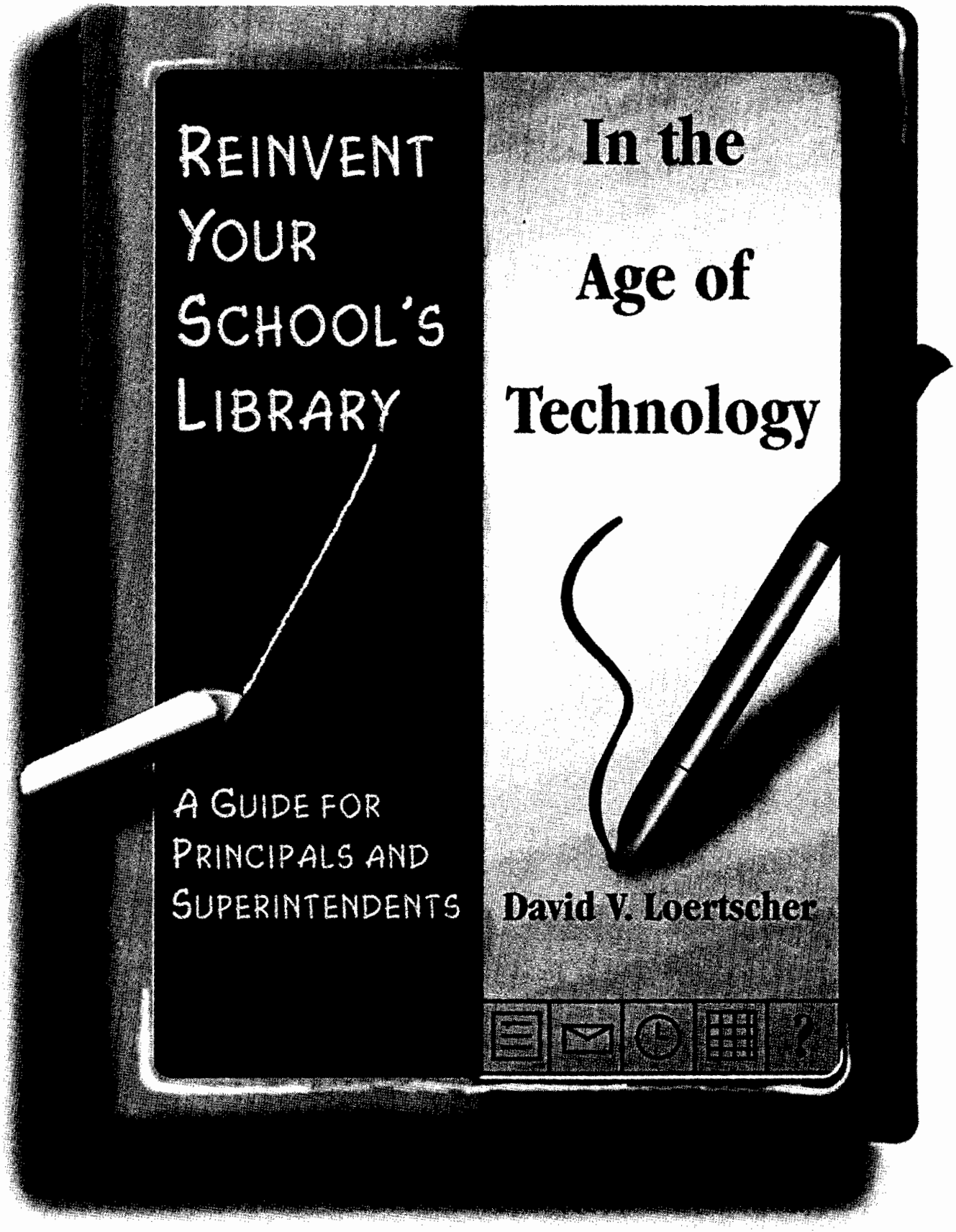
REINVENT YOUR SCHOOL'S LIBRARY
In the Age of Technology
A GUIDE FOR PRINCIPALS AND SUPERINTENDENTS
David V. Loertscher

REINVENT YOUR SCHOOL'S LIBRARY IN THE AGE OF TECHNOLOGY

A Guide for Principals and Superintendents

California Edition

David V. Loertscher

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Contents

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INTRODUCTION

The need to reconceptualize school libraries has never been greater. The rush of technology has caused some to ask, Is a school library needed?— Is any library needed? Isn't it all on the Internet? Regular library and Internet users understand the benefits of integrating all forms of information technologies into a full-service organization with human interfaces as guides to the best and most practical information sources. In schools recently wired and upgraded for extensive technology use, administrators understand that the immense investment must translate into improved learning opportunities—and that key people make it happen!

This volume has been designed as a quick shortcourse for administrators who want to maximize the impact of all information technologies in the support of teaching and learning. Thus, this slim volume concentrates on program — not the wiring.

The book is divided into five main sections that discuss:

1. Collaboration between the library media teacher and the teaching staff,
2. The library support of reading,
3. Enhancing learning through technology,
4. Building information literacy, and finally,
5. The information infrastructure needed.

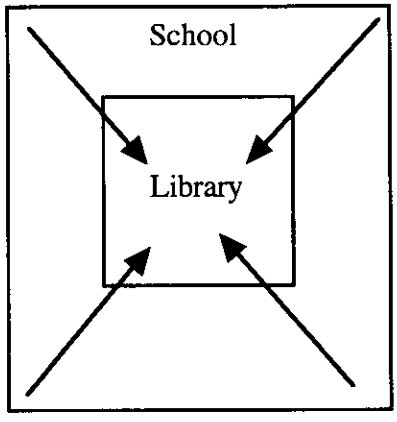
Within each section, pages have been designed in such a way that each can be used as a handout for a workshop, an interview, a planning session, or for a group of parents. Many pages contains checklists to stimulate thinking and planning. Two threads run through all sections — budget implications and assessment. Each of these topics is summed up at the end of the volume. Feedback to the author is appreciated at [DavidL@csn.net] or to the publisher.

A New Vision

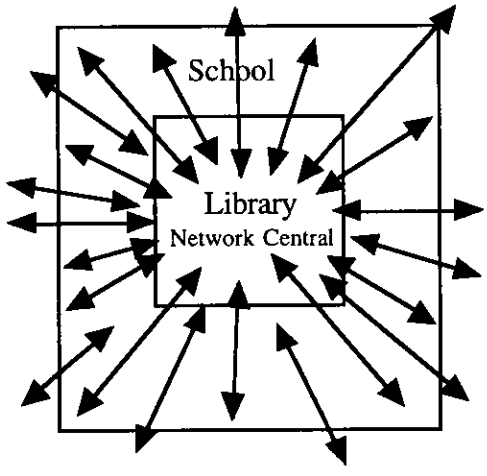
Twice in this century, school libraries have undergone a major redesign. The first was in the 1960s when book libraries had to be rethought to include a new wave of audiovisual devices and software. The second began in the 1980s with the proliferation of the microcomputer, computer networks and finally the Internet. The first redesign required only a shift in contents. The second requires an entire rethinking.

We have usually thought of the library as the "hub of the school," a place where everyone comes to get materials and equipment. Now, however, in the age of technology, the library becomes "Network Central" with its tentacles reaching from a single nucleus into every space of the school and on beyond into the home. Where we once thought of the library as a single learning laboratory, now the entire school becomes a learning laboratory served by Network Central. It becomes both centralized and decentralized at the same time.

OLDER LIBRARY CONCEPT



NEWER LIBRARY CONCEPT



Traditional	**New**
Print rich	Information rich in every format
Print and AV oriented	Multiple technologies
Centralized (one location)	Centralized and decentralized simultaneously
Rigidly scheduled	Flexibly scheduled
Single person staff	Professional and technical staff
A quiet, almost-empty place	A busy, bustling learning laboratory

With the advent of high technology and sophisticated networks, many schools have approached high technology as if it were separate and distinct from "the library." But after the wires are in and the equipment in place, it soon becomes evident that materials and information merely have new paths to take, while the concept of a vast store of materials and information poised to serve teachers and learners named the library, the library media center, or Network Central remains intact.

Successful Students in the Age of Technology

What type of person is likely to be successful in today's information-rich and technology-based world? What type of student is likely to be successful in the world of the future insofar as we can foresee that world?

When an exemplary library program is in place and in the harness sharing fully in the educational process with teachers, each young person can be equipped with:

Reading Literacy:

1. An Avid and Capable Reader.

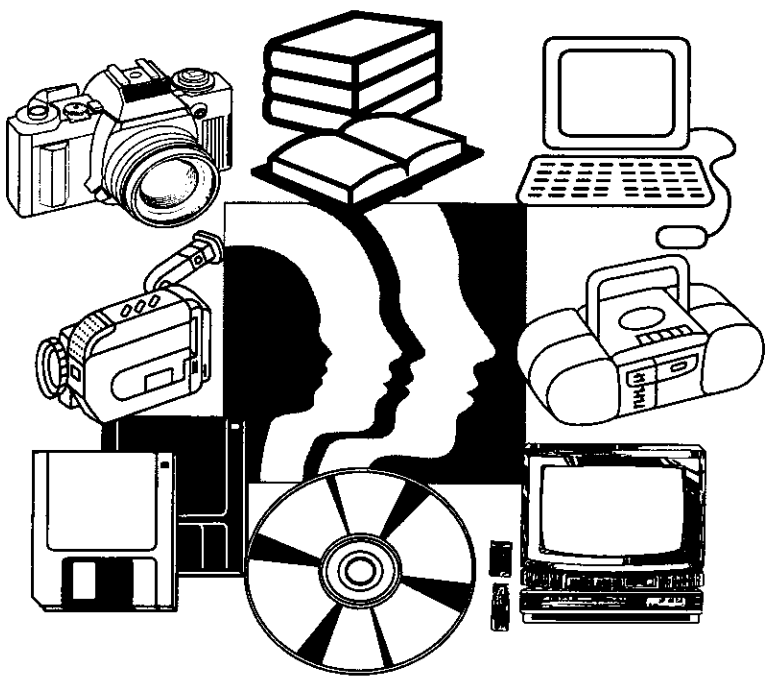
Technology Literacy:

2. A Skilled User of Technology Tools.
3. An Enhanced Learner.

Information Literacy:

4. An Organized Investigator.
5. A Critical Thinker.
6. A Creative Thinker.
7. An Effective Communicator.
8. A Responsible Information User.

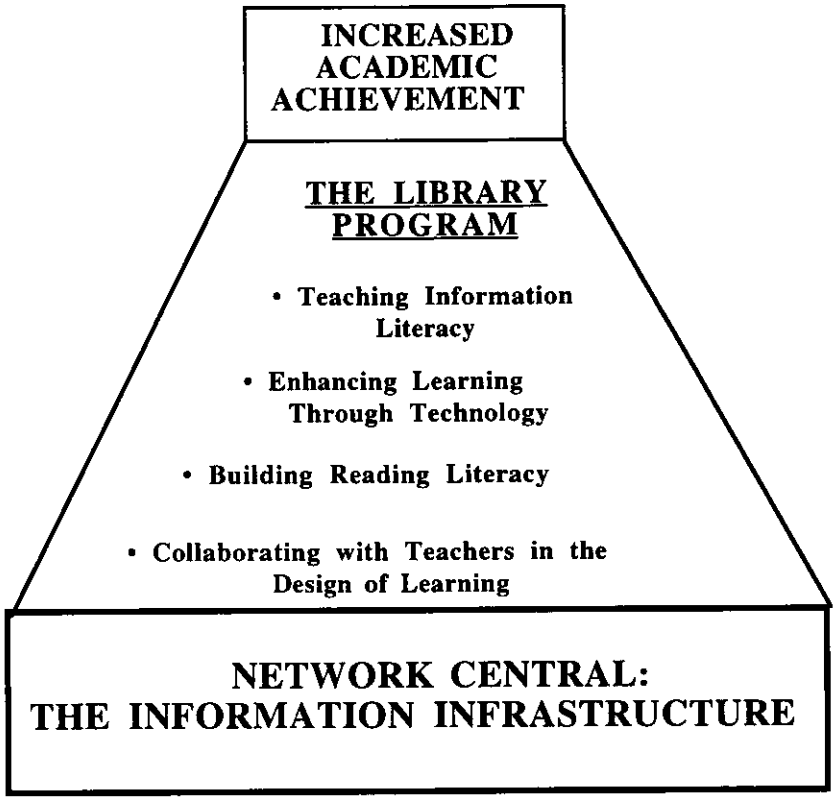
If you want this type of student, you need the type of library envisioned here!



Reinvent Your School's Library in the Age of Technology; c. 1998; 800-873-3043

The Library as a Focal Point to Achieve Student Success

To stimulate every student to reach their potential in the information world, the library staff concentrate on four major program areas sitting atop the school information infrastructure. These four central program elements are the foundation of increased student achievement.



- **Network Central: The Information Infrastructure** in the library provides the technological foundation for delivering materials and information in all media formats. It is composed of the wiring, the equipment, staffing, budget, facilities, repair and maintenance for every kind of technology including print, audiovisual, video, and digital.

- **The Library Program** is a tool for using all the technologies in such a way that teaching and learning are affected in major positive ways.

