classroom collection.
- ❑ Things that will require setting up more formal plans and scheduling those actions.
- ❑ Things that will require administrative attention, long-term planning, budgeting, etc.

Facilities Analysis

- ❑ Space available – physical for books / computer connections for digital.
- ❑ Use of current space.
- ❑ Ideas for space reallocation.
- ❑ Display space.
- ❑ Shelving adequacy / needs.
- ❑ Use of boxes, bins, other containers.
- ❑ Space for student's books (personal, library checkouts, classroom materials).

Operations

- ❑ Condition of permanent collection.
- ❑ Condition of semi-permanent collection from the library.
- ❑ Check-out systems for student home use.
- ❑ System for rotating collections from the library – Who, when, how, what, how many?
- ❑ Status of temporary collections to match curricular studies.
- ❑ Involvement of students in maintaining classroom collections.
- ❑ Loss, replacement, repair.
- ❑ Sources for purchase / acquisition.
- ❑ Contents of collection (Of interest to students?)
- ❑ In-class promotion.
- ❑ Read-aloud, SSR time.
- ❑ Attractiveness of the collection and what to do about problems.
- ❑ Size of collection. Large enough?
- ❑ Use. Is it contributing to the amount each student reads?
- ❑ Student proposals to make it work better.
- ❑ Weeding as a part of the collection development plan.
- ❑ Book clubs and other classroom initiatives to build personal book ownership.
- ❑ Use and abuse of electronic reading initiatives.

Starter Sample of Library / Language Arts Program Links

List of Major Language Arts Standards and Elements	How the Library Can Respond
Phonemic Awareness (1st grade): Students understand the basic features of words. They see letter patterns and know how to translate them into spoken language by using phonics. They apply this knowledge to achieve fluent (smooth and clear) oral and silent reading.	➢ In storytelling and reading aloud, the librarian selects stories where word sounds are a natural part of the whole. ➢ Word and letter sounds are a fun part of story time. ➢ The librarian furnishes an ample supply of books where word sounds are a natural part of the literature. ➢ Parent program exists to help on letter sounds.
Comprehension and Analysis of Grade-Level-Appropriate Text (8th grade): Students read and understand grade-level-appropriate material. They describe and connect the essential ideas, arguments, and perspectives of the text by using their knowledge of text structure, organization, and purpose.	➢ The librarian arranges for online databases and selected web sites to provide students the variety of information they need that matches their level. ➢ The librarian teaches text structure as students encounter a variety of information sources. ➢ The teacher and the librarian team as the learners interact with the information.
List of the Major Library Media Center Reading Program Elements	**How the Language Arts Program/Teachers Can Respond**
➢ The librarian notices that in social studies, many learners cannot understand the chapters in the textbook because they are too difficult or the learners do not speak English very well. The library contains a plethora of materials on the topic at hand.	➢ The teacher and the librarian work together to choose reading materials on many levels and provide the learners with a wide choice in what they should read on the topic. ➢ Discussion and other activities done by the teacher and librarian insure that every learner has a deep understanding of the content knowledge.
➢ The librarian has acquired site licenses for word processing and outlining software to help learners both organize their thoughts and make the writing process more efficient.	➢ The teacher and the librarian team to teach the new tools including data collection and organization when a major writing project is due.

Assessment: The teachers and librarian are members of the professional learning community of this school dedicated to improving the reading program. They discuss and evaluate these initiatives and report their successes and modifications regularly to the administration.

Reading Evidence Plan: Example

Goal: To increase exponentially every student's access to books they want to read in the library, the classroom, and the home.

	Learner Level	Teaching Unit Level	Organization Level
Direct Measures*	• Through questionnaire or interview, the student should agree that access is at is maximum. • Evidence that students actually take advantage of maximum access. • The student's parents, teacher, and the library media specialist, along with the student, agree that responsible behavior is equal to the maximum access allowed.	• Students would agree that when they need to read for schoolwork topics, there is almost always a wide variety of material to choose from. • Assessment of an individual student's reading log is required as part of a unit of instruction to see that access was maximized. • The behavior of a teacher toward access issues pushed by the library program is positive.	• The behavior of almost all the faculty members toward access issues pushed by the library program is positive. • There is documentary support by administrators for the access issues of the library reading program.
Indirect Measures**	• Policies relating to access by individuals are in place to allow maximum access. • Abuses in the use of electronic reading programs (or any other initiative) are solved for the individual reader.	• A classroom audit has resulted in positive changes in access for students in a particular classroom. • A particular classroom has a rotating classroom collection and it is working.	• There is an ample budget for the reading collection to support the needs of expanded access. • Access policies for the entire school are in place and make provision for both groups and individuals. • Digital access to reading materials is ubiquitous. • The physical environment of the library is conducive to access.

* Direct measures would be those so close to actual learning that confidence in an impact could be inferred. We have no thermometers to stick in a learner's mouth to gauge actual learning, but direct measures might challenge doubters to prove no impact.

** Indirect measures provide evidence that actions set the stage for, provide an environment for, give support to, enable, help, give encouragement to, mark progress toward, make change in direct measures over time the probable stimulus.

Conclusions and Plan of Action:

It is clear that we must use several measures and strategies for determining current and tracking future access to reading materials and to consider this an ongoing quest. Questionnaires for students and parents, classroom library audits and circulation records will establish the current baseline against which future data will be compared.

Reading Evidence Plan: Template

Provide detail in the appropriate box for possible measures to be used in your reading program to measure its impact on achievement.

Goal: _____

	Learner Level	Teaching Unit Level	Organization Level
Direct Measures*			
Indirect Measures**			

* Direct measures would be those so close to actual learning that confidence in an impact could be inferred. We have no thermometers to stick in a learner's mouth to gauge actual learning, but direct measures might challenge doubters to prove no impact.

** Indirect measures provide evidence that actions set the stage for, provide an environment for, give support to, enable, help, give encouragement to, mark progress toward, make change in direct measures over time the probable stimulus.

Conclusions and Plan of Action:

Organization Level, Direct Measure

Your School Library Circulation Statistics

Circulation statistics have long been a statistic kept, if not analyzed by school librarians. Make this statistic work for you by taking additional analysis steps to correlate circulation by particular groups of students with their reading performance statistics in classroom or statewide testing. Automated circulation systems make this possible by capturing data on given days for particular grade levels or even by individual library patrons.

Research in the field has often found positive correlations between the amount a student reads with achievement on reading tests. The number of books students check out is one indicator of how much students are reading.

On a periodic basis, log the circulation of library materials of particular student groups as well as their most recent reading comprehension or other related test scores. Can you find a positive correlation?

Date	**Group Examined**	**Circulation growth**	**Assessment growth**	**Notes**
Example: *12/07 annual check*	*Grade 3 All classrooms*	*Circulation up by 12% over 1 year previous*	*Reading Comprehension test score average increase of 6%*	*Check top and bottom performing students to confirm positive correlation.*

Supporting Reading in the School

Regardless of the experience of classroom teachers or librarians, there are two strategies that can improve both performance and attitudes toward reading.

Start SSR (Sustained Silent Reading)

As learners progress through school, they spend less and less time reading independently during class. However, many learners do not make up for this by increased time reading independently at home. SSR (sustained silent reading) is a response to this reality that holds myriad benefits.

Ten Reasons to Start SSR Today:

1. Increases the amount students read. Amount counts.
2. Builds vocabulary through exposure to words in context.
3. Offers learners an opportunity to read materials of their own choice.
4. Leads to more reading outside of school.
5. Provides on-going opportunities for adults to model reading behavior with students.
6. Increases fluency in second language learners.
7. Helps develop reading as a habit.
8. Broadens and deepens students' knowledge base.
9. Places value on reading for pleasure.
10. Fosters a love of reading and a love of learning.

Read Aloud

Some teachers and administrators feel reading aloud is a poor use of instructional time, particularly at the secondary level. In fact, reading aloud is so effective it should be done every day in classes K-12.

Benefits of Reading Aloud to Learners:

- Builds vocabulary and background knowledge.
- Establishes the reading-writing connection.
- Introduces the nuances of language.
- Helps promote a love of reading.
- Helps introduce types of reading students may not discover independently.
- Provides risk-free opportunities for students to enjoy the richness of written language.

Librarians Help Teachers Read Aloud By:

- Locating high interest literature selections for the teacher.
- Reinforcing good modeling by reading aloud to students during book talks, promotions, and other library visits.
- Locating selections relevant to the classroom teacher's specific curriculum.

Assessment of SSR and Reading Aloud:

_____ What percent of the students in the school do SSR every day?
_____ What percent of the students in randomly selected classes appreciate SSR?
_____ What percent of the teachers have an SSR period during their classes?
_____ What percent of the teachers read aloud to their students every day?
_____ What percent of the teachers read aloud regularly but not every day?
_____ What percent of the teachers do not read aloud to their classes?
_____ What percent of the students in randomly selected classrooms appreciate reading aloud?

Report this data to department or grade level heads and administration. Make a plan to improve. Even if reading scores remain level or improve, count this as one factor in success.

Checklist on Support of Reading By the Library

How does your school library program support reading? A checklist:

Access:

- ❑ Does the budget allow for the purchase of at least two books per year per child?
- ❑ Do students have flexible access to the books and other reading materials in the school library?
- ❑ Does the circulation policy encourage students to take home unlimited numbers of reading materials?
- ❑ Are the classrooms regularly supplied with new collections of reading materials from the school library?
- ❑ Are paperback books available in book bags, baskets, and other containers in the lunchroom and other areas throughout the school?

Strategies:

- ❑ Is a sustained silent reading or similar program in place in the school?
- ❑ Are students read to daily for 15 minutes or more?
- ❑ Do teachers and the librarian convey the message that free voluntary reading is a priority?
- ❑ Do the school and public library work together to promote reading?
- ❑ Do students have the opportunity to participate in state book award programs, http://knowville.org, Read Across America, and other activities that promote reading?
- ❑ Are book talks by teachers, librarians and students given on a regular basis?
- ❑ Are students involved in choral reading, puppetry and readers' theater?

