

California Project Achievement

(A National Initiative to Collect and Present Evidence that Links
Library Media Programs to Student Achievement, 2003-05)

Brief Guide & Handouts (May 28, 2003)

by
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Salt Lake City UT
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Timeline for California Project Achievement

Late May, 2003 – Blitz of California by DVL doing workshops.

Advocacy website comes up. (<http://www.davidvl.org>)

Sept. 12 – Fall Announcement of Project Achievement

Announcement of Achieve Listserv linking everyone in the project

November – At CSLA conference in Ontario – Meet with David Loertscher in either of his “Evidence-Based Practice” presentations, Thursday or Friday

Plan next steps at that meeting.

Continue communicating on the Achieve Listserv

January-April, 2004 – Participants make presentations of evidence gathered to anyone who will listen.

Continue to gather evidence.

Reminder: The Advocacy Web Site and Project Achievement can be found on: <http://www.davidvl.org>

Do invite all California library media teachers to participate

The California Project ACHIEVEMENT Through School Libraries

David V. Loertscher – May 28, 2003

What: Project Achievement Through School Libraries seeks to demonstrate that school library media programs staffed by credentialed library media teachers do make a difference in achievement.

When: 2003-04 school year in California

Who can participate: Schools where the library media program is staffed by a credentialed LMT or a person being educated for that credential.

Sponsors: San Jose State University School of Library and Information Science (David V. Loertscher, Professor), California School Library Association.

Description: Participating LMTs will lead their schools in several demonstrations projects, data collection techniques, and evidence-based practice initiatives designed to contribute to achievement. This project will focus on demonstrating a difference in:

- ❑ Content learning
- ❑ Reading
- ❑ Information literacy
- ❑ Technology
- ❑ Collaborative planning

Participating LMTs are expected to design a project that fits in with their local school achievement initiatives. A great deal of latitude is expected to meet local needs and evidence of impact will be focused on a single school/district. Those who participate successfully and report their results will receive statewide recognition.

How: Register to participate by contacting David V. Loertscher at davidl@wahoo.sjsu.edu You will receive instructions and be enrolled in an online discussion support group. Participants will also meet at the CSLA conference in Ontario.

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davidlmc@qwest.net The author acknowledges the assistance for some of these materials by Douglas Achterman, library media teacher, San Benito High School, Hollister, CA.

INTRODUCTION

Three Evidence-Based Strategies

As a part of the total school's data-driven decision making, the library media center and technology programs need to contribute their part to ongoing data to assess their impact on student achievement. This can be done using:

- Ongoing data collection instruments (daily, weekly, monthly measures).
- Evidence-based practices at opportune moments.
- Action research projects (studies within the school or district designed to answer local questions).

Build Ongoing Data Collection Sets and Reporting Procedures

Set in motion various data gathering mechanisms that will monitor operations, program elements, and organizational support for regular analysis and reporting. They can be collected:

- In real time (for example, hits on an online database)
- Periodically (recording collaborations in a log book or database at the end of the day)
- For special projects (a time analysis of various activities on three typical days for a research project)

Evidence-Based Practices at Opportune Moments

There are numerous techniques that allow the professional staff to measure the effectiveness of various program elements as they occur. For example, the use of a special technology to make a new learning experience possible, or student use of online resources as cited in student products, or documenting the amount of learning and success of information literacy strategies in a learning experience. In isolation, a measure may not be impressive, but added to others over time, patterns emerge that provide evidence of impact.

Design Action Research Projects

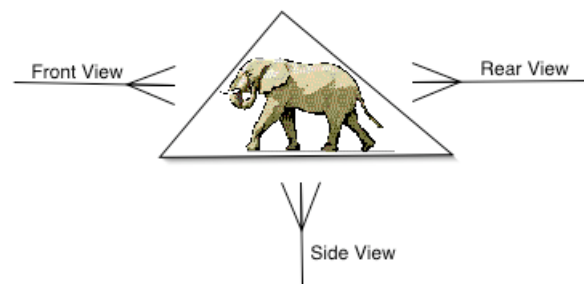
A more formal approach to data-driven decision making is to conduct actual research projects that address specific questions about the effectiveness of the LMC and technology programs. A school-wide initiative or a grant may require documentation of impact. What we teach learners to do every day can be transformed into action research project design. Note the similarity between a generic information literacy model and an action research project design.

GENERIC INFORMATION LITERACY MODEL	ACTION RESEARCH PROJECT DESIGN
Build a Question	Build a research question; Create a methodology
Find and sort information	Collect data
Consume and absorb the information	Analyze the data
Think and create	Analyze, analyze, analyze
Summarize and conclude	Draw conclusions
Communicate	Report the results
Reflect on process and product	Reflect; Take action

Challenge: Design and carry out a mix of all three strategies as a part of contributing to the entire school's effort to build achievement.