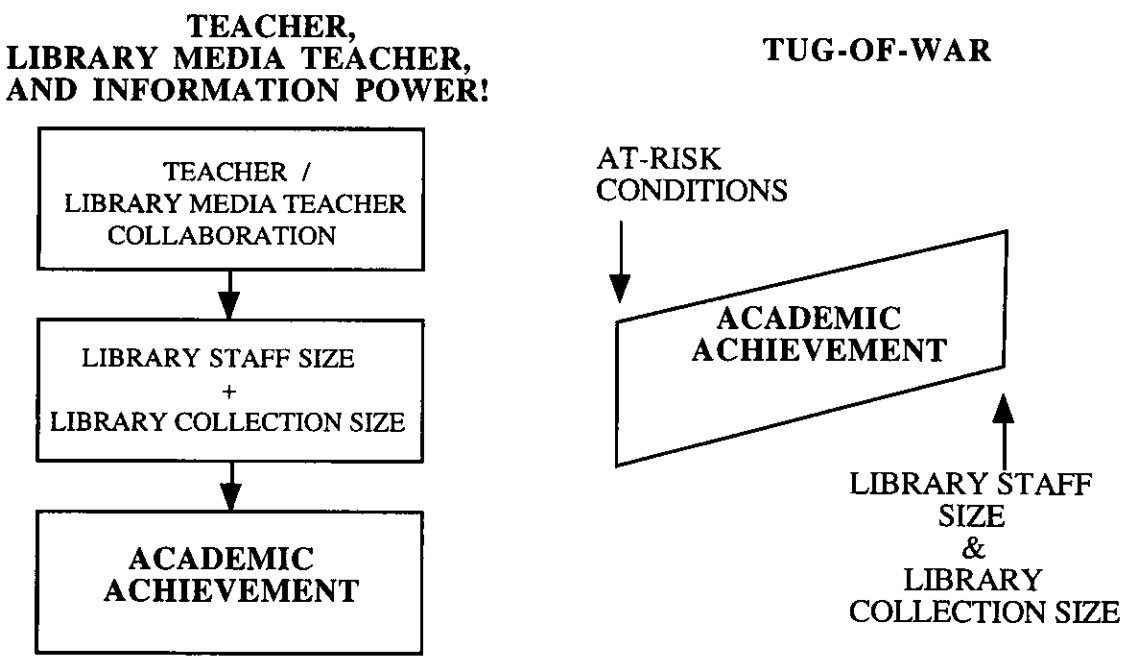
- **Increased Academic Achievement** is the outcome. While academic achievement is one central thrust, there are a host of other personal benefits to a student and teacher who uses technology and information well such as becoming a lifelong reader, learner, successful seeker of information, building career potential, among others.

The Colorado Study:[1]

The Connection Between School Libraries and Academic Achievement

Three researchers at the Colorado State Library were interested by the information released in 1987 by School Match, a company helping business executives relocate, that the best predictor of a good school was a good school library. The researchers planned and carried out research using data from 221 schools in Colorado; they compared data on student success, school expenditures, at-risk populations, teacher-pupil ratio, qualifications of the teaching staff, and total expenditures per student with characteristics of the school libraries in those schools.

The study, published in 1993, showed that the library was a predictor of academic achievement. Specifically, the size of the library staff and the size of the library collection (all media) predicted academic achievement. The data also suggest that the collaboration of the library media teacher with teachers linked with the large collections were key factors for success. Even when at-risk factors were compared with the strength of the library factors, there was a fascinating tug-of-war with the library exhibiting a major positive influence.



[1] Lance, Keith Curry, Lynda Welborn, and Christine Hamilton-Pennell. *The Impact of School Library Media Centers on Academic Achievement.* Hi Willow Research and Publishing, 1993. (P.O. Box 720400, San Jose, CA 95172-0400)

COLLABORATION WITH TEACHERS IN THE DESIGN OF LEARNING

If you want to restructure a school for student success, start in the library. The hopes and dreams of many educators focus on making learning more relevant, more participatory, more inquiry-based, and more exciting to young people and at the same time, translate the shift in focus to higher academic achievement. Such behaviors are easily created in a school having an excellent library program, but only when the library program is an integral part of the teaching and learning process.

What happens when the library media teachers become collaborative partners with a teacher or a group of teachers? What would an observer see happening in the library and in classrooms served by that library?

Collaboration Observational Checklist

Teachers and library media teachers 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, busy library and in the classroom on projects, problem solving, portfolios, presentations, assignments, and inquiry.
- ❑ Comfortable in using a wide variety of information sources and information technologies.
- ❑ Sharing their findings in group-related activities.
- ❑ Interested and excited about learning and eager to begin the next project.

Facilities are:

- ❑ Planned and function 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.

What Is Teacher/Library Media Teacher Collaboration?

- **Two partners, the teacher and the library media teacher, team to exploit materials, information, and information technology to enhance a learning activity.**

In a maze of technologies, information sources, pressure to foster student achievement, the need to involve students in active learning, and the need to see that every student–no matter the cultural, language, or gender background–succeeds, teachers often feel overwhelmed. They have much at their disposal—books, computers, video, the Internet, and other technologies—but few know how to weave such technologies into effective learning activities. Teachers who are "early adopters" jump in and experiment, but the majority of teachers hesitate, ignore, or postpone using technologies that have no track record in their own teaching repertoire. Enter the library media teacher. Consider what might happen when two professionals, not just one, join forces to design learning experiences:

- Plan goals and objectives of the unit.
- Complete preparations for the unit.
- Jointly teach the learning activities.
- Utilize technology to achieve learning objectives.
- Assess learning and the learning process.
- Assess the materials, information, and information technology used.

Such collaborative learning experiences can be a few days in length, several weeks, a semester, or even a year-long project. The teacher might be a single person, a small group of teachers, teachers from several disciplines, a subject department, a grade-level team, or the faculty as a whole. Other specialists and the students themselves may be participants in the collaborative process.

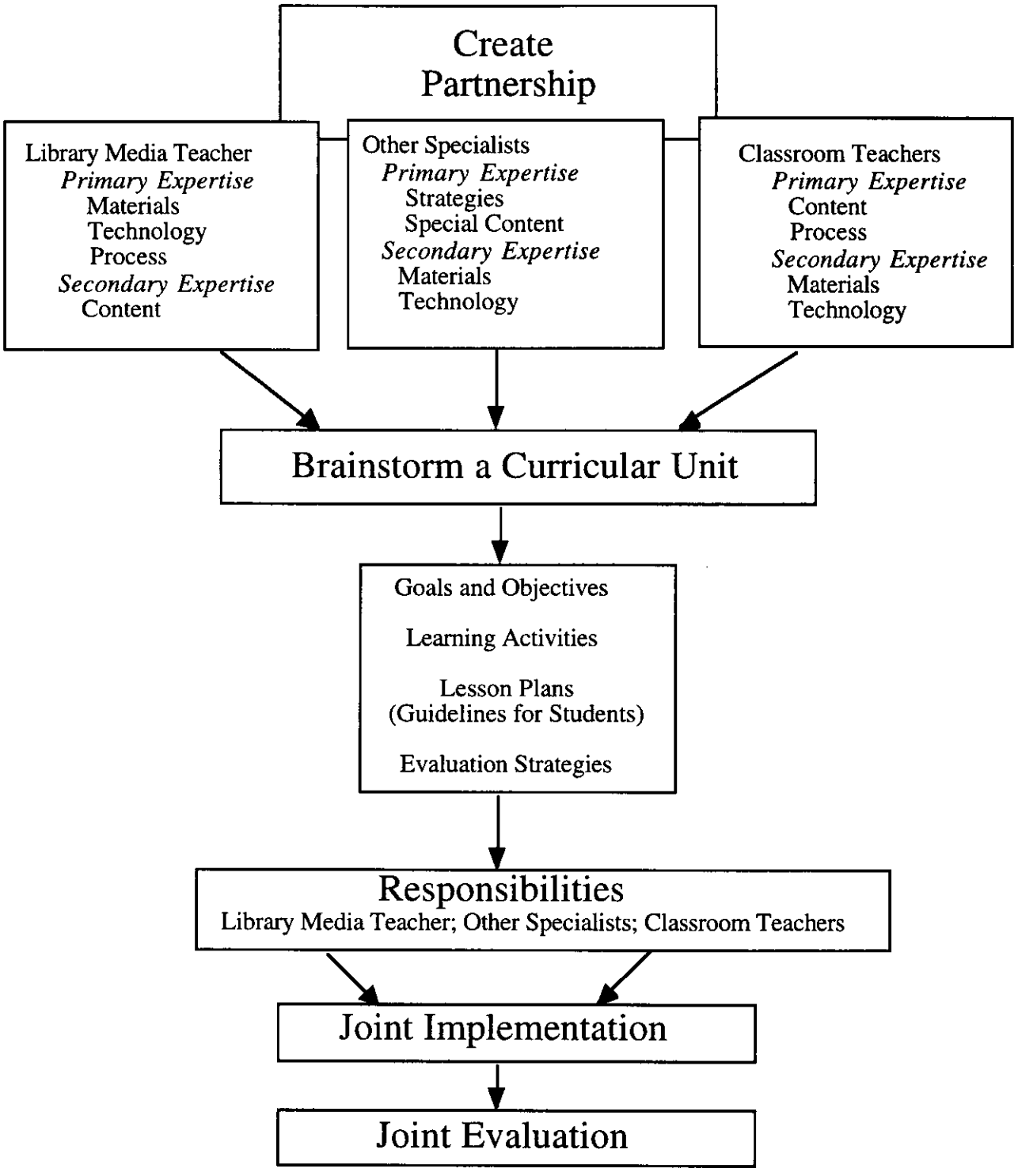
- **The library media teacher holds a unique position as a valuable asset in the collaborative process because this person has:**
  - Knowledge of the curriculum.
  - Education (library media teachers hold teacher credentials plus a library media teaching credential of 30+ semester hours).
  - Experience.
  - Tools and materials expertise (knows the right tool and information source for the right person at the right time).
  - Knowledge of techniques for using technology to enhance learning.
  - A repertoire of successful practices with a wide variety of teachers, students, and technologies—thus serving as an idea fountain.
  - Knowledge of student achievement over time.

- **Principals and superintendents encourage effective collaboration and monitor its progress.**

Encourage teachers and library media teachers to use a planning form that records their collaborative experience. In fact, administrators, as the instructional leader of the school, might participate in the experience with new teachers or reluctant teachers. Use the double-sided form or a variant on the following four pages as a vehicle in the collaborative process.

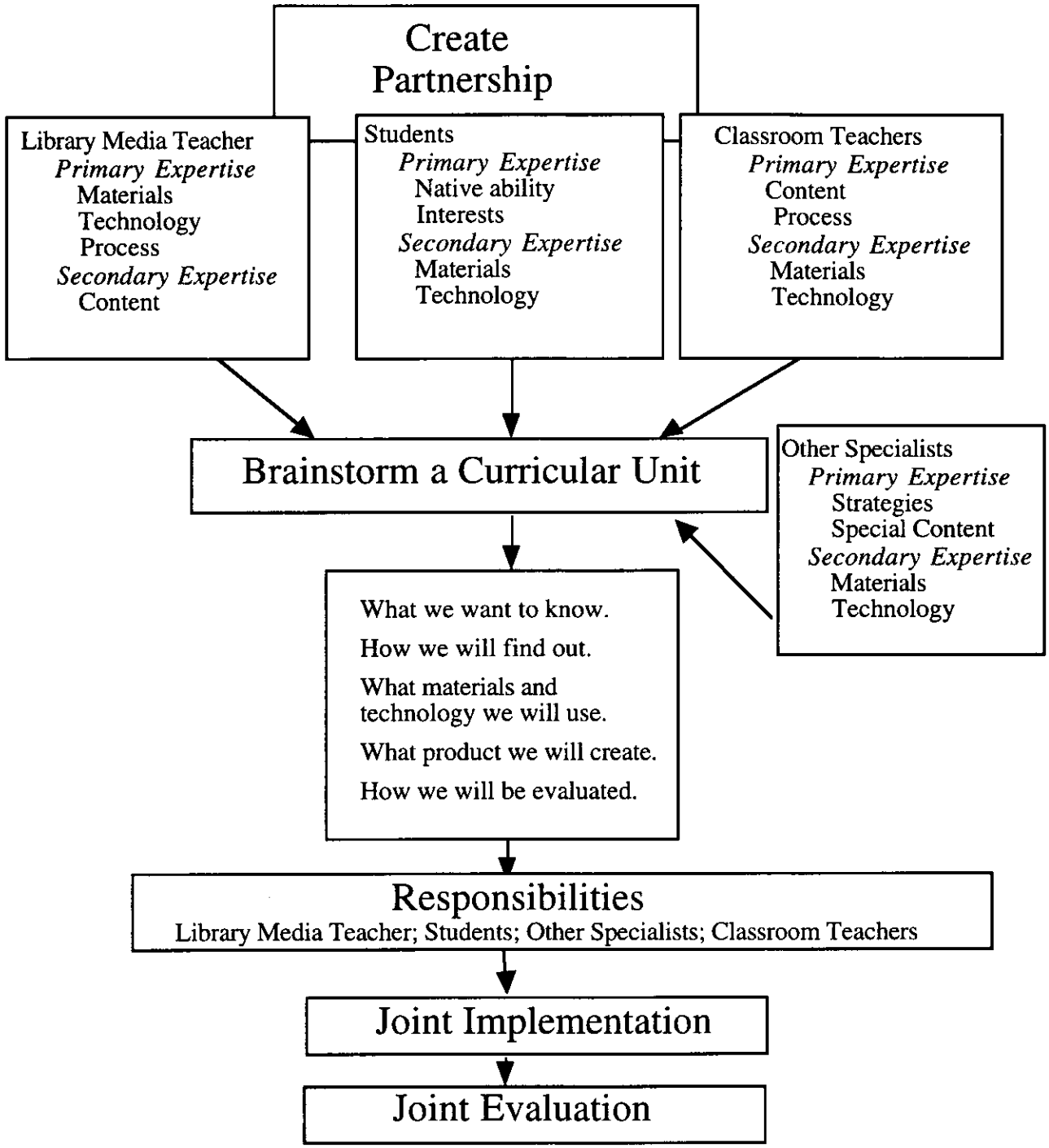
As instructional leaders in their schools, principals can use the collaborative process illustrated in the balance of this section to monitor the effectiveness of the program. Administrators are encouraged to participate as a collaborative team member once a semester as a very effective monitoring technique.

Collaborative Planning (Traditional Method)



Reprinted from California School Library Association. *From Library Skills to Information Literacy: A Handbook for the 21st Century*. 2nd ed. Hi Willow Research and Publishing, 1997, p. 35.

Collaborative Planning (Constructivist Method)



Reprinted from California School Library Association. *From Library Skills to Information Literacy: A Handbook for the 21st Century*. 2nd ed. Hi Willow Research and Publishing, 1997, p. 36.