Collections:

- ❑ Does the school library have a large selection of high interest, appealing reading materials that students will enjoy?
- ❑ Is there a large budget to refresh the collection each year to keep it of interest to readers?
- ❑ Are books available to support units of study that are attractive, well illustrated and at appropriate reading levels?
- ❑ Is there a collection of multimedia that support reading for pleasure and information?
- ❑ Do students have the opportunity to suggest or select new titles for the collection?

_____ How many of the above are operational in your school?
_____ How many are operational, but need improvement? Which ones?

What is your plan to make needed changes happen?

Assessment of the Library Impact on Reading

There are a wide variety of simple to complex measures that can be used to establish the library impact on the reading program of the school. Below are suggestions at the various levels that will be strong indicators of impact.

Level of Measure	Factor	Sources of Data
Library Reading at the Organization Level (District and School)	The state of the support of both the library reading program and the reading curriculum.	❑ Number and percent of learners participating successfully in school-wide reading initiatives. ❑ Number and percent of readers who participate in SSR time. ❑ The number and percent of readers on or above grade level on reading scores. ❑ The annual budget for reading materials for the library reading program meets the needs of the school. ❑ The number and percent of teachers reading aloud every day to learners.
Library Reading at the Teaching Unit Level (class interaction and use)	The impact the library reading program has on classrooms print-rich environments, the language arts curriculum, and units of instruction where reading can be integrated.	❑ The number by discipline or grade level of collaborative units where a "reading" component is present. ❑ The extent to which both fiction and nonfiction was integrated into collaborative units. ❑ Evidence that the library reading program and the language arts goals were integrated in a collaborative unit. ❑ The number of classrooms that have rotating classroom collections from the library.
Library Reading at the Learner Level (as individuals)	Individual progress by each learner as a capable and avid reader.	❑ The reading scores of an individual student. (see note 1 below) ❑ Evidence of individual progress in reading from measures other than state or standardized tests. ❑ Evidence from an attitudinal measure that the learner is both an avid and capable reader. ❑ Reading log analysis (including amount read). ❑ Points from electronic reading programs ❑ Scores on writing assessments ❑ Score on Cornwell's Independent Reading Rubric (see the next page)

Note 1: The federal No Child Left Behind Act and the funding through ESEA requires states and schools that qualify for federal money to use "scientifically based" research to systematically and empirically use methods that draw on observation or experimentation. "For reporting purposes, the federal government is requiring that evidence be collected on the number and percentage of K-3 students who are reading at or above grade level. States must also include data on the academic status of subgroups of students who are traditionally "left behind" – students who are economically disadvantaged, come from minority groups, have disabilities, or have limited English proficiency"[4] In the real world of schools, as long as the federal data is collected as required, many other techniques and data collection techniques are acceptable. For opposing views to the federal program, read Allington"s *Big Brother and the Educational Reading Curriculum.*[5]

[4] "Reading's New Rules: ESEA Demands a Scientific Approach," *Education Update*, August 2002, p. 5

[5] Allington, Richard L. *Big Brother and the National Reading Curriculum: How Ideology Trumped Evidence*. Portsmouth, NH: Heinemann, 2002.

Organization Level, Indirect Measure

Danger Signs to Reading!

When Reading is Not Well-Supported by the Library Program

If *any* of the following describe or approximate what is going on in your school, red flags should be raised, and corrections made.

- ❑ Students would not list reading on any list of fun things to do. Reading is *not* cool.
- ❑ Book collections in the library media center are old, worn out, and unattractive.
- ❑ Budgets are so small that the number of new books purchased each year is insignificant.
- ❑ Books available don't match what children or teens would enjoy reading.
- ❑ Students only check out one or two books a week from the library media center.
- ❑ Classrooms contain few reading materials beyond textbooks.
- ❑ Classroom collections are small, outdated, too limited, or stagnant.
- ❑ Classroom collections and library collections are not connected and are funded separately.
- ❑ Reading aloud, particularly as students get older, is sporadic or non-existent.
- ❑ There is wide concern that high school students are not good readers, but there is no school-wide effort to do anything about it.
- ❑ Teachers of science, social studies, physical education, art, and math don't feel they have any responsibility to teach reading.
- ❑ Science, social studies, or other content areas require little or no reading beyond the few textbook paragraphs on a topic.
- ❑ No program of sustained silent reading exists in the school; or, it has been tried but has been considered a failure.
- ❑ Reading motivation "events" or programs are one-time or annual events of brief duration or non-existent.
- ❑ There are very few books in student's homes.
- ❑ Students do not have bed lamps or safe places to keep library media center books in the home.
- ❑ Parents, care givers, or siblings do not read aloud to younger students on a regular basis.
- ❑ Other:

My Library's Impact on Reading Chart

Level of Measure	Factor	Sources of Data
Library Reading at the Organization Level (District and School)		
Library Reading at the Teaching Unit Level (class interaction and use)		
Library Reading at the Learner Level (as individuals)		

Linking English/Language Arts Standards and Library Reading Programs

Many states have set out academic standards for the teaching or the language arts. These standards often do not mention the word "library." One presumes a strong library media center program if the standards are to be implemented effectively. Together, librarians and teachers develop plans to strengthen the language arts program at all ability and grade levels.

- **Idea:** Hold a Language Arts Summit
- **Who:** Principal, reading specialists, teachers, librarians, community representatives, other guests as invited.
- **Engaging Problem:** How can the library media center and the language arts program complement each other to create a school-wide community of readers?
- **Worksheet:**

List of Major Language Arts Standards and Elements	**How the Library Media Center Program Can Respond**
List of the Major Library Media Center Reading Program Elements	**How the Language Arts Program/Teachers Can Respond**

- **Task:** Create a collaborative and integrated language arts/library media center program plan.
- **Resources:** What do we already have? What do we need? How will we get what we need?
- **Assessment:** What was planned? Who carried it out? With what success?

Reading: Additional Resources

Available from LMCSource at http://lmcsource.com:

Krashen, Stephen D. ***The Power of Reading, Second Edition: Insights from the Research***. Heinemann, 2004. — Continuing the case for free voluntary reading set out in the book's 1993 first edition, this updated second edition explores new research done on the topic in the last 10 years as well as looking anew at some of the original research reviewed.

My Reading and Writing Log. Hi Willow Research & Publishing, 2007. — If you have Microsoft Access available in the classroom, the library, or the school, teachers can have each child create a database not only for what they are reading but also to allow them to write about their reading correlated to the writing program in the school.

Other Resources:

Allington, Richard L. ***Big Brother and the National Reading Curriculum: How Ideology Trumped Evidence*.** Portsmouth, NH: Heinemann, 2002.

***Family Literacy Back Packs*:** Teacher/school librarian teams create family backpacks to further family literacy. Each backpack is designed around a theme using readily available materials and technologies to promote reading, viewing and thinking activities in the family. To see examples of nearly 100 backpacks covering more than 50 themes and include family activities, resources required, and how standards are addressed visit the Buddy Family Literacy Backpacks section at www.buddyproject.org/backpack

Moreillon, Judi. ***Collaborative Strategies for Teaching Reading Comprehension***. ALA Editions, 2006. Drawing on cutting edge research in instructional strategies, Moreillon, a veteran teacher-librarian, offers a roadmap to the task of teaching reading comprehension in a proven collaborative process.

Ross, Catherine Sheldrick, Lynne McKechnie, and Paulette M. Rothbauer. ***Reading Matters: What the Research Reveals about Reading, Libraries, and Community***. Libraries Unlimited, 2005. — Place this book alongside Krashen's on your shelf, and consult it when you are preparing presentations about the value of teacher-librarians and their impact on literacy.

Technology

Why technology? The essential features of technology have the potential to boost learning when used properly. We say technology is a tool. A tool to help learners be more efficient, to learn more in the same amount of time, to communicate more effectively. The new collaborative technologies such as wikis and blogs, and company products from Skype™, Ning®, and Elluminate™ are pushing collaborative document building and collaborative voice communication world-wide. One can think of collaborative projects boosted by technology in a single classroom, in the school, in the school district, across the state, across the nation, or across the world. The "flat world" forces us as educators to think of world class education boosted by technology so that our learners can compete globally.

And the Research Says. . .

Hooking kids up and turning it on is not a solution to boosting technology. No difference is automatically forthcoming. Differences are noted when clever use of technology causes learners to read more, write more, do more, and understand more. When technology boosts efficiency, we say that students learn more in the same amount of time.

Essential Element to Measure:

	Learner Level	Teaching Unit Level	Organization Level
Direct Measures*	• Does Technology Really Help Us Learn? • Joint Assessment Rubric • "Learning Through Technology" Fair • Educational Technology Standards – NETS•S	• Joint Assessment Rubric • Possible Technology Measures to Collect and Report • Educational Technology Standards – NETS•T • Reflecting with Students	• Possible Technology Measures to Collect and Report • Educational Technology Standards – NETS•S & NETS•T • Assessment of Technology's Impact
Indirect Measures**	• Online Efficiency Challenge • System of Choice Student Survey • Skills & Systems Assessment • Reliability Analysis • Accessibility Assessment • After Activities Review	• Possible Technology Measures to Collect and Report • Skills & Systems Assessment • Reliability Analysis • Accessibility Score	• Possible Technology Measures to Collect and Report • System of Choice • Skills & Systems Assessment • Reliability Analysis • Accessibility Score • STaR Chart • Integrating Information Technology into the School • Ripple-Effect Measures • Danger Signs Checklist • Impact! Track technology used in collaborative activities (*see pg. 8*)

* Direct measures would be those so close to actual learning that confidence in an impact could be inferred. We have no thermometers to stick in a learner's mouth to gauge actual learning, but direct measures might challenge doubters to prove no impact.