Triangulation of Data-Driven Practice

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



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

Data from the organizational perspective. Common measures at the organization level are size of facilities, the equipment available, the amount of funding provided, and the size of collections or staff. All these factors might be termed “inputs” or the resources we have to make a difference. They are often reported to accrediting agencies and in local reports to administrators and boards. The Lance studies of LMC impact looked at many inputs as they affect the “output” – reading scores.¹

Data from the learning unit level. Data can be collected about the various learning experiences that are designed by adults to interact with LMC materials and technology. That is, we begin examining the impact of our resources on teaching and learning. “Because we have this, we did that.” Data collected from the collaborative activities of teachers and LMC staff are quite powerful in describing impact. For example, the Lance studies did note that achievement was affected as the amount of collaboration between teacher and LMS staff increased.²

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

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

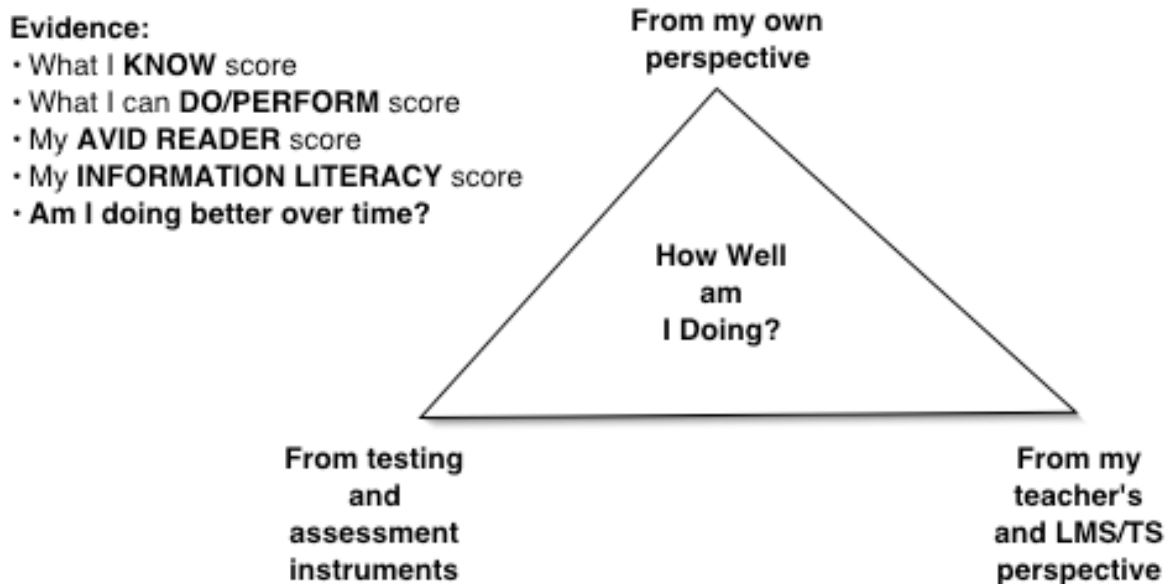
¹ See Lance, Keith Curry and David V. Loertscher. *Powering Achievement*. 2nd edition. Hi Willow Research & Publishing, 2003.

² *Ibid.*

Learner Level

Evidence-Based Practice Triangulation of Data

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



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

Teaching Unit Level Evidence-Based Practice Triangulation of Data

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

Evidence:

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



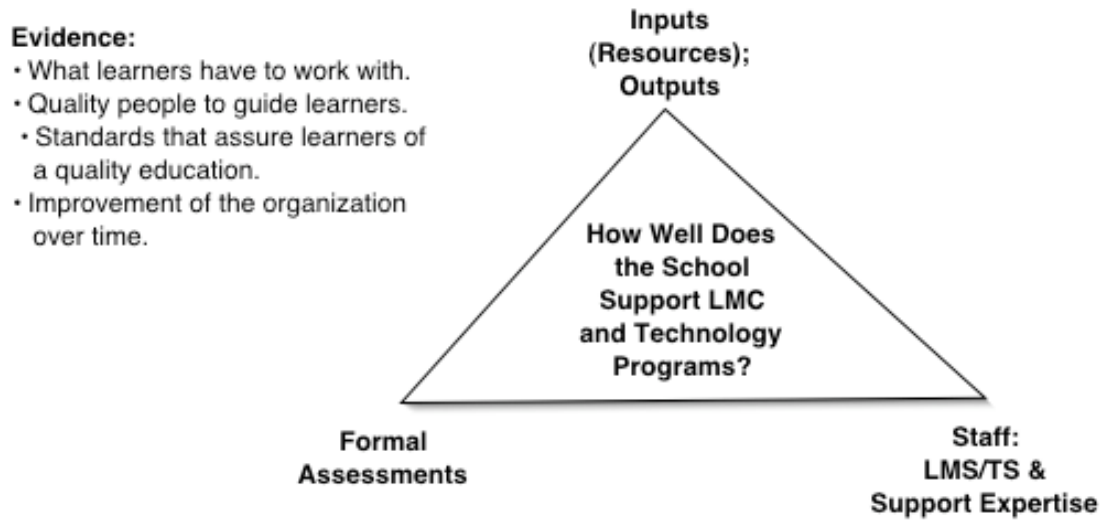
Sources of evidence:

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

*Miller, Nancy. Impact! (LMC Data Collection Analysis). Salt Lake City, UT: Hi Willow, 2003.