Collaborative Unit Planning Sheet

Teacher: _____ **Library media teacher**: _____
(could be teachers; teams)

Content area: _____ **Unit of Study**: _____
(could be interdisciplinary)

Unit planning began (date):_____ **Unit ended (date)**:_____

Goals and Objectives of the Unit:

Proposed Learning Activities and Products:

Responsibilities (for each, mark T= Teacher, LMT= library media teacher; SP = Specialist; 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 LMT taught)

Print p. 12 and 13 back to back and then attach additional sheets if needed.

Teacher/Library Media Teacher Evaluation of a Collaboratively Taught Unit

(TO BE FILLED IN AS A TEAM)

Unit title: _____ Total Time spent by LMT:_____ # Students affected ___

What worked well in the unit?

Suggestions for improvement:

What information skills were integrated into the unit? (Time spent by LMT:____)
(as a subset of the total time listed above)

From both the teacher's and library media teacher's point of view, 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?

How well did the library collection respond to the unit objectives?

Scale: 5 = excellent; 4 = above average; 3 = average; 2 = below average; 1 = poor

_____ Diversity of formats (books, audiovisual, electronic)?
_____ Recency (books and other materials up to date?)
_____ Duplication (enough materials for the number of students taught?)
_____ Reading/viewing/listening levels meet students' needs?
_____ Average of above ratings

What materials/technology will we need if we are planning to repeat the unit again?(add a list)

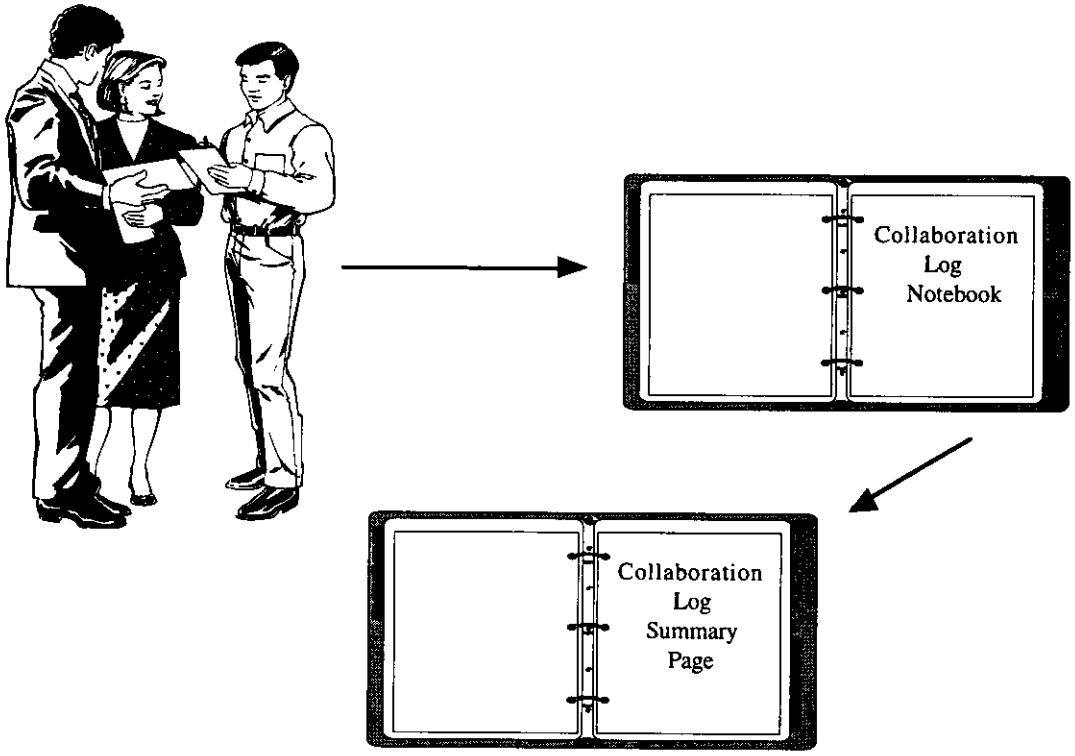
How Collaborative Activities Can Be Recorded

Idea: Create a Collaboration Log.

Who: The library media teacher and classroom teacher teams.

Activity: Each time there is a major collaborative learning experience jointly planned, executed, and evaluated by the library media teacher and classroom teachers, do the following:

- Ask that **collaborative unit planning sheets** (pp.12-13) be filed in a three-ring notebook in a convenient place in the library and organized in some sensible fashion. Only fully developed collaborative activities should be recorded — not every interaction between the library media teacher and the teachers.
- As the **first page** in the notebook, **a collaboration log summary page** maps the collaborative activities and serves as an index to the whole. See the example on p. 15.
- The **collaboration log notebook** lists the major collaborative experiences throughout the year in all curricular areas and shows patterns of who is collaborating, what curricular areas are benefiting, and holes in the collaborative fabric (what's not on the log).



Sample Collaboration Log Summary Page

During the _____ school year, the teachers and the library media teacher agree that the following units were successful collaborations, i.e., the learning was enhanced because the two partners exploited the resources of the library—its resources and technology.

	LMT Time	#Students
Social Studies		
Our Local Elections - grade 6	*2.6 hours*	*24*
Family Trees - grades 3 and 4 (Albright and Faire)	*3.6 hours*	*45*
Reading		
Newbery Novel Unit - grades 5 and 6 (Crane and Finch)	*1.5 hours*	*47*
Science		
Environment of the School Grounds - entire school (Principal, LMT and Dwight, leaders)	*15 hours*	*465*
Simple Machines - grade 3 (Truett)	*1.4 hours*	*27*
Nutrition - grades 5 and 6 (Handford and Zigler)	*2.8 hours*	*48*
Integrated Units		
Local Environmental Hazards - ss and sci. gr. 4 (Todd and Lark)	*4.5 hours*	*43*
Labor Movements - ss and art grade 6 (Jones and Gregg)	*3.7 hours*	*49*
Totals	*35.1 hours*	*748*

Hints:

- Create a summary chart similar to the one above that details collaborative units taught. Use a single sheet of paper for this summary page.
- Create a graphic that summarizes the above list.
- Enlarge the chart to poster size, use a transparency, or create a Power Point presentation when reporting collaborative efforts to the faculty, administration, and the community.

Note to administrators: How many collaborative activities were there? What is the dispersal of collaboration among the faculty, grade levels, and subjects taught? How could I as the instructional leader encourage more and better collaboration? Which of the collaborative activities deserve recognition from the community? If I were assigning a letter grade to the collaborative activities of the library staff and classroom teachers, what would it be?

Access to the Library: A Central Element of Collaboration

Access to information, information technologies, and library facilities must not be a major barrier to teachers and students lest the collaborative process be squelched. Use the following checklist to measure whether the library program is providing the flexible access students and teachers need in your school as the undergirding element of collaboration.

Library facilities:

- ❑ The library is not scheduled for weekly visits from any class, but all classes have multiple opportunities each week to send individuals, small groups, or large groups.
- ❑ Teachers might bring the class to the library every day 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 multiple groups and individuals may be working simultaneously without undue disturbance.

Classrooms:

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

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

- ❑ Individual students can be sent to the library at any time of the day for independent use and to obtain materials, equipment, or to use production facilities.
- ❑ Small groups can be sent to the library to use information and information technology.
- ❑ The teacher can take a large group to the library for independent use as facilities permit. There may be an adjoining classroom space to the library that allows free-flow.

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

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

Accessibility Score:

_____ of items above, or _____% Accessibility (divide number checked by 13)

Checklist for Administrators of Collaborative Planning Success

Classroom teacher/library media teacher collaboration does not happen automatically. A collaborative climate must be created by the school administrator. Lip service is only slightly better than benign neglect. In a recent study of New York City library programs, researchers measured collaborative library services and then rated three important elements: whether the entire faculty seemed united around a common education goal, whether the library media teacher had a vision of collaboration and knew how to implement it, and whether the principal had a vision of collaboration and stimulated its implementation. *Results showed that the principal was the key factor in collaborative success.* Even a super star of a library media teacher could not overcome the negative effects of a principal without a vision.

Principals might find the following checklist useful to help stimulate and promote collaboration and make the library program an integral part of teaching and learning:

Collaboration Checklist for the School Principal

- ❑ As the instructional leader of the school, participate as a team member of a collaboratively taught instructional unit at least once a semester.
- ❑ Inservice the faculty on a regular basis:
  - At the beginning of each year
  - Through short courses
  - Mini announcements in faculty meetings
- ❑ Provide teachers and library media teachers time to plan.
- ❑ If either the library media teacher or the teacher(s) find collaboration difficult, team with them for an actual planning session.
- ❑ Provide incentives for collaboration to occur.
- ❑ Use planning/evaluation forms and collaboration logs to monitor progress.
- ❑ Evaluate the result:
  - Are collaborative efforts producing better learning?
  - Are collaborative efforts making better use of materials and technology?
- ❑ Spotlight the best collaborative activities to the community.
- ❑ Look for progress in academic achievement in areas where collaboration is taking place.
- ❑ Use the collaboration process as one mark of success on both the teachers' and library media teacher's annual evaluation.
- ❑ Make sure that the library media teachers are on major governing councils and at curriculum meetings so they are included in curriculum decision making.

What Does Collaboration Cost?

The cost of collaboration does not reduce easily to a dollars-and-cents figure because it is so bound up in human relationships. Experiment with the following costing examples to see if any meaningful data are generated for your school.

Salary Costs: A library media teacher theoretically should spend the majority of time each day doing collaborative unit planning, execution, and evaluation. This could be costed out. For example, if a library media teacher spends 60% of the day on collaboration @ $30,000 annually, the cost is $18,000. Many library media teachers find it very difficult to spend this much time because of the weight of clerical and technical duties thrust upon them in the absence of classified personnel.

% _____LMT estimate of the amount of time in a typical day devoted to collaboration

x _____ Annual salary

= _____ Estimated cost of the LMT's collaborative efforts

Salary Costs Based on Collaboration Logs:

If time and number of students affected are recorded on collaboration logs (see p. 15), it is possible to cost out the collaboration time of the library media teacher per student.

Total # of hours x wage per hour / # of students affected
Example from p. 15: 35.1 hours x $20 per hour = $702 / 748 = $0.94 per student

Administrator Time Cost to Promote Collaboration:

(Circle your estimated time rating to encourage collaboration)

- Encouragement of the process — Low time 1 2 3 4 5 Time intensive
- Participation on collaboration teams to encourage joint planning — Low time 1 2 3 4 5 Time intensive
- Encouragement of a cooperative spirit — Low time 1 2 3 4 5 Time intensive
- Monitoring the process — Low time 1 2 3 4 5 Time intensive
- Building skill of the teachers and library media teacher — Low time 1 2 3 4 5 Time intensive
- Organizing school time schedules to provide joint planning time — Low time 1 2 3 4 5 Time intensive
- Assessing the outcome — Low time 1 2 3 4 5 Time intensive

Because the investment in technology does not directly cause academic achievement to rise, what is the cost of the human investment to transform materials, equipment, and technology into meaningful learning activities?

Do Your Own Assessment: The Impact of Classroom Teacher/ Library Media Teacher Collaboration

Methodology

1. Gather baseline data on any or all the measures listed below.
2. Implement a library media teacher/classroom teacher collaborative program initiative.
3. Measure the results.
4. Use the results in #3 as prelude data to a second cycle.

Research Question:

A. When library media teachers and classroom teachers collaborate to create learning experiences, what is the impact on teaching and learning in this school?

Data Collection Points:

Quantitative:

	#	%
1. Dispersion of collaborative planning among the faculty.	_____	_____ %
2. Number of disciplines affected by collaboration.	_____	_____ %
3. Number of grade levels affected by collaboration.	_____	_____ %

Qualitative: (circle on the five-point scale: Poor to Excellent)

4. The deepening quality and sophistication of collaboration over time.	Poor 1 2 3 4 5 Excellent
5. The impact on restructuring.	Poor 1 2 3 4 5 Excellent
6. The impact on quality learning experiences	Poor 1 2 3 4 5 Excellent

Supportive elements enabling collaboration to happen:

7. Time to plan.	Yes	No
8. Principal participation in the collaborative process.	Yes	No
9. Encouragement to collaborate.	Yes	No

Research Question:

B. What is the academic achievement of students with classroom teachers who collaborate regularly with the library media teacher as compared with students of teachers who seldom or never collaborate?

Data Collection Points:

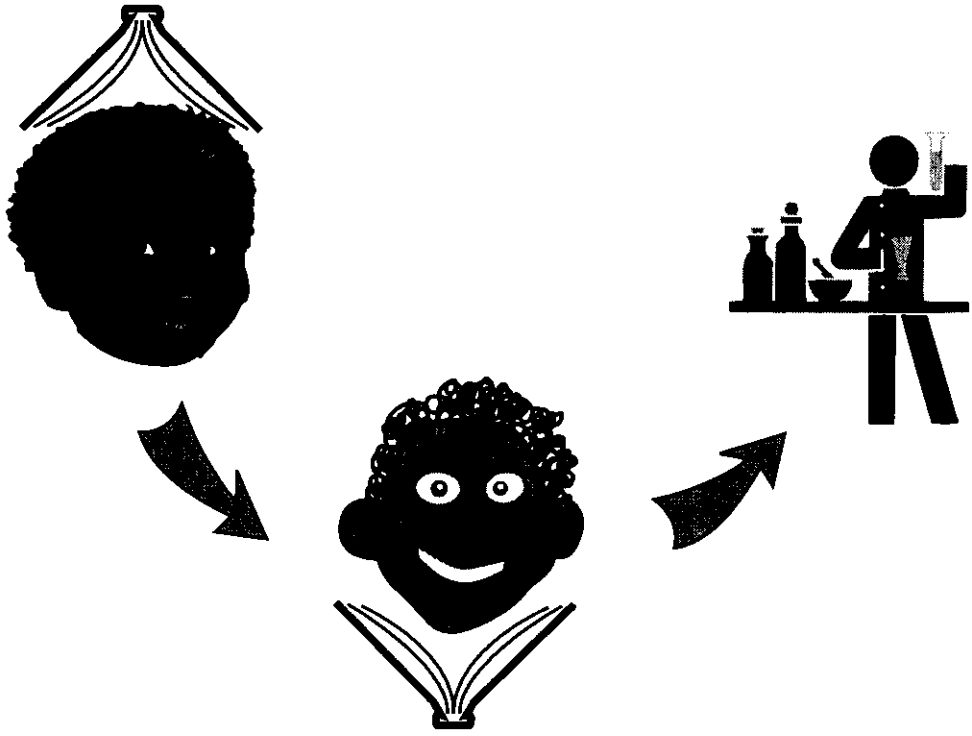
1. Divide teachers into two groups: collaborators and non-collaborators. Compare student scores on achievement tests.
2. Divide teachers into three collaboration groups: low, medium, and high. Compare student scores.