** Indirect measures provide evidence that actions set the stage for, provide an environment for, give support to, enable, help, give encouragement to, mark progress toward, make change.

Does Technology Really Help Us Learn?
A Quick Check

Question: Does technology really help us learn? – a question to ask a group of learners after technology has been integrated into a learning experience.

Method: The teacher and the librarian should:

1. Prepare a chart like the one below with the issues they would like to discuss with the learners. This can be on the board or on a large piece of paper.
2. After the learning unit is over and the grades are assigned, have a reflection session on the value of technology in that learning experience.
3. Have the learners go to the chart and mark each of the items. A sample chart is presented here:

The Technology We Used Helped Us:			
	No	**Some**	**Yes**
Find information easily and quickly			
Organize and keep track of my information			
Learn a new skill			
Understand the topic I am studying			
Ask new questions I want to know about			
Make a good presentation			
Communicate with others			
Do projects with partners			

4. Questions for discussion:
    a. What is this information telling us about our use of technology?
    b. How can we improve as a class and as an individual?
    c. How can our school help us more with technology?

5. The librarian and teacher conference about the results. How can we use the technology to enhance learning better the next time we collaborate?

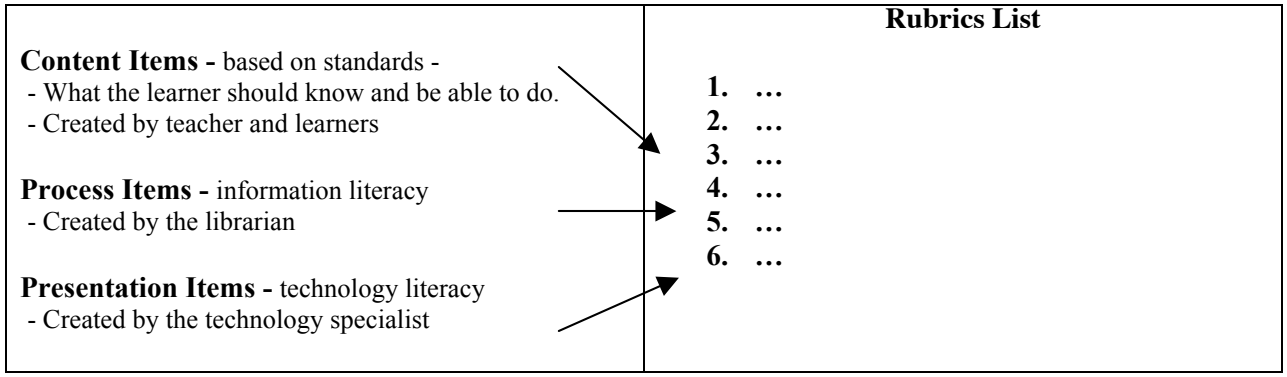
Joint Assessment Rubric

Judging Glitz vs. Content in High-Tech Products at the Learner Level

It is easy to be impressed with the glitz of technology particularly when the student knows more about computers or other high-tech than we do. But glitz is not a substitute for deep learning. Thus the first two of the Ten Commandments for judging projects for the media fair and for classroom products:[1]

> 1. Thou shalt notice the substance of the product or project first.
> 2. Thou shalt notice technological expertise later.

As learners begin projects, the collaborating team constructs a rubric that sets content before format; rewards learning over presentation; process over product.



Rubric generators are available to assist collaboration teams in including desirable elements. For example, a holistic scoring guide for a compare/contrast project resulted in numerous items of which one is listed below. See at: www.ncrtec.org/tl/sgsp/index.html

	5 Exemplary	4 Not Quite Exemplary	3 Developed	2 Not Quite Developed	1 Limited
Content Knowledge	The purpose/main point is clearly defined. The student demonstrates strong critical thinking and well-integrated ideas, and maintains clear focus and a compelling and original voice. The student compares and contrasts two things using specific examples to support the position. There is evidence of genuine learning - others find work useful and benefit from this product.		The main point is only implied or partially stated. The student shows some evidence of critical thinking and integration, as well as focus, style, and voice. The student compares and contrasts two things but uses few or somewhat unclear examples to support his position. There is new learning but for the student only – not developed or useful for others.		The main point is unclear. There is little or no evidence of critical thinking or integration and a lack of focus, style, and voice. The student does not compare / contrast two things, and uses inappropriate or no examples to support his position. There is no evidence of new learning - nor developed or useful for student or others.

Resource: Simkins, Michael, et.al. *Increasing Student Learning Through Multimedia Projects*. Alexandria, VA: ASCD, 2002. See also NWREL products at http://www.nwrel.org/assessment/

Assessment in your school. Encourage the teacher to include content assessment of projects as the main part of assessment rubrics. Demonstrate how this works to both teachers and students. Interview random students over time to see if their behavior has been changed to emphasize learning in their products. Report success to administrators, boards, and parents.

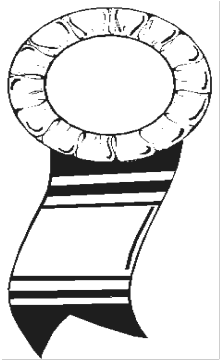
[1] What are the other eight commandments you follow?

"Learning Through Technology" Fair

Hold a "Learning Through Technology Fair"

Who Leads: Principal, librarian, selected teachers

Activity: Somewhat like a science fair. Individuals, small groups, large groups exhibit projects and inquiries for the school, the community, or the school board. Parent or board judges are trained 30 minutes before the fair how to evaluate enhanced learning through technology and are given a tray of 6 different colored tokens. Using the rubric card (sample below), each judge can give one token for each statement on the rubric that seems to be true about the project being judged. Judging can go on while parents or other students are circulating around the fair or before the fair is open to the public. Prizes can be awarded for every project that receives a certain number or certain color of tokens. Recognition should be widespread rather than for a chosen few.



Learning Through Technology Rating

Q - Thoughtful **Quest**/**Question**
U - **Used** multiple information resources
E - Used **Excellent** sources only
S - Can **Summarize** well what's learned
T - **Technology** used well
! - **Wow!** They learned a great deal!

Judging criteria elaborated:

Q - The students can verbalize their **Question** or **Quest**. The question seems a significant one for the students, and they were interested in the topic from the beginning.

U - The students should be able to report what information sources they **Used** and should show some ingenuity in locating their sources with the assistance of their teachers and the librarian.

E - The students should be able to report not only a wide variety of sources consulted but how they sorted through those sources to use only those that were **Excellent**. This should demonstrate their critical thinking.

S - The students should be able to **Summarize** clearly how and what conclusions they arrived at in their quest.

T - The students should be able to explain how they used **Technology** to assist them in their project and its presentation. They should have gained some skill using that technology as they worked with it.

! - Wow! They learned a great deal! It is just what it says. As a judge, you are very impressed with what the students learned.

Possible Technology Measures to Collect and Report

- The percent of students who would rate the technology as helpful in completing their assignments during a unit of instruction. After a library experience, a simple question either in paper form or vocally would surely elicit comments and no doubt open a conversation of how we could all help make things better in a hi-tech environment.

- The number and percent of teachers who would report during a sample month that technology had "contributed to learning" during a collaborative activity in the library. If a question like this is asked at the conclusion of each library collaborative experience, much good revised planning, spirit of good will, and mutual congratulation would help build not just technology, but its effective use.

- The skill each teacher has in incorporating technology into his or her teaching. When ISTE published its technology standards for pre-service teachers we all marveled and wished that every teacher would be thus prepared. The reality is that to meet these standards, much professional development must be in place. While the librarian and tech director cannot take full responsibility for that training, we can participate on the leadership team, first, by achieving and modeling these competencies ourselves, and second, helping others achieve them. ISTE[2] published an entire volume that provided extensive rubrics to help judge the competence of each teacher so that documentary evidence is available. In June, 2008, ISTE released new NETS for Teachers, updated to meet today's world and taking, perhaps, a broader view of technological competency.

Assessment: On the following page is the 2008 ISTE NETS (NETS•T) for teachers that list the competencies each teacher should have to integrate technology into their teaching and learning. To do a group assessment of skills, make a large chart of all or a few of the standards and put it on the wall. During a break in a meeting, ask each teacher to use a green marker for "competence" and put a green star at the end of the competency, or a yellow star if they feel they are making progress, and a red star if they need help. When every teacher has done his or her marking, take a look at the pattern on the chart. As a group, what are our strengths? What would likely targets be for professional development? Share the findings with the appropriate administrators or district personnel.

Following the teacher standards are the 2007 NETS for Students (NETS•S). ISTE is creating grade level expectations that will be published in 2008. In the meantime, select examples like you did for teachers and ask a class of students to create their own chart like the described above and then discuss how competent they feel as students and what they would like to see happen to help them become better.

[2] *National Educational Technology Standards for Teachers: Resources for Assessment.* Eugene OR: ISTE, 2008

National Educational Technology Standards (NETS•T) and Performance Indicators for Teachers

Effective teachers model and apply the National Educational Technology Standards for Students (NETS•S) as they design, implement, and assess learning experiences to engage students and improve learning; enrich professional practice; and provide positive models for students, colleagues, and the community. All teachers should meet the following standards and performance indicators. Teachers:

1. Facilitate and Inspire Student Learning and Creativity

Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments. Teachers:

- **a.** promote, support, and model creative and innovative thinking and inventiveness
- **b.** engage students in exploring real-world issues and solving authentic problems using digital tools and resources
- **c.** promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning, and creative processes
- **d.** model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments

2. Design and Develop Digital-Age Learning Experiences and Assessments

Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS•S. Teachers:

- **a.** design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity
- **b.** develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress
- **c.** customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources
- **d.** provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching

3. Model Digital-Age Work and Learning

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society. Teachers:

- **a.** demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations
- **b.** collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation
- **c.** communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital-age media and formats
- **d.** model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning

4. Promote and Model Digital Citizenship and Responsibility

Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practices. Teachers:

- **a.** advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources
- **b.** address the diverse needs of all learners by using learner-centered strategies and providing equitable access to appropriate digital tools and resources
- **c.** promote and model digital etiquette and responsible social interactions related to the use of technology and information
- **d.** develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital-age communication and collaboration tools

5. Engage in Professional Growth and Leadership

Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources. Teachers:

- **a.** participate in local and global learning communities to explore creative applications of technology to improve student learning
- **b.** exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others
- **c.** evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning
- **d.** contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community.