Organization Level Evidence-Based Practice Triangulation of Data

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



Sources of data:

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

Examples of Evidence-Based Practice Projects

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

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

Assessment Resources

Numerous techniques have been developed to assist in measuring the impact of educational programs and initiatives on learners and learning communities. The variety spans various sophistication levels and research methodologies. The emphasis in recent years has been toward more objective and scientific methodologies. However, human factors and ethical considerations do not allow us to treat learners as laboratory animals in our quest for predictive strategies that work. On this page, a few helpful resources for the more serious researcher are listed.

- Data in a Day (DIAD) is a 24-hour process through which a school can involve their entire community in a self-study. It is flexible and can be adapted for many purposes; it focuses on teaching and learning in the classroom, relies heavily on student voice, and has the potential to involve the entire school community. A complete description can be found in *Look Who 's Talking Now: Student Views of Learning in Restructuring Schools*. (Kushman, 1997) Also at: <http://www.ael.org/rel/quest/dataday.htm>
- Sagor, Richard. *Guiding School Improvement with Action Research*. Alexandria VA: ASCD, 2000. A guide to building local research studies for higher reliability and to feed sound decision-making.
- *Analysis of Process* – a technique of rating the conditions needed to enhance the organization’s impact on teaching and learning. Created by Jim Cox, this technique and instrumentation is available through the Technology Information Center for Administrative Leadership (TICAL) at: <http://www.portical.org/d3mtools.html> (see ”Identifying program elements to improve student achievement” under the Data Driven Decision-Making Tools)
- Porter, Bernajean. *Evaluating Student Computer-based Products: Training and Resource Tools for Using Student Scoring Guides*. Sedalia, CO: Bernajean Porter Consulting, 2001 – Provides extensive assistance in developing thorough rubrics to rate the learning contained in student products.
- **ICAN:** Individualized Curriculum and Assessment Notebook. Indiana Department of Education. At: <http://www.ICANtech.com> - a web-based software system that manages individualized curriculum, assessment, and analysis through standards-based accountability. Teachers use an elaborate computer program that helps them track what standards they are working on, track progress, and provides a reporting mechanism for analysis and for personal assessment of teaching.

The Quality of the Total Assessment A Reflection

If evidence-based practice is going to succeed, the various data-collecting mechanisms must work, but most importantly, not interfere with the LMC and technology programs. Professionals and support staff need not spend an inordinate amount of time trying to measure what is happening lest the act of measurement destroy the program itself. The following chart may assist the professional in designing and carrying out measurements that work.

Ongoing Data Collection

- | | | | | |
|--|-----|--------------------------|--------------------------|----|
| ➤ Does it integrate easily into daily routines? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |
| ➤ Does it take little time/attention to gather? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |
| ➤ Is it immediately useful in pursuit of school goals? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |
| ➤ Does it reflect accurately what really goes on? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |
| ➤ Is it easily analyzed and reported? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |
| ➤ Is it simple? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |

Action Research Project

- | | | | | |
|--|-----|--------------------------|--------------------------|----|
| ➤ Is the research question clear? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |
| ➤ Is the research design sound? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |
| ➤ Are the data collection instruments well designed? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |
| ➤ Is the data collected accurate? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |
| ➤ Are statistical analyses properly used? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |
| ➤ Is the interpretation of the data thoughtful? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |
| ➤ Is the presentation of the results understandable? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |
| ➤ Are learning strategies changed based on the findings? | Yes | <input type="checkbox"/> | <input type="checkbox"/> | No |

STRATEGY 1: Educating California About Library Media Programs

Purpose: General Information

Audiences: school, community, governments

Level: Organization Level overviews

California schools and communities have been without school libraries for a generation and generally don't know what they don't know. Teachers, in particular, have been without a school library for so long that they have learned how to teach without one (to the detriment of their students, we might add).³ For those who have memories of libraries pre-Prop13, the role of the 21st century school library media center is unlike what they knew from the early 1980s.

A continued effort to educate the school community and general public about the role of a 21st century library media program should be based on the concept: DO, ASSESS, ENLIGHTEN. That is, act the role first, assess its impact, and broadcast its impact and its potential. All can ACT the role in some of its aspects no matter the budget, the facilities, the staff, or the school climate.