BUILDING AVID AND CAPABLE READERS

The Case for Readers in the Age of Technology

The necessity of building a strong reading program in an information world is more critical today than ever before. Systems such as the Internet do not discriminate by ethnicity or social status, but they do require excellent basic literacy skills; otherwise, another uncrossable gulf opens to divide the haves from the have-nots. Each young person needs to be literate as well as logged on! There is no substitute.

> Literacy *is* a problem to throw money at, but we have to aim carefully by pouring money into library books and then making sure they get read.
>
> **—Stephen Krashen**



Stephen Krashen Research: Linking Free Voluntary Reading to Academic Achievement

For Everyone: Amount Counts!

One hundred years of research supports the notion that free voluntary reading (the kind of reading you want to do, not have to do) — lots of it — is the best predictor of five essential achievement basics:

Comprehension
Spelling
Grammar
Vocabulary
Writing Style

For English Learners: Amount Counts!

Research also demonstrates that the fastest way to get anyone—child, teenager, or adult—to learn English is to have them read a lot in English!

The Source and a Must Read:

The Power of Reading by Stephen Krashen (Libraries Unlimited, 1993). Order from Language Education Associates, PO Box 3141, Culver City, CA 90231; 800-200-8008; web address: LanguageBooks.com

Do Your Own Preliminary Test: In any group of children or teenagers, ask those who consider themselves avid readers (they read regularly both in and out of school) to identify themselves. Compare these students' achievement scores with those who don't consider themselves as readers.

Linking Reading and Language Arts Methods and Library Programs

There is no one right way to teach reading. All methods are successful with some learners and not with others. Together, library media teachers and teachers develop plans to compensate for and strengthen the reading program at all grade levels.

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

List of Major Reading/Language Arts Program Elements	How the Library Program Can Respond

List of Major Library Reading Program Elements	How the Reading Program/ Teachers Can Help

- **Task:** Create a collaborative and integrated Library/Reading Program Plan.
- **Resources:** What do we already have? What do we need? How will we get what we need?

Starter Sample of Library/Reading Program Links

List of Major Reading/Language Arts Program Elements	How the Library Program Can Respond
1. Phonemic Awareness: Children need to encounter phonetic sounds in context.	1. In storytelling, reading aloud, the library media teacher selects stories where word sounds are a natural part of the whole. 1a. Word and letter sounds are a fun part of storytime. 1b. The library furnishes an ample supply of books where word sounds are a natural part of the literature.
2. Vocabulary development: The need to learn thousands and thousands of words in context and for in-depth understanding.	2. Weave words and their definitions into storytelling and reading aloud while still preserving the literature. 2a. Increase the amount actually read by each student through access to materials, motivation, and provision of time to read—the emphasis being on a pleasurable experience.
3. Build enjoyment of reading.	3. Make reading fun. No worksheets/exercises.

List of Major Library Reading Program Elements	How the Reading Program/ Teachers Can Help
1. A program to read aloud to every student every day no matter the grade level.	1. Every teacher participates in the reading aloud program. Works with the library media teacher to find the best material for read aloud and to learn effective oral reading skills.
1a. The library will provide numerous recommendations for materials that read well aloud.	
2. A program to maximize access to reading materials throughout the school and at home.	2. Classroom collections rotate as extensions of the library collection so there are constantly new and fresh titles in the classroom. 2a. Teachers assist in getting maximum amounts of materials into the home and back again.

Signs of Danger to Reading When Not Supported Well by the Library Program

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

- ❑ Students would not list reading on any list of fun things to do. Reading is *not* cool.
- ❑ Book collections in the library 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.
- ❑ 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.
- ❑ There is no program of sustained silent reading 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 the homes of students.
- ❑ Students do not have bed lamps or safe places to keep library books in the home.
- ❑ Parents, care givers, or siblings do not read aloud to younger students on a regular basis.
- ❑ Other:

Sample Problems/Sample Solutions of Library/Reading Integration

When library collections and classroom collections are two separate entities and both are weak.

See that classroom collections and library collections are seen as a single entity and that classroom collections are rotating from the library collection. Students may expect new materials at hand on a regular basis. Teachers and students should assist in selecting reading materials so that everyone, particularly readers, will win.

When the collection of the library is outdated, old, or worn out from use.

Every school should add a minimum of **one book per year per student.** Schools with small enrollments should double this number. Dreadfully outdated collections will require two books per student until the collection is attractive again.

When the students are checking out only one book a week from the library but it is just not enough to affect the reading scores.

Students should have many, many books checked out at any one time. In grades K-2, every student should be taking at least two books home each night—one to "read" and one to be "read to." All students need to have the opportunity to have numerous titles checked out—as many as personal responsibility can allow. Revamp the entire policy to figure out how thousands of books a week can be circulated and reshelved from not only the library but also from every classroom. It will require many hands and some ingenuity, but it must happen.

When circulation policy and computer automation systems have locked out certain students who owe fines or have lost a book from ever checking out another book.

There are two issues here—responsibility and literacy. Literacy should win! It must! Book loss is the cost of doing business. Make a pact with parents to maximize reading and at the same time help their children shoulder the responsibility for public property. Students can pay service hours for fines and lost materials if the family cannot afford replacement costs. It is a crime to prevent a child from learning to read!

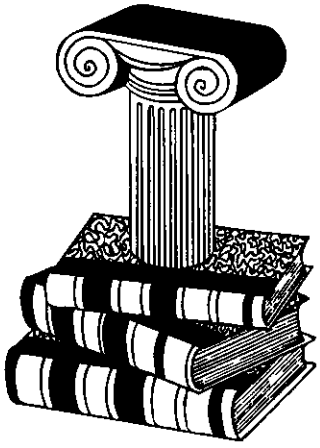
When, in spite of all we do to promote reading, scores are not improving.

Do not be discouraged. Comprehension, spelling, grammar, vocabulary, and writing style will be affected substantially when young people read a lot. It is amount that counts! Check how much reading is *actually* taking place in the school day as opposed to finding a book, getting ready to read, filling out work sheets after reading, talking about reading, doing projects connected to reading, etc. One study found that during a typical hour-long reading time, students read only eight minutes. This would be particularly crucial in classes teaching English learners or teaching English speakers any foreign language.

When good books in the collection are just never getting read.

Visit a local bookstore for marketing ideas. Here are a few: Student-created book jackets and fresh plastic jackets, face-out display, booktalks, reading a forgotten book aloud, buddy book reevaluation, and brown bag book discussion lunches.

Checklist of Successful Practices for Reading When Supported by the Library Program



- ❑ A sustained silent reading program in every classroom once a day, K-12.
- ❑ A program to read aloud to every student once a day, K-12. This includes storytelling as well as oral reading.
- ❑ A motivational program to encourage reading—challenges are preferable to contests.
- ❑ A program to involve parents in the total school reading initiative.
- ❑ A program to build a school-wide community of readers.
- ❑ Use technology assists to reading as long as those assists actually increase reading time and amount read (educational television, CD-ROM, computer programs, computerized reading motivators).
- ❑ Celebrate reading regularly as milestones are reached.
- ❑ Create the sense that reading is fun! Cool! Something I enjoy!
- ❑ Other:

Reading Activities List—An Idea Smorgasbord

- Principal-sponsored reading motivational events with the library and faculty
- Book fairs
- Author visits; Internet/e-mail/telephone author interviews
- Book clubs/book discussion groups
- Read-ins/pajama party reading sleepovers
- Celebrity reading visits/events
- Year-long reading initiatives/celebrations
- Cooperative public/school library summer reading programs
- Reading events connected to RIF, Book-It, or other community, state, or national events
- Reading aloud; storytelling sessions
- Writing your own book; Writing a book to help other students
- Cross-age/ cross-language reading buddies
- Movie/TV-Book tie-in activities
- Choral speaking

Support of Reading Costs Money: A Figure-It-Yourself Worksheet

What do books cost? **Example:**

Hardbacks	_____	$25.00
Paperbacks	_____	$7.00
Estimated average cost of an item (80/20 ratio hardbacks to paperbacks) (example: .8hb – .2pb = cost per book; .8x$25 – .2x$7 = $18.60 per book)	_____	$18.60

How many books do you need to buy each year?

One book/year/student—to maintain attractiveness, size, and interest	_____
Two books/student/year to *build* the collection when it is in poor shape	_____

Compute your own new reading materials budget:

How much would it cost to maintain a collection so that the reading collection of the school is kept fresh, new, and desirable for a school year?	_____
How much would it cost to steadily *build* a collection out of obscurity over 5 years?	_____
What would one-time reinvention costs be to rejuvenate old/outdated collections?	_____

Where might the money come from:

- ❑ School site funds
- ❑ Regular school district funds
- ❑ State special funds
- ❑ Federal funds
- ❑ Book fairs/sales
- ❑ Grants
- ❑ Gifts
- ❑ Student birthday books (parents and students sponsor one book/year)
- ❑ Corporate sponsorships
- ❑ Other:

Do Your Own Assessment: The Impact of Library/ Reading Program Collaboration

Methodology

1. Gather baseline data on any or all the measures listed below.
2. Implement a library/reading program initiative.
3. Measure the results.
4. Use the results in #3 as prelude data to a second cycle.

Research Question:

1. When library media teachers and classroom teachers collaborate to promote reading, what happens to literacy?

Data Collection Points:

1. The state of creating a print-rich environment throughout the entire school. (# that are print rich/number of rooms that should be print-rich) _____ % print rich

2. The library contains books, magazines, and newspapers that young people *want* to read. (% of students interviewed or surveyed who agree) _____ % students who agree

3. The size of the reading collection.
(do not count items primarily for research) _____ size of collection

4. Money spent to buy attractive and new reading materials. _____ $ for reading collection

5. Average amount of time per day students:
   a. Hear books read aloud/storytelling. _____ # of minutes
   b. Sustained silent reading. _____ # of minutes
   c. Actual reading time during reading instruction. _____ # of minutes
   d. Time to read in the library. _____ # of minutes

6. Number of books per week actually going home.
(count circulation from the library and the classrooms; estimates acceptable) _____ # of circulations

7. Survey/interviews of student attitudes toward reading.
(% of students who rate reading ☺😐☹) _____ % ☺

8. Number and duration of reading related activities.
(reading challenges, reading events, special programs) _____ # of events

9. Scores on reading assessments:
   a. Whole school.
   b. Teachers who participated heavily vs. teachers who did not.
   c. Students who report 20 min.+ of outside school reading vs. those who don't.

*** What does all the data collected mean in terms of the impact on reading**

ENHANCING LEARNING THROUGH TECHNOLOGY

The principal reason to have technology in the school is to enhance learning. Teaching young people to be skilled users of technological devices is a distant second in importance. Much excitement has been generated in the last decade over the possible contribution of technology to a good education. Critics, however, argue that for all the spending, little has changed in education and teachers still seem reticent to use the systems that are provided.

Consider the following points as plans are made to incorporate technology into a school:

- Technology is a tool, not an end in and of itself.
- Technology is neutral; it can be used to advantage or abused.
- Technology provides a wide variety of new channels for accessing information.
- Technology provides new ways to match student's learning styles.
- Technology provides amazing new channels for communications.
- Technology can be fun; sometimes it is edutainment.
- Technology requires a heavy investment of time and in people.
- Technology is a heavy investment of capital outlay dollars and requires substantial cost to upgrade and to keep operational.
- Technology is extremely difficult to justify if it lies unused or becomes outmoded.

> Justification of technology when it contributes little to the educational process and almost nothing to academic achievement is an administrator's nightmare!

Everyone a Skilled User of Technology

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

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!

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:
  - Formal skill-based instruction
  - 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:

Building a Repertoire of Successful Strategies Using Information Technology to Enhance Learning

Many times, a simple set of flash cards is just as good as a $3,000 machine — and more reliable. Technological sophistication is not automatically the answer. Theoretically, technology should help students learn more and more efficiently.

Numerous publications tout effective ways to enhance learning through technology. In reality, they are idea starters. Each teaching team, library media teacher, and student group should, through trial and error, test a variety of techniques and showcase the best. Emphasize technology-based projects where substance is more important than glitz; deep learning over surface learning. Consider the following strategies as a starter list:

Collaborative Data Collection and Analysis - Various student groups in the same school, in the community, state, nation, or internationally, collect data to solve an engaging problem.

Real Problems - Numerous technologies allow students to handle "real" data to solve real problems. The data can be historical, contemporary, or obtained instantly through sensing devices.

A Transparent Learning Tool - When technology is properly used, it often becomes transparent to the learning task at hand. It becomes a true learning tool, not an end in itself.

The Novelty of Technology - Enduring a steady diet of the same teaching strategies is boring. The use of a new technology or a fresh approach to an older technology can stimulate interest both in the technology itself and also in the subject matter to be mastered.

Capitalizing on Media Characteristics - Each different kind of technology has its own unique characteristics that can contribute to learning. Films have motion and color; books allow easy skimming and scanning; the Internet allows worldwide, almost instantaneous communication; online databases or CD-ROM databases often allow full-text searches; distance education allows participation from afar. When teachers and students use a particular medium for its strengths, concept delivery and understanding are likely to be enhanced.

Multiple Data Sources - The Internet, CD-ROM information sources, books, periodicals, video sources, and connections to other libraries help students experience a wide variety of information on the topic or question they are seeking. There is something for every student at every level.

Simulations - Simulations including simulation gaming provide a way to come close to reality without encountering the dangers, the impossibilities of traveling in time or space, the "what ifs," or the risks.