National Educational Technology Standards for Students:[3] NETS•S

"What students should know and be able to do to learn effectively and live productively in an increasingly digital world …"

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

a. apply existing knowledge to generate new ideas, products, or processes.
b. create original works as a means of personal or group expression.
c. use models and simulations to explore complex systems and issues.
d. identify trends and forecast possibilities.

2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

a. interact, collaborate, and publish with peers, experts or others employing a variety of digital environments and media.
b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.
c. develop cultural understanding and global awareness by engaging with learners of other cultures.
d. contribute to project teams to produce original works or solve problems.

3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

a. plan strategies to guide inquiry.
b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
d. process data and report results.

4. Critical Thinking, Problem-Solving & Decision-Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:

a. identify and define authentic problems and significant questions for investigation.
b. plan and manage activities to develop a solution or complete a project.
c. collect and analyze data to identify solutions and/or make informed decisions.
d. use multiple processes and diverse perspectives to explore alternative solutions.

5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

a. advocate and practice safe, legal, and responsible use of information and technology.
b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
c. demonstrate personal responsibility for lifelong learning.
d. exhibit leadership for digital citizenship.

6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems and operations. Students:

a. understand and use technology systems.
b. select and use applications effectively and productively.
c. troubleshoot systems and applications.
d. transfer current knowledge to learning of new technologies.

[3]

Reflecting With Students

Why Reflect?
Frank discussions and reflections with learners can provide a great deal of valuable feedback from learners as they try to use technology to accomplish their assignments. Being a coach rather than a dictator can be quite beneficial as systems are created, maintained, and modified.

Who would conduct the reflection?
A mix of the teachers, administrators, the librarian, the technology specialist, plus the learners themselves.

When should the reflection happen?
- After a learning activity where technology, information systems, library facilities and resources were a critical part of the learning experience.
- After the grades are in. (Students should feel free to speak up.)
- After an assessment where learners had to demonstrate their knowledge or what they did.

What questions might be constructed to ask during a reflection?
Each reflection will have its own set of questions, but the list below is suggestive of topics to broach and adapt to any grade level:
- Here is the state standard/local expectation that we as teachers had for this learning experience (list those used by all teachers and specialists across the various curricular standards). How well do you feel we did as a group in meeting those objectives?
- How well did a certain technology help you as a learner?
- What information sources or systems seemed to help you the most?
- What problems did you encounter with either a technology or information sources?
- What could we do to make sure that technology and information sources serve us better in our future projects?
- How could you help the process more as learners?

How sophisticated should the reflection be?
Tailor the reflection to the maturation level and student experience using technology.

How much time should it take?
Reflections might be as short as ten minutes or as long as a half hour depending on the complexity of the learning activity, the difficulties encountered, and the sophistication level of the learners.

- What should happen after the reflection?
- Meet with the other adults involved to plan any changes in program.
- Document the reflection as a part of data-driven practice at the teaching unit level.

Bottom Line Questions

1. What is the sophistication level of the students in their use of technology?
2. Is the use of technology really enhancing the learning experience?

Assessment of Technology's Impact

Both learners and teachers are often quite willing to invest time and effort to integrate technology when it is accessible and it works. Collecting, reviewing, and reporting data at the organizational level, the teaching unit level and the learner level will help assess the impact technology is ready to make and is making in the school.

Level of Measure	Factor	Sources of Data
Technology at the Organization Level (District vision for effective technology use)	The state of the technology infrastructure in the district and at the building/ library/ classrooms	❑ Percentage of learners who could find an Internet-ready computer when needed. ❑ Number and percentage of operational computer connections in the library. ❑ The annual budget to upgrade networks to meet technology plan needs. ❑ The size and competence of the technology staff for the school. ❑ Percentage of staff who know the technology vision.
Technology at the Teaching Unit Level (class interaction and use)	Technology's contribution to the teaching and learning.	❑ The percentage of students who would rate the technology as helpful in completing their assignments during a unit of instruction. ❑ The number and percentage of teachers who would report during a sample month that technology had "contributed to learning" during a collaborative activity in the library.
Technology at the Learner Level (as individuals)	Individual progress by each learner as technology becomes a trusted tool.	❑ Rubric score for use of technology in a project. ❑ Rubric score that content knowledge was enhanced through technology. ❑ Rubric score that information literacy standards were met.

Make your own form:

Level of Measure	Factor	Sources of Data

Online Efficiency Challenge

Do you remember the typewriter? Do you remember the changeover to a word processor? I thought so.

We say that through the tools available on the digital school library, the helps, the direct access to assignments, the webographies, the forms, the suggestions, the direct access to quality databases, etc., etc., etc., that we increase the efficiency of anyone who clicks our way.

- Come to us.
- *We save you time.*
- We have exactly what you need.
- *We save you time.*
- We make your projects look better.
- *We save you time.*
- You can trust our information.
- *We save you time!*

I know, they don't believe you. Google is always faster and better. Or, is it? One great library media specialist in Massachusetts tells her students: "Do you want to SEARCH or do you want to FIND? Do you want a GOLD MINE or a TRASH HEAP?"

Divide a class in half who are searching for the best articles on the topic at hand. Half will search Google, half library databases. What happens? Who gets the best the fastest? I did not say, who got the most the fastest!

The digital school library should be the source of:

- Tools
  - Word processors
  - Databases
  - Spreadsheets
  - Graphing, charting tools
  - Map makers
  - Timeliners
  - Web 2.0 tools
- Databases
  - Ready reference (encyclopedias, dictionaries, thesauruses, facts)
  - Periodical articles
  - Data banks
  - The best of the Web
- Assignments
  - Access to all projects currently being done in the library from any teacher
- Helps
  - Advice
  - Books to read

Report: How would users rate your efficiency? Can they do more work in less time because the digital school library exists?

System of Choice: Student Survey

Which brand of toothpaste or mouthwash, or shampoo, or lotion do you use? Do you prefer them for their quality or because of the advertising hype? Are we absolutely certain that the grocery store we shop at has the lowest prices?

What is on your own computer as its home page? Is there library access on the home page of your own computer? Is there access to Google or your favorite Internet search engine on the home page of your own computer?

Now to the tough questions:

- Is your digital library, information system, portal, displayed on the home page of teachers and students? What percent? Why not 100%?
- If your digital school library is not the home page of a potential user or at least an icon on their home page, what chance do you have of being that user's information system of choice? (Choose one answer: little, or none).
- Should you be in competition with Google or some other popular information system?
- Are you in competition?
- How could you get into the competition?
- Is it too late already? (If it is, should we quit our jobs?)
- Are we taking the competition by lying down? NOOOOOOOOOO!

Do a simple survey: Ask students to rate which information systems they would usually access first, second, third, etc. Are you in the top five? Are you top dog? What percent of the users rate you in the top five or as top dog?

Example:

Where do you seek information when you have a reference question? Rank the following in the order in which you might go to each, e.g. 1st, 2nd, 3rd, 4th, through 10th.

_____ Ask a parent
_____ Read a book on the topic
_____ Ask a friend
_____ Search for it on the Internet using a search engine (eg. Google)
_____ Look it up in an encyclopedia (CD or online)
_____ Go to the library's home page
_____ Ask a teacher
_____ Use a dictionary
_____ Ask a librarian
_____ Watch a video

Like Colgate or Pepsi, proclaim your presence loud and clear. What's your slogan? ("Things go better…in the Washington digital school library?")

Report: What is your system of choice score?

Skills and Systems Assessment

In a sea of technological devices, upgrades, and new software versions, the list of skills everyone needs has grown exponentially:

- Equipment operation and care
- Software and materials care
- Word processing, database construction, and spreadsheets
- Layout and graphic design for presentations and communication in print, video,
- and multimedia formats
- Internet and information system searching and use
- Adapting to new versions and upgrades of software and hardware
- Web 2.0 collaborative applications

Few if any can claim expertise on all machines and information systems. Likewise, keeping a wide array of technologies operational requires a community of supportive and helpful users. Hence the critical compact between adults and students:

You Teach Me,
I Teach You,
We Teach Each Other,
And, We All Help Keep It Working,
In a Safe and Nurturing Environment.

Skills and Systems Checklist

- ❑ Acquire equipment and hardware able to withstand heavy use.
- ❑ Purchase software that is easy to use, teaches itself, and adapts to cross-platform operation.
- ❑ Provide training for both students and teachers in two modes:
  - o Formal skill-based instruction
  - o Just-in-time instruction (at the time of need)
- ❑ Many persons including students, teachers, parents, employees, and volunteers, can provide both skill-based instruction and just-in-time instruction.
- ❑ Instruction can take place in labs, classrooms, the library, and wherever there is a single piece of equipment.
- ❑ Students may carry "technology drivers' licenses" as evidence of their facility with software and equipment and permission for independent use.
- ❑ Other:

Reliability Analysis

When systems and networks are as reliable as refrigerators, we've made it. Enough said. Everybody wants instant access with wide bandwidth now. Instant gratification.

There is a computer program that checks every few minutes if the network is up and if not, it emails the system administrator – 24 hours a day, seven days a week. And you can get it to ring your cell phone. Whatever it takes. The systems director in the School of Library and Information Science gets very peeved at us if we say to him: the web site is down. He will say, "It's not the web site it's the California C4 Network over which I have no control!" He's right, any part of the chain can be broken with disastrous results, or the East Coast can go black! That said, it's reliability that counts. There is just so much patience and forgiveness.