Communication Beyond the School - The Internet, the amplified telephone, and e-mail allow students to communicate around the world, to other schools, experts, governments, agencies, libraries, museums, businesses and a host of other sources.

Background Building - Before students can deal intelligently with an engaging problem, they can build the needed background knowledge from a wide variety of media and technology sources in a relatively short period of time.

Efficient learners - Because of technology assists, students write more, produce better products, edit their work more carefully, use more information resources and integrate them into their work.

Idea for Principals #1:
Do a "Map Your Media Space" Activity With Students

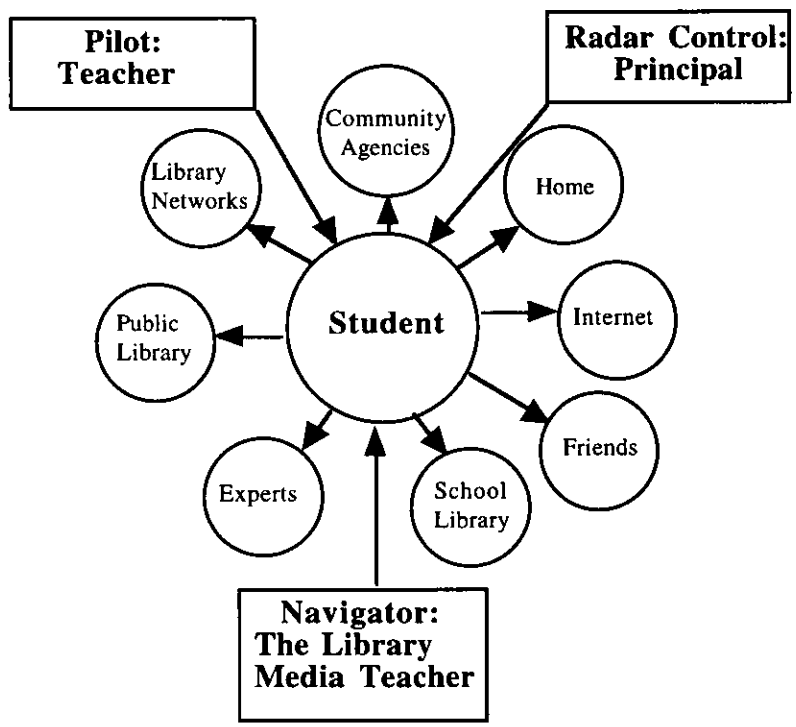
Researchers at Xerox coined the term *media space* as the "information environment connecting real and imaginary places, objects, and people within them."[2] As schools become information and technology rich, students need help in discerning the multiple information sources to which they have access.

Principals can learn much about student perceptions of the information infrastructure created in a school by participating with the classroom teacher, the library media teacher, and the students as they map their media space.

Activity:

Near the beginning of an inquiry, just after students have formulated their inquiry or question, hold a brainstorming session with students, the classroom teacher, and the library media teacher. During the session, explore with the students the various possible information sources that might be of use to them during their inquiry. Their knowledge or ignorance of the information infrastructure of the school and on into the community and beyond will give clues as to their sophistication level.

A possible media space map might look something like this:



[2] von Wodtke, Mark. *Mind Over Media: Creative Thinking Skills for Electronic Media.* New York: McGraw-Hill, 1993, p. 21.

Idea for Principals #2:
Create a Technology Rubric With Students

When learners participates in creating both the expectations and the assessment for learning experiences, they are much more likely to perform in a desirable direction. This is particularly true when a wide variety of technologies are being used to assist students in their learning.

Principals who are asked to justify major expenditures for technology can get a great deal of insight if, at least once a semester, they participate in the learning activity involving technology. Here's how it could work:

1. At the point when students have gained an understanding of a project or a problem they will be solving, the principal, teacher(s), and the library media teacher consult with students to create a piece of a rubric that will deal with the use of technology.

2. Present the notion that technology assists should help in the learning process and that both the technology and the student will be held accountable as the project progresses and is finally assessed.

3. Build a piece of a rubric together that will measure this one notion—whether the use of a technology enhanced both the process and the product of the inquiry or project.

Sample rubric statements:

1. I chose an appropriate technology for a project.
2. I have demonstrated my skill using the technology.
3. The technology is used to make the message come across.
4. The content of the product is more important than the technology.
5. The content is well organized.
6. The content is presented well.

Hint to Principals: Monitor the project as it progresses whenever your schedule permits. At the conclusion of the project, examine how students were assessed on the rubric. Hold a discussion with the learners on what happened and how technology could be used in a future project to improve their learning. Finally, hold a discussion with teachers and the library media teacher about the positives and the negatives. Create future directions. (See Idea #3.)

Idea for Principals #3:
Do an AAR on Technology With Students

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 teacher, 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 teachers 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

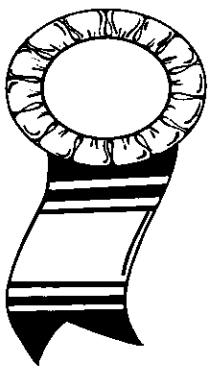
Types of Information Sources Accessed
- ❑ Books (fiction or nonfiction)
- ❑ Books (Reference)
- ❑ Magazines (printed)
- ❑ Magazines (electronic)
- ❑ Newspapers (printed)
- ❑ Newspapers (electronic)
- ❑ CD-ROM databases
- ❑ Computer tutorials
- ❑ Simulation games
- ❑ Internet information sources
- ❑ Museums 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

Idea for Principals #4:
Hold a Learning Through Technology Fair

Who Leads: Principal, library media teacher, 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 library media teacher.

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 state 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! is just what it says. As a judge, you are very impressed with what the students learned.

Idea for Principals #5:
Plan a Learning Through Technology Inservice for Teachers

Who leads: The principal, library media teacher, and selected teachers/consultants.

Goal: To investigate using a technology or strategy likely to enhance learning in a semester or year-long experiment.

Activity:

1. Explain a technology or strategy to students (consider ideas from p. 31).

2. Teach teachers any skills they will need to experiment with the technology or the strategy under consideration.

3. Divide the group into teacher teams who would like to experiment with the technology or strategy in collaborative learning projects.

4. Brainstorm with the whole group possible applications, experiments, and assessment strategies that could be used in an experimental mode with real learners.

5. Present an engaging problem to teams as a challenge to do well.

6. Have a work session for groups to design their projects.

7. Invite reports from groups.

8. Calendar experiments over time so that each group can take advantage of what other groups learn as the year progresses.

9. As each group conducts its experiment, have them report back to the faculty—what went well, what problems were encountered, what suggestions they might have for other teachers experimenting with the same techniques.

10. Plan a final year-end assessment of experimentation; accolades; future plans.

11. Provide reports to school boards and the community of successes and progress made using technology.

Note to Principals: A great deal of help and advice is available through the California Technology Assistance Project. CTAP has a CD-ROM disk that serves as a web connection and contains links to other web sites. Order the *1997 CTAP Instructional Technology Resources for California Schools* from CTAP at web address: http//www.ctap.k12.ca.us

Examples of Enhancing Learning Through Technology When Supported by the Library Program

Which of the following, or some variation thereof, would be likely to happen in your school?

- ❑ The library media teacher provides a valuable technology tool to a teacher and helps that teacher understand how to use the tool. (Example: A math teacher uses a technology to help students understand a difficult concept. The library media teacher introduced that tool to the teacher.)

- ❑ A film about Tibet obtained through the library allows students to experience this country, its culture, the environment, and its fascination in ways a few paragraphs in a textbook could not possibly deliver.

- ❑ In a joint English teacher/library media teacher/student discussion, students agreed that a book was superior to the filmed version for a variety of reasons.

- ❑ Students stumped about a problem they were trying to solve consulted with the library media teacher and were able to talk with an expert by e-mail who pointed them in the right direction.

- ❑ Classroom resources and connections were insufficient to get materials for a project, but a visit to the library solved student information access problems.

- ❑ The make-and-take workshop corner in the library allowed a small group of students who were having difficulty in the classroom to succeed with their multimedia project under the guidance of the library media teacher.

- ❑ In the English-for-Spanish-speakers classroom, there were almost no resources. Working with the library media teacher, the classroom teacher was able to stock the classroom with more than 1,000 titles of interest to English learners, CD-ROM programs, comic books, newspapers, and a host of bookmarked Internet sites for "Sustained Silent Reading/Viewing/Listening Time" each day in class.

- ❑ The science department, social studies department, and the library collaborate to investigate how technology has had an impact on post WWII global society. Students present their small group findings in a variety of formats ranging from HyperCard stacks, digital slide shows, to multimedia projects.

Note to Principals: The California Technology Assistance Project has a web site and links to the S.C.O.R.E sites that provide numerous ideas for integrating technology into history/social sciences, language arts, math, and science. Order the *1997 CTAP Instructional Technology Resources for California Schools* from CTAP at web address: http//www.ctap.k12.ca.us. Also check "California Department of Education: Standards, Curriculum, and Assessment" at http://www.cde.ca.gov/cilbranch/sea and, "Standards-Based Accountability" at http://www. cde.ca.gov/iasa/standards.

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, sports facilities, or special areas of the school?

Student behaviors:

- ❑ Students are interested/engaged in learning projects using technological devices and print resources.
- ❑ Students are using technology purposefully rather than as recreation.
- ❑ Students who are usually disinterested in schooling are engaged.
- ❑ Students are pursuing their own interests as a part of learning activities as opposed to pursuing only topics teachers demand.
- ❑ 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.
- ❑ Other:

Facilities:

- ❑ Students can find whatever technologies they need in a variety of locations throughout the school and are able to get their work accomplished without long waits in line.
- ❑ Configurations of technology allow for simultaneous use of technology by individual students, small groups, and large groups.
- ❑ Students report that, for the most part, the technologies they need are working almost all of the time.
- ❑ Print and computer technologies are integrated into libraries and classrooms.
- ❑ Technology is available to students before and after school, and at noon, in addition to the regular school hours.
- ❑ Other:

Adults:

- ❑ Teachers and library media teachers obviously have buy-in to a technology-rich environment and feel comfortable teaching in that environment.
- ❑ Teachers and library media teachers are in the coaching stance rather than being the principal mechanism for information delivery.
- ❑ Other:

Danger Signs Checklist When Technology Not Supported Well by the Library Program

Students:

- ❑ Students regularly use technology for playing games/hacking/surfing.
- ❑ Student 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 student's 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, 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:

What Does Information Technology Cost? A Figure-It-Yourself Worksheet

- **What does a typical middle-income family spend each month on information technologies coming into the home?**

Newspapers	_____
Magazines and books	_____
Telephone	_____
Cable television	_____
Internet connection	_____

1. Compute the average cost/month for each family member (divide by 4).

2. Assuming the school cannot equip every student with sufficient information services for less than it can be done at home, how much should be spent per student per year? (Figure 12 months, not 9, since most information technologies cost money whether or not they are used.)

3. Multiply the number of students by the per-student cost for the annual budget for information technology for your school.

- **Why is the figure so high?**

- **What the total information technology budget should pay for:**

  - All books and printed materials
  - All site licenses for information products
  - All computer software and upgrades
  - All computer equipment upgrades (after initial outlay)
  - All Internet and telephone line charges
  - All maintenance and repair costs of materials and equipment
  - But not salaries

- **When you lump all of the items listed above, what are you currently spending?**

- **Realistically, how much will information technology cost over time not only to install, but to maintain, upgrade, and replace?**

- **Sources for funding:**

- ❑ School site funds
- ❑ Regular school district funds
- ❑ State special funds
- ❑ Federal funds
- ❑ Book fairs/sales
- ❑ Grants
- ❑ Gifts
- ❑ Corporate sponsorships
- ❑ Other:

Do Your Own Assessment: The Impact of Information Technology on Learning

We should see improvement in academic achievement when technologies of all types are used to advantage in the educational process. It is difficult to parcel out exactly how much learning is attributable to technology, but an informed judgment must be made. This page suggests a few areas that might be studied to reveal some major clues.

Skilled Users of Technology:

- The number of students receiving skill-based instruction _____ ____%
- The number of students receiving just-in-time instruction _____ ____%

Repertoire of Successful Strategies Using Information Technology to Enhance Learning (from p. 31) (check the box that most clearly describes your situation or create your own best description:)

- ❑ A small repertoire and of insignificant quality
- ❑ A small repertoire but of high quality
- ❑ A steadily growing repertoire — the quality could improve
- ❑ A steadily growing repertoire — the quality is excellent
- ❑ A rich repertoire — the quality could improve
- ❑ A rich repertoire — the quality is excellent

Or, How would you describe the repertoire of successful strategies using information technology to enhance learning?

From your involvement as principal in using any of the ideas on pages 32-36, rate how much of an impact technology is having on enhanced learning experiences in the school. Little impact 1 2 3 4 5 A great deal of impact

Conclusions you draw:

CREATING AN INFORMATION LITERATE LEARNER

The Definition of the Information Literate Student

Information literacy has been defined various ways in a variety of ways and while some details vary, the central substance has not.

Information Power, the major standards document of the school library field, defines information literacy as students and staff who are effective users of ideas and information.[3] Another popular definition is: "the ability to access, evaluate, and use information from a variety of sources."[4] A third model looks at inquiry as an umbrella under which is information literacy, media literacy, creative thinking and critical thinking.[5]

For this publication, the information literate student possesses five qualities of mind and skill:

An Organized Investigator
A Critical Thinker
A Creative Thinker
An Effective Communicator
A Responsible Information User

One of the major agendas of the school library profession is to assist students as they are introduced to an information rich environment and provide them with the skills they need to survive where there is as much noise as there is symphony. Library media teachers are interested in a certain quality of mind, a broadened capacity of information handling, an internalized model of personal research, and an ability to be a good citizen in the information world.

The balance of this section covers each of the five qualities of mind in more depth:

[3] American Association of School Librarians and Association for Educational Communications and Technology. *Information Power: Guidelines for School Library Media Programs*. Chicago: American Library Association, 1988, p. 1. (A new edition of Information Power including standards for students will be published in 1988.)

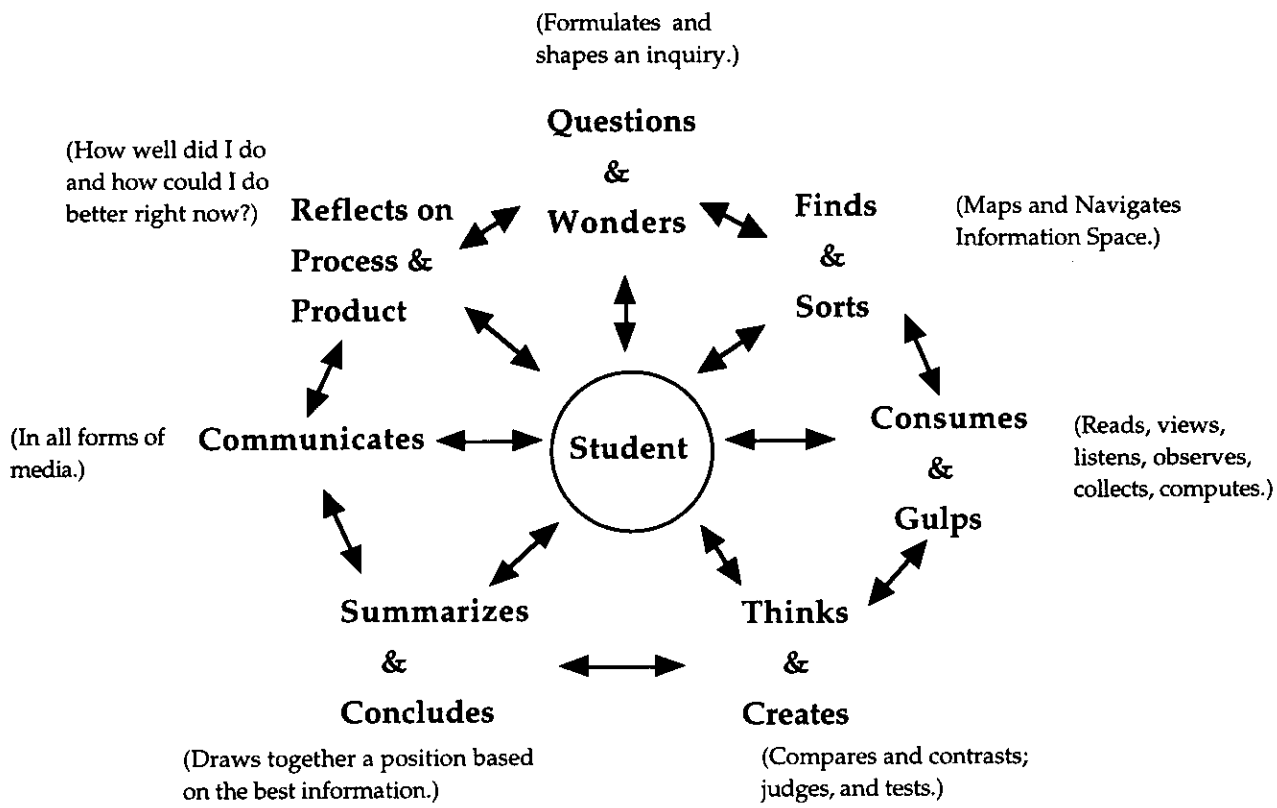
[4] Doyle, Christina S. *Information Literacy in an Information Society: A Concept for the Information Age*. ERIC Clearinghouse on Information and Technology, June 1994.

[5] Callison, Daniel, Joy McGregor, and Ruth Small. *Instructional Interventions for Information Use*. San Jose, CA: Hi Willow Research and Publishing, 1998.

An Organized Investigator

Traditionally, students have done little "research" or investigation until high school. However, the advent of constructivist principles plus the advent of rich information environments allows all students the opportunity to develop investigative strategies and become problem solvers.

Beginning inquirers need some guidance in developing a process for doing research. Each student can be introduced to a research process model adopted by the faculty for the school. Popular models include the Eisenberg & Berkowitz Big Six Skills, the I-Search Process created by K. Macronie, and the California School Library Association Information Literacy Model.[6] A sample information literacy model is presented below.



After several research experiences using a research model, students can then develop their own model to match their individual learning style. The library media teacher should have numerous examples of research process models available for consideration by the faculty and can take the lead in teaching this concept to the faculty as a whole. A wonderful activity with faculty is to present them with numerous information literacy models and then challenge them to develop their own. This gives them not only a sense of their own investigative style, but also a much clearer notion of what information literacy is and how it can be used in the classroom.

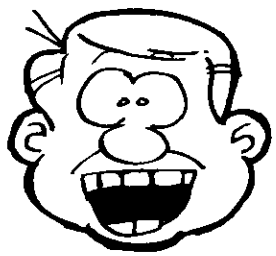
[6] One of the best sources for information literacy guidance is: *From Library Skills to Information Literacy*, 2nd ed. (1997), authored by the California School Library Association and available from LMC Source, P.O. Box 720400; San Jose, CA 95172-0400; 800-873-3043; lmcs@Pacbell.net

How to Help Students Become Organized Investigators

Children and young adults at any age can begin learning the techniques of conducting inquiries and solving the problems they meet. Rather than construct a scope and sequence chart with rigid requirements at the various grade levels, adults can recognize student sophistication levels. Students may be beginners, intermediates or sophisticated information literates no matter the age, gender, cultural background, or principal language spoken. It is not difficult to recognize the difference in sophistication.

Beginners

- Frazzled
- Lost
- Can't pick a topic for research
- Can't find information
- Desperately needs help
- Needs help constantly
- Distracted
- Uninterested



Intermediate

- Self-starting
- Still a roller-coaster experience
- Needs support
- Has moments of insight
- Interested
- Somewhat systematic
- Will take advice

Advanced

- Independent learner
- Knows where to go and how to get there
- Asks advice to monitor progress

Instead of regimenting the teaching of investigative strategies, the classroom teacher and the library media teacher might try the following with all of the class, small groups, or individual learners:

- Teach a research model as a whole several times at varying intervals. Students will proceed through a problem in a step-by-step fashion and discuss each step as the investigation proceeds and is completed.

- After a research project or inquiry, reflect on the model students have used. At an appropriate time, have students create their own information literacy model. Models will vary since learning styles vary.

- Teach students that real research is generally a very messy process—there are many false starts, problems encountered, progress, backtracking, and enough hassles to require a great deal of patience and hard work.

- Have students test their own model on a second project. Refine.

- When students complete a project, assign a grade for both the process and the product. Students should know in advance, via a rubric, that both the process and the product will be assessed.

A Critical Thinker

Numerous educators have been interested in the idea of critical thinking in the past decade. Indeed, there is a major body of literature on the topic. Librarians see critical thinking as one of the major components of the information literate person. But instead of advocating an add-on to the curriculum—a new scope and sequence or curriculum to be taught—critical thinking is best integrated into the subjects and projects at hand.

Teachers and library media teachers should teach critical thinking strategies as projects, lessons, and information use occur. The objective is to create neither students who are sponges (believing everything they read, view, and hear), nor skeptics (believing nothing they read, view, and hear), but healthy skeptics (using evidence and authoritative sources to judge believability).

CRITICAL THINKING CONTINUUM

Sponges - - - - - - - - - - Healthy Skeptics - - - - - - - - - - Cynics[7]

One of the major challenges, for example, is to educate students to evaluate information they find on the Internet. Principals might use the following checklist as they question students on how they evaluate a good web site for inclusion in their project information base.

Evaluative Criteria of a Good Web Site:

(could be used for most information sources)

I can trust this Internet site because:

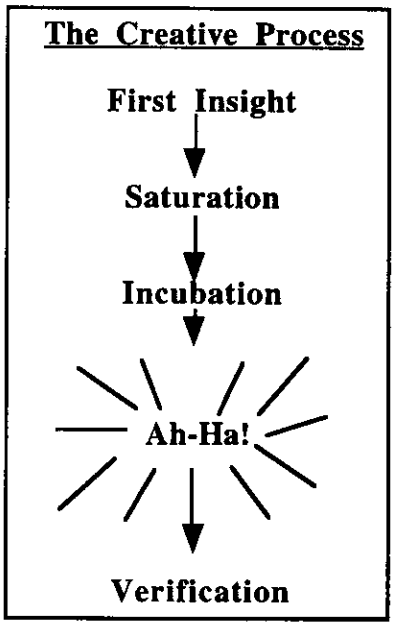
1. The source is authoritative.
2. The information is current.
3. The information can be judged as fact or opinion.
4. The information is accurate.
5. The information is easily understood and is useful.
6. The information needed is easily and rapidly located.
7. The site requires no personal information to be given.

As students proceed through a learning experience, teachers and library media teachers should constantly probe their critical skills by asking good probing questions. A second method is to give quick mini-lessons at a moment when students are going to have to make numerous judgments. As principal, ask classroom teachers and library media teachers how they are integrating critical thinking into their collaborative activities.

[7] From the introductory discussion in Summers, Sue Lockwood. *Media Alert!: 200 Activities to Create Media-Savvy Kids.* Hi Willow Research and Publishing, 1997. (P.O. Box 720400, San Jose, CA 95172-0400)

A Creative Thinker

Learning is often so regimented with students receiving points for molding projects to exact specifications that creativity is penalized. Recognizing and rewarding creative thinking even when the student might act like Jim Carey or Robin Williams is a major challenge. Is it being encouraged in your school and in the library? Consider the definition of creativity at the right[8] and Apple Computer's recent advertisement.[9]



To the Crazy Ones

Here's to the crazy ones.
The misfits.
The rebels.
The troublemakers.
The round pegs in the square holes.
The ones who see things differently.

They're not fond of rules.
And they have no respect for the status quo.

You can praise them, disagree with them, quote them,
disbelieve them, glorify them or vilify them.
About the only thing you can't do is ignore them.

Because they change things.
They invent. They imagine. They heal.
They explore. They create. They inspire.
They push the human race forward.

Maybe they have to be crazy.
How else can you stare at an empty canvas and see a work of art?
Or sit in silence and hear a song that's never been written?
Or gaze at a red planet and see a laboratory on wheels?

We make tools for these kinds of people.
Because while some see them as the crazy ones, we see genius.

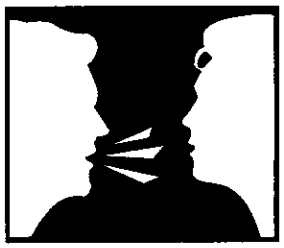
And it's the people who are crazy enough to think they can change the world,
who actually do.

Think different.

[8] The creative process is Getzel/Kneller's description in von Wodtke, Mark. *Mind Over Media: Creative Thinking Skills for Electronic Media.* New York: McGraw-Hill, 1993, p. 115.

[9] c. 1997, Apple Computer, Inc. Used by permission.

An Effective Communicator



Students should be able to express themselves and communicate their findings successfully in a wide variety of media including:

- Written reports
- Term papers
- Web sites
- Multimedia presentations
- Video presentations
- Graphic charts, diagrams, transparencies, Power Point presentations, etc.
- Real and constructed objects
- Reenactments, drama, oral presentations
- Portfolios

Student products not only should span the various types of media but should become increasingly sophisticated as experience with technology increases. Student products should be evaluated by some form of rubric. Here is a sample partial rubric:

My product:

- Reports clearly the question or quest.
- Reports the various information sources I used.
- Draws from excellent information sources.
- Reflects my thinking about the topic covered.
- Is a summary of what I have learned.
- Uses technology well.
- Is neat and organized.
- Is presented well.

Student products should be a part of exhibitions to parents, other students, or might have utilitarian value for other students. See the idea for conducting a learning through technology fair as one exhibition idea (p. 35). Such events encourage students to demonstrate deep learning vs. surface learning—an expectation that encourages a behavior teachers would like to maximize.

For the most part, students should be taught how to communicate in the various media at the time when they need the skill. For example, they can be taught to use the digital camera before a field trip where they will be taking pictures to integrate into a multimedia presentation. In this case, a few students can be taught the skill, and they can be assigned the responsibility to train others—to "check them out" before handing over an expensive piece of equipment.

A Responsible Information User

When only a textbook, some note paper, and a few library reference books were available as the chief student information sources, the need to teach responsible information use was not a common part of education. Now, however, as the information pool deepens, students of all ages handle vast quantities of information resources and with the opportunity comes more responsibility. Consider the following checklist:

Information Responsibility Checklist

- ❑ Students should be ethical and responsible users of information and information networks.
- ❑ Students should respect other student's work on information systems and equipment as it develops.
- ❑ Students understand plagiarism and the cut and clip mentality, avoiding both.
- ❑ Acceptable use policies should cover all forms of information delivery mechanisms, not just the Internet. The three main components of an acceptable use policy are:
  1. Access privileges to libraries, networks, and information technologies.
  2. Rules for user behavior in the library, in computer labs, etc., while using materials, equipment, and networks.
  3. Consequences for violating the rules.
- ❑ Students might be required to carry a student information technology driver's license and post it in a prominent position on a computer or other equipment they are using. The statements on the driver's license should reflect the major points on the school's acceptable use policy. An example is shown below:
- ❑ Other:

Student Information Technology Driver's License

_____ **Name** _____ **School**

- I respect equipment, software, and materials and use them responsibly.
- I respect other students' work and networks.
- When I quote or copy others, I give credit.
- I realize that e-mail is public information.
- If I find something inappropriate, I exit immediately and report it.
- I don't give out my name or personal information over networks.
- **I (and my parents) have signed my school's Acceptable Use Policy and I agree to abide by it.**

_____ Student Signature

Costing a Program of Information Literacy

Teaching students to be information literate is a human-intensive activity, so it is automatically expensive. There are two major approaches to teaching information literacy popular with library media teachers. One method is recommended; the other is not.

Method One: Direct Skills Teaching (Not Recommended).

- District or school adopts some type of scope and sequence chart for each grade level.
- Library media teachers prepare lesson plans for each skill and teach them to scheduled classes once a week.
- Purported advantages:
  - All students receive the same instruction.
  - Instruction is systematic.
- Disadvantages:
  - Disconnected to what students need or related very little to classroom curriculum.
  - Students bored; learn very little; usually a waste of everyone's time.
  - Potential for very little or no difference on academic achievement.