The digital school library makes it possible to serve information 24/7/365.

Measures to report:

- Given the goal 24/7/365, the digital school library for X school or X district was
  - up _____ percent of the time during school hours
  - and _____ percent at other times.

- What is your computer network reliability score?

  _____ above 99% of the time

  _____ above 98% of the time

  _____ below 98% of the time

- Report trends over time.
  - Chart the above over the:
    - last week
    - month,
    - school year

- Do an analysis of down time and for each cause, suggest an improvement together with costs of repair or upgrade.

Accessibility Assessment

In real estate, we say, "location is everything." In networks and access to them, "at the elbow" is in. At the moment, the rage is WiFi (wireless access) so that a personal device or computer can sense a signal anywhere in a library, classroom, or school facility, or in the home. The goal is to have the digital school library at the elbow of every patron.

The second access measure is the device measure. What devices are you supporting for access to the digital school library?

- Computers attached to networks
- Laptops with wireless cards
- Inexpensive keyboard/semi-computers with Internet access
- PDAs (personal digital assistants such as Palm Pilots)
- Cell phones that have Internet capability
- "X" product that is just on the horizon and will be announced shortly.

Learners who have access to the Internet but not the digital school library find their information systems elsewhere. This is true when the library is locked or inaccessible to a student any time during the school day and certainly on nights and weekends. Closed libraries are zeros both for teacher and students!

Collect and report data showing:

Access Where

- One computer in the classroom
- Several computers in the classroom
- A few computers in the library
- A computer lab
- Wireless all over the school

Access on What

- A shared computer
- Personal PDA or other small device
- Personal computer (one to one computing)
- Computer at home

Report: What is your computer accessibility score?

After Activities Review

What is an AAR?
AARs or After Activities Review is a common technique in the military to determine "how things went" with leaders and soldiers — everyone involved in a training exercise.

Who Would Conduct the AAR?
The principal with the library media specialist, classroom teachers involved, and the students themselves.

When to Conduct an AAR

- After a learning activity where technology was used heavily as a major learning tool.
- After the grades are in. (Students should feel free to speak up.)

Major Questions of an AAR

- How well did a certain technology help you as a learner?
- What information sources seemed to help you the most?
- What problems did you encounter with either a technology or an information source?
- What could we do to make sure that technology and information sources serve us better in our next projects?
- Did the technology really help you learn?
- How could students help? Leaders help?

How to Conduct an AAR

- Make up your own AAR review sheet listing questions you want to ask and technologies and information sources your school implements.

Sophistication of the AAR

Tailor the AAR to the maturation level and student experience using technology.

What to Do After an AAR
Meet with the teachers and the library media specialists to plan any changes in program.

Technologies Used Checklist

- ❑ Library catalogs
- ❑ Stand-alone computer stations
- ❑ Internet terminals
- ❑ E-mail systems
- ❑ Word processing/publishing stations
- ❑ Video production equipment
- ❑ Audio production equipment
- ❑ Multimedia production stations
- ❑ Facilities for use of technology
- ❑ Library facilities access

Types of Information Sources Accessed

- ❑ Books (fiction or nonfiction)
- ❑ Books (Reference)
- ❑ Magazines (printed)
- ❑ Magazines (electronic)
- ❑ Newspapers (printed)
- ❑ Newspapers (electronic)
- ❑ Online databases
- ❑ Computer tutorials
- ❑ Simulation games
- ❑ Internet information sources
- ❑ Museums or field trip sites
- ❑ Visiting experts
- ❑ Other libraries

Possible Problems Encountered

- ❑ Accessibility
- ❑ Inoperative systems
- ❑ Lack of training on a system
- ❑ Lack of assistance during use
- ❑ Breakdown of group process
- ❑ Too little time to work on technology

Bottom Line Questions

1. What is the sophistication level of the students in their use of technology?
2. Is the use of technology really enhancing the learning experience?

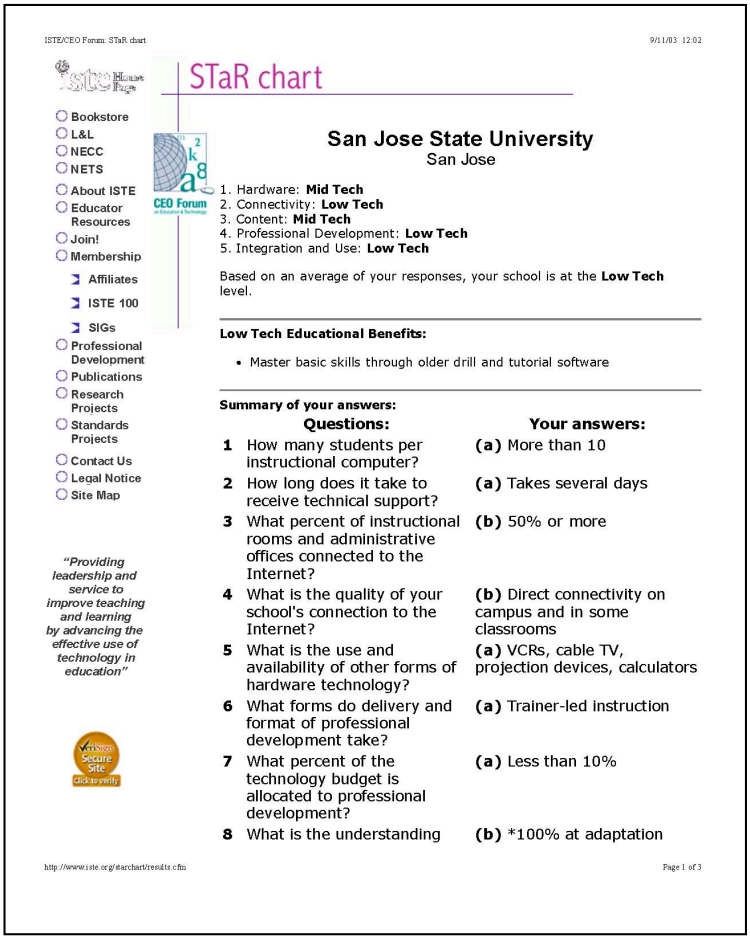
STaR Chart
An Online Assessment

Checklists and Rating Charts (Organization Level)

Rate the sophistication of your technology infrastructure and its use. ISTE provides access to the "CEO Forum's Interactive School Technology and Readiness (STaR) Chart, a self-assessment tool designed to provide schools with the information they need to better integrate technology into their educational process." By answering 20 questions online, you receive feedback on how well your school is doing. "The STaR Chart can help any school or community answer three critical questions:

1. Is your school using technology effectively to ensure the best possible teaching and learning?
2. What is your school's current education technology profile?
3. What areas should your school focus on to improve its level of technology integration?

The questionnaire is available at: http://www.iste.org/starchart. The result might look something like: this:



ISTE/CEO Forum: STaR chart 9/11/03 12:02

STaR chart

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"Providing leadership and service to improve teaching and learning by advancing the effective use of technology in education"

San Jose State University
San Jose

1. Hardware: **Mid Tech**
2. Connectivity: **Low Tech**
3. Content: **Mid Tech**
4. Professional Development: **Low Tech**
5. Integration and Use: **Low Tech**

Based on an average of your responses, your school is at the **Low Tech** level.

Low Tech Educational Benefits:

- Master basic skills through older drill and tutorial software

Summary of your answers:

	Questions:	Your answers:
1	How many students per instructional computer?	**(a)** More than 10
2	How long does it take to receive technical support?	**(a)** Takes several days
3	What percent of instructional rooms and administrative offices connected to the Internet?	**(b)** 50% or more
4	What is the quality of your school's connection to the Internet?	**(b)** Direct connectivity on campus and in some classrooms
5	What is the use and availability of other forms of hardware technology?	**(a)** VCRs, cable TV, projection devices, calculators
6	What forms do delivery and format of professional development take?	**(a)** Trainer-led instruction
7	What percent of the technology budget is allocated to professional development?	**(a)** Less than 10%
8	What is the understanding	**(b)** *100% at adaptation

http://www.iste.org/starchart/results.cfm Page 1 of 3

Integrating Information Technology into the School as a Whole

When information technology is integrated into the total school community, what might an observer notice by touring the school, the library, or special areas of the school?

Student behaviors:

- ❑ Students are interested/engaged in learning projects using technological resources rather than using those devices for games/recreation.
- ❑ Students who are usually disinterested in school are engaged.
- ❑ Students are pursuing their own interests as a part of learning activities
- ❑ Because students are handling multiple data sources, they seem naturally headed in the direction of a problem-solving mode of learning.
- ❑ Students seem to be at ease using a variety of presentation technologies.
- ❑ Students are more focused on using the technology as a tool to further their learning than to "dress up" their projects or assignments.
- ❑ Other:

Facilities:

- ❑ Technology can be accessed from a variety of locations throughout the school. This arrangement allows for simultaneous use of technology by individual students, small groups, and large groups.
- ❑ Needed technologies are consistently available.
- ❑ Print resources and computer technologies are integrated into library and classrooms.
- ❑ Technology is available to learners and teachers before and after school, and at noon, in addition to the regular school hours.
- ❑ Other:

Adults:

- ❑ Teachers, librarians and technology specialists are committed to a technology-rich environment and feel comfortable teaching in that environment.
- ❑ Teachers, librarians and technology specialists are coaching learners rather than delivering information.
- ❑ Make use of other NETS standards documents and projects. Looking at the ISTE website and the standards page in particular at http://www.iste.org will give an idea of a number of ways to assess the impact of technology in a school or district.

What's Your Technology Environment Score? Have a disinterested observer do an investigation in your school and give brief findings to an appropriate person.

For other items that could be added to the list above, consult *NCREL's enGauge: 21st Century Skills: Digital Literacies for a Digital Age*. Naperville, IL: NCREL, 2002.