Costing Out Method One:

% of library media teacher time spent _____ x annual salary _____ = Total Cost ____

Method Two: Integrated Information Literacy Teaching (Recommended).

- District or school adopts a framework of information literacy competencies to be integrated into the curriculum showing beginning, intermediate, and advanced skill levels.
- Library media teachers prepare a wide variety of mini-lessons that can be integrated at a moment's notice into any subject matter and project students are working on.
- Mini-lessons are taught at the point of need — when students lack a skill they need to move forward.
- Purported advantages:
  - Students learn more and more quickly when a skill is used right after it is taught.
  - Instruction makes sense to both teachers and students.
  - Teachers receive help when students are lost, uncertain, unorganized.
  - Teachers feel they can tackle more difficult projects because two adults are helping.
- Disadvantages:
  - Students are not at the same skill level.
  - Tracking who knows what is more difficult.
  - Library media teacher has to be much more flexible and organized.

Costing Out Method Two:

% of library media teacher time spent _____ x annual salary _____ = Total Cost ____

(Get data from collaboration logs; p. 13)

Do Your Own Assessment: The Impact of Information Literacy on Learning

Methodology
1. Gather baseline data as described below.
2. Implement an information literacy program initiative.
3. Measure the results.
4. Use the results in #3 as prelude data to a second cycle.

Research Question:

When the library media teacher and classroom teachers join forces to teach information literacy skills as an integrated component of projects, inquiries, and investigations, what happens?

Data Collection Points:

1. Ask the library media teacher to furnish a rubric to evaluate a student project in terms of information literacy expertise.

2. As baseline data, ask teachers who would like to be a part of an experimental group to furnish 15-25 student projects at random that have already been graded for content.

3. Ask the library media teacher to evaluate the selected projects based on the information literacy rubric. As principal, participate in this assessment to become knowledgeable of the process.

4. Hold a meeting of the classroom teacher, the library media teacher, and the principal to go over the papers that were evaluated. Ask questions such as:
   - Is there any evidence that students went about their research in a systematic fashion?
   - What kind of information sources did students use to complete their projects?
   - Did students attribute information used? Copy? Summarize? Correctly cite?
   - Was there any critical thinking or creative thinking exhibited?
   - As a whole, what is the state of information literacy as exhibited by these projects?
   - How might we, as a team, infuse more information literacy principles into student work?

5. Plan an intervention for teaching information literacy principles.

6. Before projects begin, have the teacher and the library media teachers introduce a rubric to students to evaluate both the content and the process of the project.

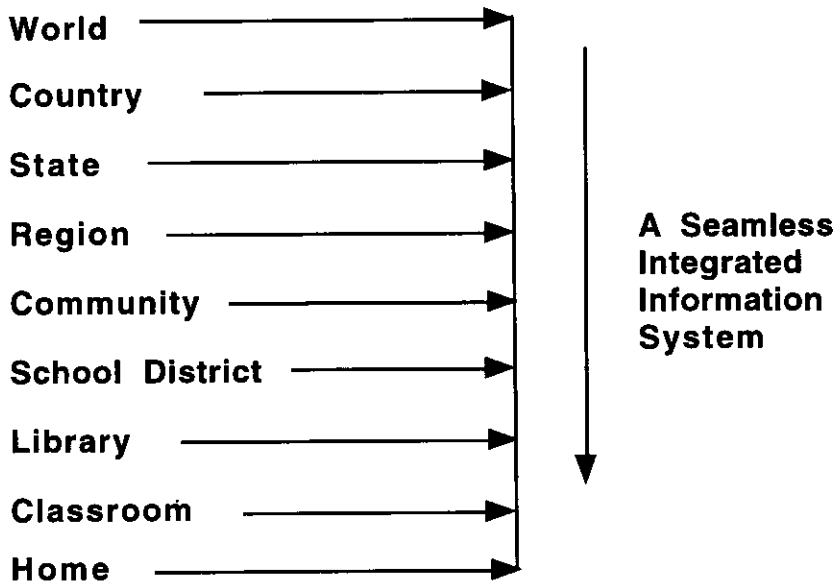
7. Have the library media teacher assist the classroom teacher when projects are evaluated on the rubric. As principal, participate on occasion.

8. Repeat the process above. Has there been a shift?

9. Based on the data collected, what is the state of information literacy in the school?

BUILDING AN INFORMATION INFRASTRUCTURE

Schools and homes everywhere are fast becoming a part of a world-wide seamless integrated information system positioning every participant to enjoy an immense array of information, data, culture, and knowledge. But it comes at a price — not just in creating the system (admittedly costing trillions), but at a heavy cost of information overload, information pollution, information manipulation, and a host of other ills. Adults, awash in an information glut, tend to turn it off.



Will children fare any better than adults in an ocean of information technology? We are beginning a grand experiment. Administrators will and are having a giant role in shaping the destiny and impact of this experiment. Some assume that linking up and logging on is the goal. It is only the beginning.

The final section of this book looks at an architectural framework designed to deliver the best information and at the same time provide the needed human interface to make it an elevating force:

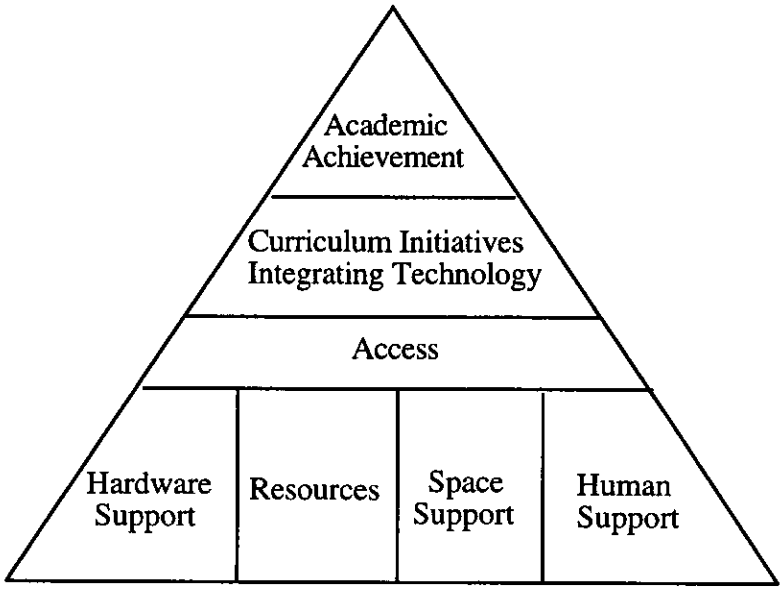
Foundational Elements of the Information Infrastructure

The information infrastructure of a school consists of the backbone or undergirding support structure of information technology for a school. Information technology is defined as all technologies ever used in education or that will ever be used in education. This includes print, multimedia, computer, and electronic delivery mechanisms.

The information infrastructure is the wiring, the networks, the equipment, the shelving, the lighting, the darkening, and the technical expertise to set in place a system in a school to deliver information in all of its forms. This intricate network transforms the entire school into an information-rich learning plaza. The library as Network Central uses both centralization and decentralization strategies to deliver information as close to the student as possible yet have a centralized network design.

The information infrastructure of the school is governed by a **comprehensive information technology plan** covering all forms of technology (books, audiovisual materials, video, educational television, information databases, computers, Internet, etc.).

The following diagram illustrates the basic components of a comprehensive technology plan aimed at supporting academic achievement rather than upon showy networks:

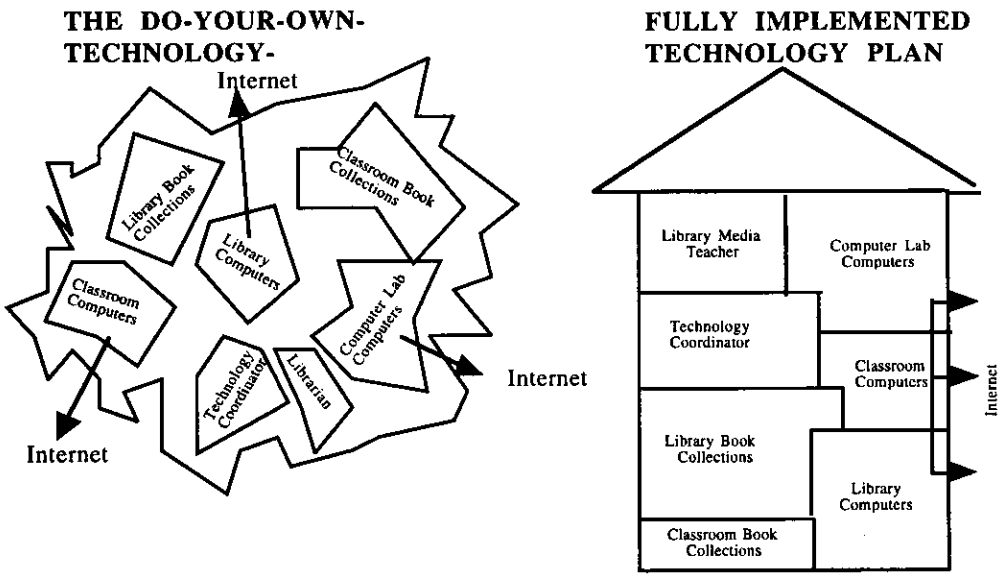


HARDWARE SUPPORT	RESOURCES	SPACE SUPPORT	HUMAN SUPPORT
a. Equipment	a. Internet sites	a. Network Central (library)	a. Coaching
b. Networking (school-wide)	b. CD-ROM	b. Individual study	b. Consulting
c. Software	c. Video/television	c. Small group work	c. Guiding
d. Technical support	d. Print resources	d. Large group work	d. Partnering
e. Repair, replacement, and upgrading	e. Multimedia	e. Space for materials, equipment, technology	e. Leading
		f. Comfortable and inviting	f. Visioning
			g. Training

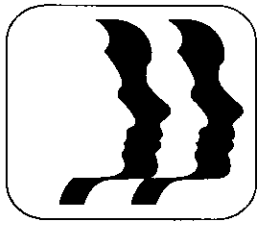
Evaluate Your Technology Plan

Use the following checklist to evaluate whether your school's technology plan is comprehensive enough to include the following items:

- ❑ Covers all forms of technology including print, video, and multimedia, not just computers.
- ❑ Makes a clear statement that the function of technology is to enhance learning.
- ❑ Describes the essential elements of the information infrastructure.
  - Backbone wiring, networks, distribution systems, telecommunications throughout the school and the library.
  - Accommodations for print technologies in the library and throughout the school.
  - Locations of technologies as part of learning spaces of all types.
  - Hardware configurations for computers, video, CD-ROM, etc.
  - Repair and maintenance of the information infrastructure.
  - Personnel responsible for the information infrastructure.
  - Initial costs vs. ongoing costs of the infrastructure.
  - Software and information packages/data sources that will be made available and where.
- ❑ Repertoire of successful practices for enhancing learning through technology.
- ❑ Materials selection policies and acceptable use policies.
- ❑ Curricular goals in light of successful learning practices.
- ❑ Short- and long-term plans to achieve curricular goals through:
  - Exploration and experimentation.
  - Inservice training.
  - Showcasing success.
- ❑ Library staff responsible for collaboration to achieve curricular success.
- ❑ Assessment plans for measuring education impact of the technology initiative.
- ❑ Other:



Staffing



After the wires are in, the computers set up, the books purchased, the magazines ordered, the Internet connections made—suddenly the reality comes that machines and materials do not transform themselves automatically into learning enhancers—it takes people!

In times past, school libraries were thought to be manageable by a single individual. Now, the idea that a single individual can manage a multi-million dollar, time-intensive organization is ludicrous. Realistic staffing of a complete information technology learning plaza requires:

- Professional expertise
- Technical expertise
- Classified staff
- Volunteers

  - A full-time library media teacher in every school is an indispensable element to make an impact from information technology on academic achievement.

  - A professional technology coordinator who is charged with the responsibility of creating the information infrastructure and keeping it current, updated, and operational is essential.

  - A full-time technician is essential to keep all of the component parts of the information systems operational and in good repair.

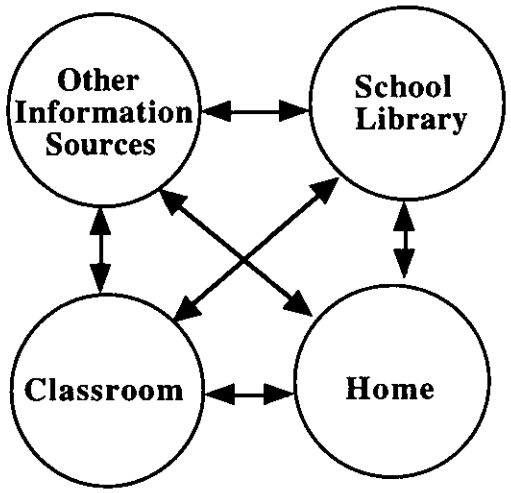
  - Classified staff is needed to insure that the warehouse/laboratory systems work for the benefit of the students and teachers.

  - Volunteers provide assistance in so many ways that help the professionals and classified staff accomplish the most important tasks with learners.

Schools that have become very expensive laboratories yet lack the professional vision and leadership a full-time library media teacher provides have little prospect of enhancing academic achievement. A few of the faculty in a typical school will adopt new technologies as early experimenters, but the wholesale adoption of technological change requires continual professional encouragement, collaboration, and support.

Can't find a good library media teacher? Grow one! Pick your best teacher and send that person back to school to get certified.

Do Collections and Information Resources Measure Up?



The single reason for building a library collection in the school is to support the curriculum of that school. The collection, formerly mostly print, now contains the right materials for the right learners at the right time in every format available.

Traditionally, users had to come to the library to obtain materials. Now in the age of technology, more and more materials can be delivered not only in the library but also into classrooms and on into the homes of students.

- A collection development plan should outline what information and information technology will be available:
  - At the point of use (classroom/home)
  - Nearby (in the library)
  - Beyond the school (other libraries and information sources)

- All materials should be centrally cataloged to provide ease of retrieval, sharing, and networking.

- Money spent should be allocated regularly and as curricular changes take place so that targeted funds are accountable to the function supported (where the money came from, where it is going, where it went, and what impact it had).

- Library media teachers should prepare a "collection map," which is a graphical representation of strengths and weaknesses of the collection by curricular areas. Maps show current collection strengths by topical areas, collection building targets for the future, and cost of reaching collection building targets.[10] Maps can be used to show to faculty, administrators, school boards, and parents to help justify continued support, show progress, and detail impact. Maps become the report card of collections and show their impact on curriculum.

[10] Loertscher, David V. *Collection Mapping in the library: Building Access in a World of Technology.* Hi Willow Research and Publishing, 1996. (P.O. Box 720400, San Jose, CA 95172-0400)

Sample Interview Questions for a Library Media Teacher

During an initial and subsequent interviews, administrators have the opportunity to discern the vision and leadership potential of the library media teacher who will translate an expensive laboratory of things, wires, and networks into a learning laboratory supporting the instructional program. In turn, the interviewee will have an opportunity to discern whether you as the instructional leader have a commitment to the potential of the library program.

Below are a few questions to stimulate a profitable discussion of vision and values:

- ❑ Tell me about your educational preparation for this position as a library media teacher.
- ❑ What is the significance of the national guidelines and standards for the library program in a school?[11] How might they apply to the educational program of this school?
- ❑ How would you collaborate with teachers to plan, execute, and evaluate units of instruction?
- ❑ What would you do to integrate the library program with the reading program to produce avid and capable readers?
- ❑ What would you do through the library program to enhance learning through technology?
- ❑ What would you do to promote a program of information literacy rather than just library skills?
- ❑ How would you integrate technology into the library program to make the library "Network Central?"
- ❑ What is your view of how teachers and students get access to the library, its materials, and its technology?
- ❑ Describe what I might see if I were to visit your library program during a typical hour.
- ❑ What is your view of how you and I could work together to stimulate academic achievement?
- ❑ How might we work together to get the needed financial support to improve the library and make it a viable entity over time?
- ❑ Other:

[11] Currently, the national guidelines are in the publication *Information Power*, published by the American Library Association. In 1998, new national guidelines and standards are to be published.

Buying a Pig in a Poke: Recognizing Fads and Gimmicks

With the invention of every technology has come the entrepreneurial imaginings of how education could be used to generate a healthy revenue stream for businesses. Grandiose schemes involving technology costing millions of dollars are touted as the solution to a host of educational ills.

The sage advice, "If it sounds too good to be true, it probably is," applies here. Stories abound of high-powered salesmen influencing administrators on the golf course—and whether there is any truth to that notion, a checklist of quality concerns is in order:

Checklist for Technology System Evaluation

Consideration Stage:

- ❑ The advertised benefits match school and district curricular goals.
- ❑ The system has a track record that can be verified:
  - a. Through objective research studies.
  - b. Through site visitations including interviews with teachers, library media teachers and students.
  - c. Through site visitations that most nearly match the type of school and community you have.
- ❑ What are the disadvantages of the system?
- ❑ What will happen to students who do not do well using the proposed system?
- ❑ If the promised benefits are not realized, what will the fallout be?
- ❑ Other:

Costing Stage:

- ❑ An accurate cost projection has been formulated and presented up front.
- ❑ Inservice training costs have been included in cost projections.
- ❑ What can this system do that cannot be done more simply and at less cost?
- ❑ Can a cost/benefit analysis be done?
- ❑ Other:

Analysis of Support Stage:

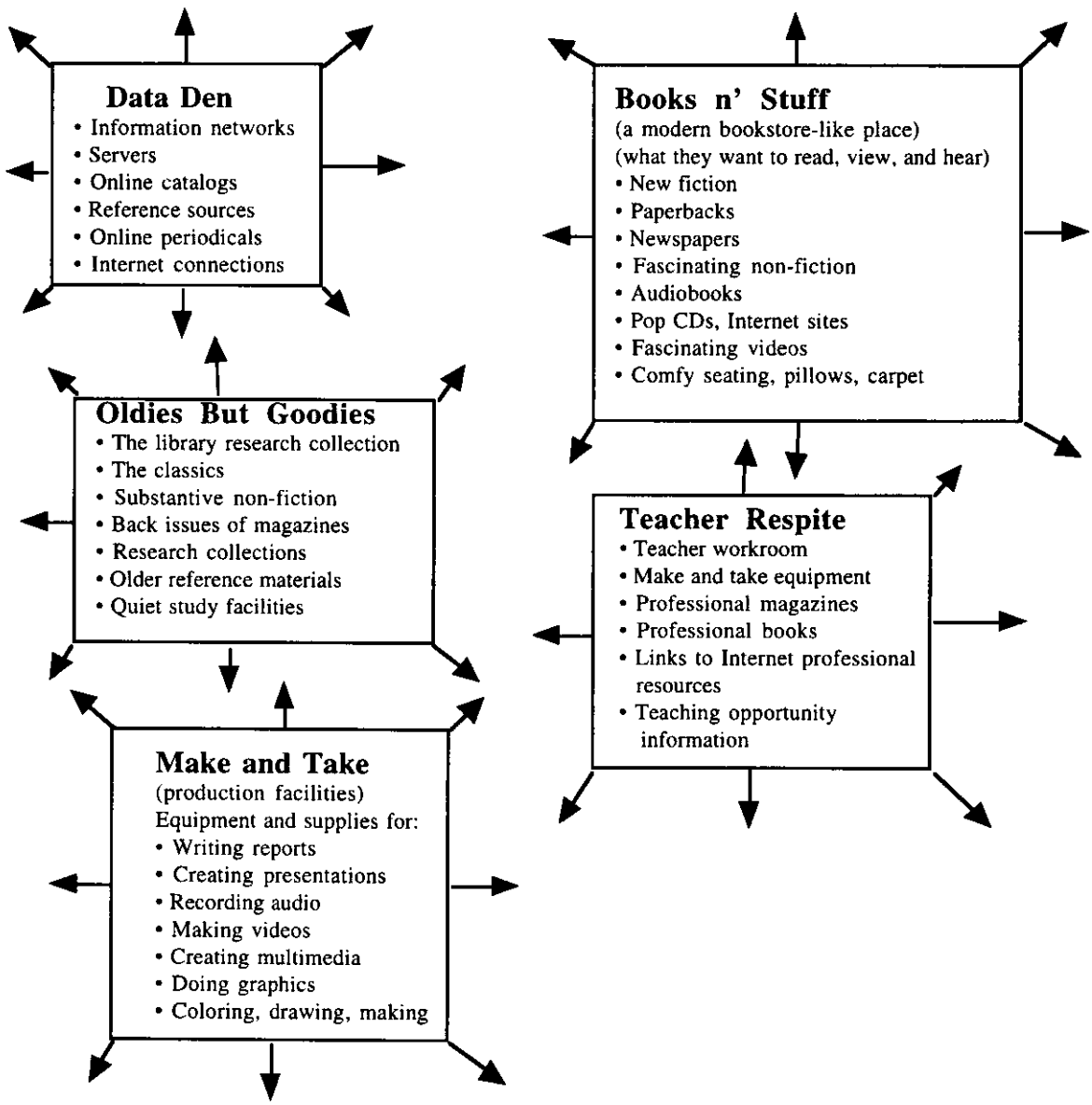
- ❑ The company has a track record for supporting its products after the sale. This can be verified.
- ❑ Other:

Decisions Stage:

- ❑ Contracts do not commit the school or district beyond a reasonable trial period.
- ❑ Decisions to purchase the system are made only after extensive input from those who will have to implement the technology
- ❑ Other:

The Five Functional Corners of a Library Facility

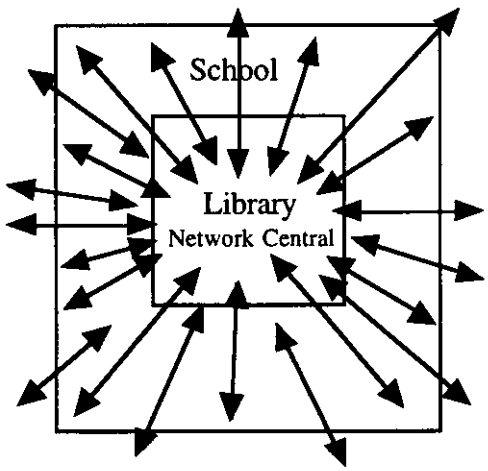
The following diagram shows five major functional areas of the library and the concept that services radiate from each functional area out into the total school environment.

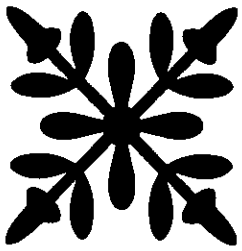


Facility Usage of Network Central (The Library)

Network Central, 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 space is really supporting a learning laboratory operation.

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





Dealing with Challenged Materials and Technologies

Fears from parents and organizations about what students are being taught or exposed to can bring on individual, group, or whole community battles. Pornography on the Internet is just one of a number of concerns currently being discussed widely.

When students are exposed to a wide variety of information sources, they will automatically encounter good information, opinionated information, unpopular ideas, and seditious ideas. There are risks in the world of free ideas and the argument generally revolves around "at what age should children be allowed to encounter various types of ideas." Consider a few major principles:

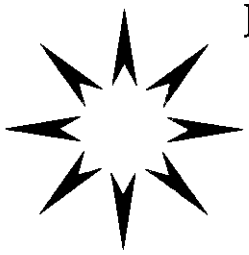
- Free speech and ideas found in books, periodicals, the Internet, and from personal contact have always been dangerous to the status quo.
- Controversy generally arises in the areas of politics, religion, sexuality, and foul language.
- There is no such thing as a non-controversial book, movie, Internet site.

Each school administration, faculty, and library media teacher needs to anticipate controversy and be prepared to deal with it. Waiting until objections arise is not a sound plan!

Preparations checklist:

- ❑ We have a selection policy covering all materials and information technologies, including the Internet, adopted and in force.
- ❑ Our selection policy includes an acceptable use policy covering student behavior on information networks.
- ❑ Our selection policy includes a process for dealing with challenges (written complaints, review panels, rulings, follow-up policy consideration).
- ❑ The entire faculty has been educated about the selection policy; the acceptable use policy, and how to apply it in day-to-day situations. They know what to do when someone complains.
- ❑ When someone complains, we remember we have a selection policy! We apply it when challenges occur.
- ❑ Other:

- **Hint to Principals:** Ask the library media teacher to supply you with a wide variety of information on this topic and study the issues carefully. This is one area that must not be ignored. It cannot be on a "get around to it" agenda.



Networking with Other Agencies

Numerous agencies both within and without the school district may provide significant assistance in achieving the mission of the library program in a single school. Public libraries, civic organizations, social service agencies, school district services, regional centers, state departments of education, and libraries in any part of the world are worth checking for assistance, advice, and information.

Be sure to periodically review all contracts and services with outside agencies to ascertain whether the services provided are worth the costs encumbered. Cooperation is not a substitute for serving your own school. It assumes a sharing stance: I have something to lend and would appreciate borrowing.

Many thousands of dollars can be saved, services used, cooperative programs established, and electronic links created. Look for the following and more:

Networking/Cooperation/Contractual Checklist

❒ Agencies negotiating lower prices because of higher volume purchasing for equipment, software, and materials (as long as quality products and services result).

❒ Delivery of educational television, video, service contracts, site licenses, Internet access, distance education access.

❒ Maintenance and repair services or contractual arrangements with reliable firms.

❒ Grants and funding sources assistance.

❒ Cooperative connections to various networks and information services at reasonable rates.

❒ Testing and evaluation analyses of equipment and software.

❒ Inservice and professional development for all levels of personnel.

❒ Professional associations, conferences, and exhibits for preview and inservice training.

❒ Summer reading programs.

❒ Joint information systems (catalogs and networks).

❒ Cooperative materials acquisitions.

❑ Other:

Adding Up All the Costs

Building a school-wide information-rich laboratory is not cheap. Yet, the investment can produce enormous benefits if the library staff and the classroom teachers are working together to enhance learning experiences.

Superintendents and principals must be able to justify the effort and expenditures to the general public—in short, they must compute in their minds some sort of cost/benefit analysis. Numerous ideas have been given in this book for participating in and monitoring the library program just enough to sample the benefits of the program.

Take a final look at all the costs computed in the various segments of this publication, probing for value-added signposts.

1. Collaboration: The Key Element for the Entire Program
- What are the human costs attributable to this program element? (from p. 18)
- What are the benefits of the collaborative program on instruction? (from p. 19)
- Are the benefits known to the community and to the board?
- What needs to be done to maximize benefits in terms of cost?

2. Building Avid and Capable Readers
- What is the cost of providing a print-rich environment in the school? (from p. 27)
- What are the benefits to the reading and literacy programs of the school? (from p. 28)
- Are the benefits of supporting books and libraries as a part of literacy known to the community and the board?
- What needs to be done to maximize literacy for the amount spent each year on reading materials?

3. Enhancing Learning Through Technology
- What is the cost of providing an information-rich technological environment?(from p. 40)
- What benefits to learning have and are being identified? (from p. 41)
- Are the benefits of increased learning through technology known to the community and the board?
- What needs to be done to maximize the amount of learning from the technology we have?

4. Creating an Information Literate Learner
- What are the human costs attributable to this program element? (from p. 49)
- What are the benefits of information literacy training on students? (from p. 50)
- Are the benefits of increased information literacy known to the community and the board?
- What needs to be done to maximize the amount of learning from the information literacy program we have?

How would you rate the impact of the library program versus its costs?

Do Your Own Assessment: Adding Up the Entire Impact of of the Library on Academic Achievement

Compile the evidence suggested throughout the book and then complete a report card for each of the following major statements:

1. The state of collaboration between the faculty and the library staff. (from p. 19)	A B C D F
2. The contribution of the library program to reading. (from p. 28)	A B C D F
3. The contribution of the library program to enhancing learning through technology. (from p. 41)	A B C D F
4. The contribution of the library program to information literacy. (from p. 50)	A B C D F
5. The state of Network Central: The Information Infrastructure. (from pp. 50-59)	A B C D F

The Bottom Line:

Are students and teachers doing better?

Index