Ripple-Effect Measures[4]

The Library Technology Program At the Organizational Level

Goals

Library Agenda	Technology Plan
• Enhance teaching and learning through technology. • Build and information-rich environment available 24/7. • Build efficient learners.	• Connect every teacher and learner. • Integrate technology into teaching and learning. • Affect teaching and learning positively.

Pebbles to Measure:

1. Information systems emanating from the library are available 24/7 and are reliable.
2. Library information systems are available at the elbow (in the library, the classroom, in the home, and on any technological device owned by the learner).
3. Learners prefer library information systems to full Internet access.
4. Library information systems and tools add to learner efficiency.
5. Enhancement of learning through technology is a part of teacher assessment of student learning.

Justification:

Library information systems provide "smaller," safe, and very high quality information intranets to its clients in contrast to the wild world of the entire Internet. The Lance studies all report the connection between library technology and achievement.

Demonstrate through research and practice that:

- Library information systems are at the elbow.
- Learner efficiency is being affected.
- Library information systems are the first choice with students and teachers.
- Library information systems are indeed "smaller," safe, and of very high quality.

Report:

- Steady improvement over time.
- Improvement related to an initiative.
- That success is already high and is remaining constant.
- Improvement related to organizational policy shifts.

[4] Ripple-effect measures refer to significant measures that are most likely to produce results in achievement and indicate maximum teacher collaboration and organizational effectiveness. Because you have these data, a ripple effect occurs, like throwing a pebble in a pool, triggering many other organizational practices and policies.

Danger Signs Checklist

When Technology Is Not Well-Supported by the Library Program

Students:

- ❑ Students regularly use technology for playing games/hacking/surfing.
- ❑ Students use technology to glamorize projects, but there is little substance.
- ❑ Students merely cut and paste information together for projects—learning very little.
- ❑ Time spent working on a project is so technology-dominated, there is almost no time to learn content.
- ❑ Students are careless and destructive with equipment, software, and lack respect for other students' work.
- ❑ Other:

Teachers:

- ❑ Teachers seem afraid and helpless in the face of technology.
- ❑ Teachers know how to use technology, but don't.
- ❑ Technology is so outdated that students' equipment at home is superior to what's at school.
- ❑ Software upgrades won't work on existing equipment.
- ❑ Other:

Technology:

- ❑ The failure rate (equipment, software, networks, and the Internet) is so high that teachers and students will not risk the time investment.
- ❑ No one person is responsible to see that the equipment, networks, and software are in good repair and operational.
- ❑ There is no technology plan in actual operation, or, it is ignored.
- ❑ Other:

The Bottom Line: What is your Score? The fewer the checks, the better off you are.

Technology: Additional Resources

Available from LMCSource at http://lmcsource.com:

Miller, Nancy A.S. ***Impact! Documenting the LMC Program for Accountability***. Hi Willow Research & Publishing, 2004. — Use this template for Microsoft Excel™ to track the contribution of the library media program in three essential areas: collaborative planning, information literacy, and learning links to state standards. You enter the data into the template and the program takes care of the rest. With just one click, this program will transform that information into charts and diagrams that will show you and your administrator where the emphasis of the library media program lies.

Other Resources:

Johnston, Jerome and Linda Toms Barker, eds. ***Assessing the Impact of Technology in Teaching and Learning: A Sourcebook for Evaluators***. Ann Arbor, MI: University of Michigan, Institute for Social Research, 2002.

National Educational Technology Standards for Teachers: Resources for Assessment. Eugene OR: ISTE, 2003

NCREL's enGauge: 21st Century Skills: Digital Literacies for a Digital Age. Naperville, IL: NCREL, 2002.

Simkins, Michael, et al. ***Increasing Student Learning Through Multimedia Projects.*** Alexandria, VA: ASCD, 2002. See also NWREL products at http://www.nwrel.org/assessment/

Technology Counts - A yearly report focusing on how technology is changing education. At: http://www.edweek.org/sreports/tc

Technology in Schools: Guidelines for Assessing Technology in Education. A publication of the National Center for Education Statistics, U.S. Dept. of Education, November, 2002. At: http://nces.ed.gov/

Administration

Why administration? The way the organization of the library works affects its real contribution to teaching and learning. It can be a fortress no one ever visits, or it can be a busy place from dawn till dark. It can serve the needs of teachers and students or be an island unto itself. It can be a support/supply center or a learning center. It can be just a book room or a print, high-tech, and multimedia environment. Only clerks can staff it or it can be a center of professional coaching for both teachers and students.

And the Research Says. . .

The Lance studies are very clear that certain elements of the library media program contribute to achievement. These elements have been studied in many states of the U.S. and are reported in: Lance, Keith Curry. *Powering Achievement*. 3rd ed. Hi Willow Research & Publishing, 2006. Available from http://lmcsource.com.

Essential Element to Measure:

	Learner Level	Teaching Unit Level	Organization Level
Direct Measures*	• Review Individual Student Test Scores (Compare to library statistics for individual students.)	• Review Classroom Test Scores (Compare to Impact! Collaboration records for those classrooms)	• Review School Wide Achievement Data (Compare to library program statistics each year.)
Indirect Measures**	• Does Your Library Support Learning? • Is Library Staffed by Professional Librarian? • Student/Teacher Use of the Library	• Student/Teacher Use of the Library • Library Activity Log	• Does Your Library Support Learning? • Library Activity Log • How does the LMC Staff Spend Their Time? • Time & Task Tracker • What's Your Library Accessibility Score? • How Often Do Students Come to Library? • Facility Usage of the Library • Library Automation System • Our Data-Driven Library

* Direct measures would be those so close to actual learning that confidence in an impact could be inferred. We have no thermometers to stick in a learner's mouth to gauge actual learning, but direct measures might challenge doubters to prove no impact.

** Indirect measures provide evidence that actions set the stage for, provide an environment for, give support to, enable, help, give encouragement to, mark progress toward, and make change.

Review Test Score Data

Does your library program make a positive difference in student achievement?

Throughout this book we have introduced and discussed many ways to capture data about and from students, teaching units, and organizational levels. On their own, they are typically "indirect" measures of performance. Use this data, however, in conjunction with the widely recognized barometer of student performance, standardized test scores, to correlate your program's impact on achievement, and transforming the evidence into a direct measure.

At the learner level, it may mean that you compare a sampling of student data from high average and lower performing groups with the circulation data, library lesson assessments, and other evaluations you may do for student work in collaborative teaching or specific library programming. Do you find that top performing students on the state's standardized reading comprehension test also belong to the group of students who check out the most books for pleasurable reading? Do the students, who best follow your school's adopted research model, also perform best on the persuasive or expository writing assessments? If so, you may also find that the lowest test scores match to those students who rarely participate in library activities.

At the classroom level, you may wish to analyze classroom academic performance results. Compare performance levels of class groups in which you often teach collaboratively with the teacher compared to those you rarely even see using the library. Keep baseline data then promote working more closely with those lowest performing classes. Check next year's data to see if increased collaboration yields increased student performance.

Certainly, at the organization level, it is important that the school library program be viewed as key to maintained and improved student achievement performance. In an ongoing basis, track program improvements (or losses) compared with overall student body performance on a variety of factors (attendance, content area learning, student engagement, etc.). If you don't make the effort to demonstrate the connection of a strong library program with improved student achievement, who will? Though major research studies among many states have shown there is a positive correlation, your local administration will be much more interested in how your program truly impacts student achievement in your own school community.

Example positive statements:

> *Students who are in the top 10% of performance on the reading comprehension scores (2007) are also in the top 10% of students who checked out the most books from the library (2007).*
>
> *Students who participated in the school media fair (April 2008) performed in the top 25% of the technology skills performance assessment at eighth grade in May 2008.*

Example negative statements:

> *The students who checked out the most library books in 2007 performed in the lowest quartile on their 2007 reading comprehension exam.*
>
> *Students who most often reported planning to drop out of school when they reach a minimum age to do so, also reported the library as their favorite place to hang out at school.*

Does Your Library Program Support Learning?: A Checklist

If the library program is functioning properly, what might an observer see happening?

Teachers and librarians specialists are:

- ❑ Brainstorming a curricular unit.
- ❑ Developing plans, activities, and assessments for a learning experience.
- ❑ Choosing the materials and technologies to support instruction.
- ❑ Working side by side as the unit activities happen.
- ❑ Jointly evaluating the success of the unit.
- ❑ Engaging in staff development to refine the collaborative process.

Students are:

- ❑ Working in a bustling learning lab atmosphere on projects, problem solving, portfolios, presentations, and assignments.
- ❑ Comfortable in using a wide variety of information sources and information technologies from print to multimedia to digital.
- ❑ Sharing their findings in group-related activities.
- ❑ Interested and excited about learning and eager to begin the next project.
- ❑ Working by themselves quietly on projects or research.

Facilities are:

- ❑ Functioning to support individuals, small groups, and large groups for quiet individual study, information gathering, busy production activities, group work, and presentations as the collaborative process begins to produce results.
- ❑ Rarely empty.

Library Networks are:

- ❑ Brimming with quality information streaming throughout the library, into the classrooms, and on into the home.
- ❑ Being used and used and used.
- ❑ Reliable.

What is your score? How many of the characteristics were observed? What plans for improvement should be made?

Is the Library Staffed by a Professional Librarian?

Budget cuts have extended to affect severe cuts in staff for school libraries. This may be especially true for schools where a conscious effort to "share the evidence" that strong library programs led by licensed library professionals achieve more has not been a habit. It is never too late to start gathering and sharing evidence. This may be useful to preventing a loss of appropriately licensed personnel or to, happily, regaining such positions. Use the findings of *Powering Achievement* to set a standard for strong library programs led by strong librarians.

Keep track of local data to support the improvement of achievement when professional librarians engage in the education of your students as well as note any declines in achievement if professional librarian positions are lost. Reading scores are particularly suited for this purpose.

Library clerks and parent volunteers cannot be expected to perform or know all that is needed to provide achievement enhancing programming in the school library. All too often their role is minimized to materials management or student supervision. These services are also needed so a truly ideal situation includes a library professional and support staff to provide full services to a school population.

Professional librarians, caught in a particularly rigid schedule (to provide classroom teacher planning time) also have a more difficult time engaging in integrated efforts to boost student achievement. Flexible scheduling helps librarians find time to collaborate with classroom teachers toward common learning goals, a winning combination for student achievement of content knowledge and life-long information skills.

No matter your current program situation, there is always room for improvement. Capture data regarding the staffing and scheduling of your library program to use for school improvement planning.

General baseline data to capture regarding library staffing:

School: _____ School Year: _____

School student enrollment: _____ Number of Teachers: _____

Number of certified (licensed) school library media professionals: _____

Number of work hours per week per professional: _____

Percentage of professional librarian's work time on a fixed schedule: _____

Percentage of professional librarian's work time on a flexible schedule: _____

Number of clerical or library assistants (unlicensed): _____

Number of work hours per week per support person: _____

Average number of library volunteer hours weekly: _____

Student/Teacher Use of the Library

Having a well-stocked and well-staffed library is, of course, only part of the equation toward a great library program that supports student achievement. Another consideration is the usage of the library by how many students and for what purposes on a regular basis. A fully integrated library program will yield a library that is consistently busy with students and teachers visiting individually and in class groups throughout the day, week after week. While circulation records can capture data about what is checked out, you may find that much interaction with library resources happens in the library or even online. Develop some custom instruments that will help you capture just who, how many and for what reasons teachers and students are using your library and your library professional's services. Some questions you might wish to answer include:

- What percentage of the total student body visits the library on a monthly basis?
- What percentage comes as part of a class group?
- What percentage comes independently?
- What percentage of the faculty visits the library on a monthly basis?
- What percentage of the total student body check out reading materials each week?
- How many books per student are checked out each year? (average for total school enrollment)
- How many materials are not checked out but are used in the library each week?
- What percentage of faculty collaborates with a professional school librarian each year for teaching at least one curriculum unit?
- How many students come to the library just to sit and visit with their friends but don't use library resources while there?
- How many teachers bring their classes to the library each week? (percentage of total)
- How many teachers only come to the library when there is a faculty meeting to be held there?

The data gathered might be useful in establishing a link between library use and achievement by students and targeted class groups. If use by students or class groups increases next year and so do text scores, there may be a positive correlation in the making.

What other data questions might help you paint a descriptive picture of your library's use by students and teachers?

Library Activity Log

School City of Hammond

Library Activity Log[1]

School **Date: From** **to**

	Working with Students (Individuals, Groups, Classes)	Collaboration with Teachers	Curriculum Support	Tech Support/ Troubleshooting	Library Administration	Library Operations	Professional Development	School Committees	TCR/ Curriculum Resource **Yes/No**	Other
Monday										
Tuesday										
Wednesday										
Thursday										
Friday										
TOTAL HOURS										

Estimate time in half-hour increments. In case of absence, keep the log after returning to work to total five days.

Working with Students -- Working directly with students individually, in groups, or in classes to instruct, assist with research, etc.
Collaboration with Teachers -- Planning, preparing, assessing, following up activities with individual teachers or teaching teams.
Curriculum Support -- Gathering materials, bibliographies, URLs; suggesting materials, resources, TCR Connections, etc.
Technology Support / Troubleshooting -- Support both inside and outside the library of computers, printers, televisions, etc.; software support
Library Administration -- Collection development, book reviews, materials selection, ordering, cataloging, database maintenance, supervising media aide, etc.
Library Operations -- Working at the circulation desk; shelving returned materials; labeling, stamping, etc. to prepare materials for the shelf.
Professional Development -- Attending workshops, training sessions, professional reading, etc.
School Committees -- Curriculum Alignment Project, PL 221, school plan teams, grade-level meetings (Title 1), etc.
TCR/Curriculum Resource -- Using TCR Connections/Curriculum Resource activities in planning, directing teachers to activities for their subject area(s) [Y/N]
Other -- Before and after school hours, weekend functions

Number of classes in the library		Total number of students in classes		Name
Circulation		Number of sign-ins		
		Total number of students		

[1] Thanks to Ruth Fries, Patricia Jaracz, Judith Marzocchi, Judith Thompson and Dawn E. Vanzo-Gessler of the School City of Hammond Data Collection Committee.

How Does the Library Staff Spend Their Time?

What professionals and support staff do with their time each day establishes the priority of their contribution to teaching and learning. For example, one could spend all day handling circulation, but would that contribute to achievement? One could repair computers and trouble shoot throughout the building, but does that contribute to achievement?

Question: In a typical day, how do professionals and support personnel spend their time? And, does the result of our analysis match the program goals of the library?

Method:

1. Set up a chart similar to the one below with the tasks you wish to track.
2. Give each of the staff a pad of small sticky notes; each a different color. Each sticky note is worth 15 min.
3. Several times a day, have each staff member post sticky notes for their estimated time on each task.
4. Do this for several "typical" days..

Here is an example:

How Does the library Staff Use Its Time?	
Library staff as teachers (direct instruction with students and or teachers)	●●●●●●●●●● VVVVVV
Library staff as instructional partners (collaboration planning, teaching, and assessment of learning units)	●●●●●● V
Library staff as information specialists (reference work, personal assistance to students or teachers)	●●●●●●●●●●●● VVVVVV
LMS as program administrators (collection development, operations, discipline, ordering, cataloging, technology management)	●●●●●●● VVVVVVVVVVVV
Non-Library duties	●●●● VVVVVV

Questions to ask:

- How are we spending our time each day?
- How could we focus our attention and time on what is making the most contribution to teaching and learning?
- What tasks could we eliminate that would give us more time to do the important things?

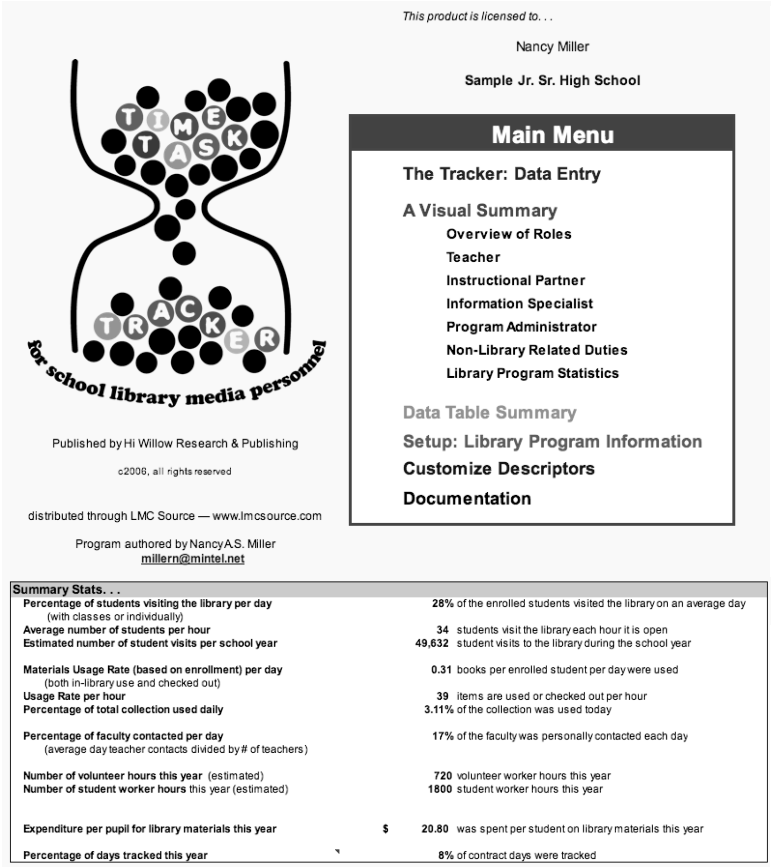
On the next page read about an electronic data tool, *Time & Task Tracker*, that will help you track extensive data about how you spend your days in the school library.

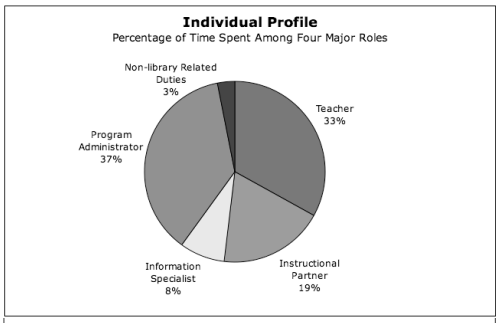
Time & Task Tracker[1]

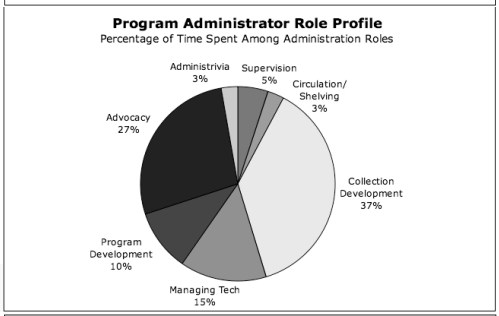
An Excel™-based tool for School Librarians

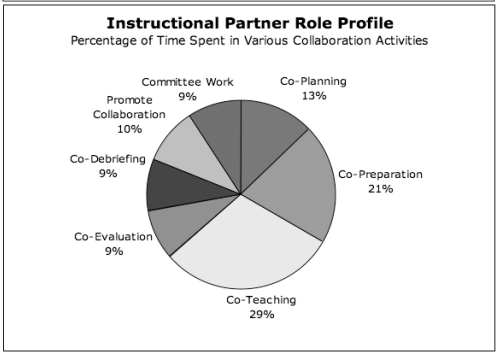
This excel-based program, developed by Nancy A.S. Miller, is helpful in documenting data from an action research project to determine school library media specialists (and / or support staff) spend their days. The author recommends tracking at least 15 days of activities by counting minutes spent among the roles of teacher, instructional partner, information specialist and program administrator. The recordkeeping also includes some basic program statistics for usage of the library and professional contacts with students, teachers as well as usage of materials. Once the data is input, the program automatically compiles the data into colorful and complete reports, ready to view, print and deliver to appropriate audiences.

Screen shots below show some of the pages and charts of the *Time & Task Tracker* program.









Time & Task Tracker is available from LMC source (http://www.lmcsource.com).

[1] Miller, Nancy A.S. Time & Task Tracker. Hi Willow Research & Publishing, 2005.

What's Your Library Accessibility Score?

Is Your Library Ready for Collaboration?[2]

Standard: The facilities, resources, and staff of the library are accessible throughout the school day to the entire school.

Access to information, information technologies, and library media must not be a barrier to teachers and students lest the collaborative environment be squelched. Use the following checklist to measure whether media program is providing the flexible access needed by students and teachers.

Library facilities:

- ❑ The library is not scheduled for weekly visits by any class, but all classes have multiple opportunities each week for individuals, small groups, or large group visits.
- ❑ Teachers might bring the class to the library during a project and at other times the entire class does not come for a few weeks.
- ❑ Library facilities are arranged in such a way that groups and individuals may be working simultaneously without disturbance.

Summary: Is this library facility accessible throughout the school day?

Classrooms:

- ❑ Classroom book collections are being rotated in and out of the library collection to provide attractive and interesting books for students at all times.
- ❑ The classroom computers are connected to the Internet.
- ❑ Classroom computers are connected to information data sources from the library.
- ❑ Video and electronic materials are available from the library for classroom use for short- or long-term use.

Summary: How connected are classrooms to the print and digital resources of the library?

[2]Adapted from: Loertscher, David V. and Connie Champlin. *Reinventing Indiana's School Library Media Programs in the Age of Technology*. Hi Willow Research and Publishing, 2001, p. 29.

Access to the library as an extension of the classroom (librarian attention not required):

- ❑ Individual students can be sent to the library at any time during the day for independent use and to obtain materials, equipment, use production facilities, or computers.
- ❑ Small groups can be sent to the library to use materials and information technology.
- ❑ The teacher can schedule a large group to use the library for independent use as facilities permit.

Summary: Is the library facility an extension of the classroom even when the librarian is unavailable?

Access to the library as an extension of the classroom (librarian attention required):

- ❑ The teacher assists individual students in getting on the library media calendar so that the librarian can give the student undivided attention.
- ❑ Small groups are scheduled so that the librarian can work with the group.
- ❑ Large groups are scheduled so that both the classroom teacher librarian can work together as a team.

Summary: Is the librarian available as a second teacher for the class?

Accessibility Score: Considering the number of items checked above and the summaries, how accessible are the facilities, information resources, and the library staff as an extension of the classroom?

How Often Do Students Come to the Library?

Sometimes it is important to check who actually uses the library in a given week. For example, in an elementary school, students may come once a week on their scheduled time, but how often do they come in addition? In a flexibly scheduled school where students can theoretically come at any time, it is good to do a check on how many and who show up on a regular basis. Some librarians have automatic counters at the entrance so that there is some count available every day. Most do not.

The following example was created by a librarian some years ago who needed some measure for an accreditation visit. The school had recently changed their schedule from fixed visits to flexible ones, so there was interest in seeing whether there was traffic in the library.

Here is the simple method used:

- For each class the librarian wished to measure (she selected random classes at various grade levels), a simple file folder was made for each teacher participating.
- The file folder contained a graph with the teacher's name and the names of each student.
- For one week (announced to the class by the teacher), if you came to the library once or many times each day, you were to find the file folder and mark by your name that you attended.
- The librarian then analyzed the folders and made a report.

Teacher name _____ Week of _____

Directions: Every time you come to the library, make a tick mark. If you come more than once make a tick mark every time you come that day

	Monday	Tuesday	Wednesday	Thursday	Friday
Student 1					
Student 2					

Result: The librarian we observed found that all students not only came more than once a week during their "spare time" but some came as many as five times a day.

What is your attendance pattern?

Organization Level, Indirect Measure

Facility Usage of the Library

Network Central (the library), the hub of the school, is still an important element in the learning laboratory concept of an entire school. Use the following checklist to determine if the library media center space is really supporting a learning laboratory operation in your school.

- ❑ Individual students can be accommodated throughout the school day whether or not other groups are using the library media center.
- ❑ Small groups can be working simultaneously in the library media center using materials, researching, producing, planning, and browsing.
- ❑ Large groups can be accommodated simultaneously without hindering the usage of the library media center by small groups and individuals.
- ❑ The library media center is "Network Central" for all types of materials, technologies, and networks.
- ❑ The central library media center is a pleasant place to be; students and teachers are attracted there.
- ❑ The arrangement of areas of the library media center allows various groupings of students to work and research simultaneously in a busy, purposeful atmosphere without bedlam.
- ❑ Teachers have space in the library media center to "headquarter" temporarily as a base for teaching and research.
- ❑ The automation networks and various information systems of the library media center extend outward into the instructional areas of the school and on into the homes of students.
- ❑ The library media center is open into the evening hours.
- ❑ Other:

What's your facility score? How many features are true in your school? How many need improvement? How many are missing? What is your improvement plan?

Library Automation System
Mine Its Data!

Many librarians print out various reports for administrators from the library automation system. The most common is, of course, circulation. But, what other reports are available?

Haul out the automated system manuals. Look under reports. Investigate the possibilities. Print a variety of reports and see if they give you information you need to report or would be useful in your collection development plan.

Perhaps the automation vendor has a workshop you can attend that will make you aware of the possibilities. There probably are more than you ever guessed existed.

Possibilities:

- Circulation
- Circulation by class or grade level
- Circulation of parts of the collection
- Average collection age
- Average collection age of collection segments
- Size of the collection
- Size of various segments of the collection

What other reports might you generate from your automated circulation or automated catalog? How might you combine this with data in your school's student information system or data warehouse to paint a clear picture of the connections between your library and student achievement?

Our Data-Driven Library: An Example

Data-driven practice requires strategies to monitor how well programs put in place are operating. Below are several examples where data are collected at the learner, unit, and organizational levels.

Action	Learner-level Evidence	Unit-level Evidence	Organizational-level Evidence
Librarian added information literacy items to class project rubric.	Learners score themselves; librarian scores each student on information items; teacher uses total score.	Librarian and teacher compare progress of class with previous unit experience.	Experience logged as part of policy shift to teach information literacy on a "just-in-time" basis.
Teachers and librarian establish a book-bag program with K-2 learners; Each learner to read two books per night.	Learner and parent track amount read. Mini reading tests every month result in a reading progress chart.	Class progress charted and compared against expected gains; state reading scores monitored.	Skyrocketing use of books documented. A supplemental budget is provided to build the program.
Six high school AP chemistry students are taking a course by distance learning with other seniors across the state.	Local teacher coach has student report personal progress regularly monitoring attitude, assessments, and interaction with fellow students.	Teacher of record monitors group progress noting comparative progress and completion rates as compared with other DL courses.	Data on all student progress and completion rates via DL technology.
Librarian works with 7th grade science teachers to plan semester units during a week-long summer institute.	Assessments of student learning planned to track individuals with the goal of 100% mastery of state science standards for the semester.	Group performances will be compared against previous two classes when teachers worked without involvement of librarian.	Tracking of collaborative activities into a previously unserved curricular area is noted and reported.
After installation of a LMC home page connected to the state information database collection, the librarian decides to compare users in classrooms that have the LMC page as default vs. those classrooms where the LMC home page is one or two clicks down.	Data clicks are measured by terminal rather than by individual students within each classroom.	Data clicks are combined for each classroom and compared across classrooms.	Decisions are made about the position the LMC homepage will have on computers in the classrooms. Results are compared across schools in the district that have similar technology.

Create your own form. On the next page is a blank form you may use for your own library program assessment notes.

Our Data-Driven Library

Action	Learner-level Evidence	Unit-level Evidence	Organizational-level Evidence

School: _____

Date of activities: From _____ to _____.

Administration: Additional Resources

Available from LMCSource at http://lmcsource.com:

Lance, Keith Curry and David V. Loertscher. ***Powering Achievement: School Library Media Programs Make a Difference: The Evidence***. Hi Willow Research & Publishing, 2005. — The third edition of this standard work reviews the Lance library impact studies and provides resources librarians can use in presentations. In addition, there are many discussion starters to help librarians conduct focus groups centering on various aspects of the library media program that boost achievement.

Loertscher, David V. ***Reinventing Your School's Library in the Age of Technology: A Guide for Principals and Superintendents.*** Hi Willow Research & Publishing, 2003. — This guide is designed for the school administrator who is wondering if a school library is really needed. Each page in this invaluable tool is designed as a handout that a school librarian can use with administrators, at a workshop, a planning session, or with a group of parents. Many pages contain checklists to stimulate thinking and planning. Two threads run through all sections - budget implications and assessment. Numerous graphic models present a concept succinctly for instant understanding.

Miller, Nancy A.S. ***Time & Task Tracker for School Library Media Personnel***. Hi Willow, 2005 — Administrators often want to know what the library media professional and support personnel do in the library. This Microsoft Excel template allows both professionals and support staff to track the number of minutes on random days spent on numerous tasks aligned with Information Power. This spreadsheet will draw amazing graphics analyzing how both professionals and support personnel spend their day. **Time and Task Tracker** is a very powerful tool in demonstrating the difference between the roles of professional and support personnel.

Other Resources:

Collecting the Data: Templates and Resources for the School Library Media Specialist: A grant provided by the IN DOE supported the development of tools and strategies that school librarians can use to evaluate and promote the School Library Media Program. Using *Information Power 2* as a guiding document, tools are available in four main areas: reading, collaboration, collection development, and program perception. www.nobl.k12.in.us/media/NorthMedia/lms/data/index.htm

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