Possible Strategies:

- 1A. What a library media teacher does.
- 1B. The state of the school/district collection over the past five years.
- 1C. The construction of the digital school library (and what usage is beginning to demonstrate)
- 1D. The state of CA's school libraries as compared with the nation.
- 1E. School-wide initiatives and how the LMC program has contributed.

Possible Audiences:

- Parents
- PTAs
- Local newspapers
- Business community
- Teachers and administrators
- Professional organizations
- Educators in training
- Professional development
- Community organizations

³ Lance, Keith and David V. Loertscher. *Powering Achievement*. 2nd Ed. Hi Willow Research & Publishing, 2003.

Strategy 1A What a Library Media Teacher Does

Possible points to cover by category:

Organization:

Library media teachers not only manage a million-dollar organization but they develop an information system that extends from the LMC into the classrooms, into the home, and at some point will appear on the student's personal information device (PDA).

LMTs don't just manage a room full of "stuff." They concentrate their efforts in boosting achievement in four principal ways:

Information Literacy

LMTs teach young people to use ideas and information by teaching them how to build a research question, find quality information, think their way through that information, communicate their findings, and to finally reflect upon what they have learned and how they learned it.

Reading

LMTs are literacy's great friend. While teachers may concentrate on the **skill** of reading, LMTs focus on building the **love** of reading. LMTs are the best friend an English learner has because they provide a banquet of materials to meet every learner's skill level and interest level. LMTs think that "amount counts" for each reader – that building a reading habit provides each learner with a fishing pole rather than a fish. LMTs concentrate on providing access to tons of reading materials in all genres and all formats to stimulate interest so that we leave no child behind.

Technology

LMTs do not concentrate so much on the wires – rather on what's ON the wires. LMTs see technology as a tool – helping learners to become EFFICIENT users of ideas and information. LMTs team with teachers to enhance learning through technology rather than just using technology for technology's sake.

Collaboration

LMTs are a teacher's best friend in building achievement. Teachers who move a learning experience to the LMC suddenly find two teachers rather than one teaching, leading, coaching, and motivating each learner. LMTs help teachers use a wide variety of materials to boost both content learning and to help students learn **how** to learn. LMTs concentrate on helping every teacher become a better teacher. LMTs help shoulder the load of raising student achievement – they **are** teachers rather than support personnel. LMTs are a second physician for the patient's ills, not the attending nurse.

What the research says:

Research from eleven states and over 4,000 schools documents that credentialed LMTs raise achievement scores anywhere from 8-20%. Support personnel alone in an LMC do not raise achievement but credentialed LMTs do. Why? Because the LMT concentrates on teaching and learning rather than on managing a warehouse. When there is no LMT, achievement suffers – its people rather than just things that make the difference.

Strategy 1B

The State of the ____ (school/district name) School Library Collection

Possible Points to cover:

1. Draw a 5-year line graph of spending on materials for the collection
 - a. State funds per student (start at zero then to \$28 and show this year \$.93? and next year \$.30?) (Check these figures)
 - b. Superimpose local funds per student on the line graph above
 - c. Add grant funds per student over the same period.

2. Show the impact of this spending on:
 - a. The size of the collection over the five plus years
 - b. The quality of the collection
 - i. Items retired (weeded)
 - ii. Increase in copyright date
 - iii. Special collections to support curriculum built (describe)
 - c. Impact on teaching
 - i. Curricular areas benefiting
 - ii. New tools acquired and in use (software, techniques)
 - d. Impact on circulation and student interest including materials they can use for both homework and enjoyment.
 - e. Likely forecast of decreased spending
 - i. On print collections
 - ii. On digital collections
 - iii. On copyright
 - iv. On usefulness to teacher and students (the increase of mis-information)
 - f. Results of a poll of students/teacher who have seen the collection grow and develop.

Other Topics Related to Collections to Report

1. Why isn't a textbook enough? (Did you realize that only ____% of the children at this school are on grade level and can read their textbooks?) The LMC provides information for every child, regardless of reading level.
2. How much do LMC collections cost vs. textbooks? (A single textbook costs between \$50-\$70)
3. What does a good LMC collection cost?
 - a. To **maintain** a collection, spend the equivalent of one book per student per year or the cost of 500 books, whichever is greater (small schools need a larger budget)
 - b. To **build** a collection, spend the equivalent of **two** books per student per year or the cost of 1,000 books whichever is greater.
4. How large should a collection be? (California standards say that there should be 20 (current, exciting...(find the adjectives) books per student in every school (this will not work in small schools – and it won't work if the adjectives are not considered).
5. What can parents do to keep the collections current? (They can give money to buy at least one book for their children each year as a birthday book; they can mention the need to administrators, parent groups, and legislators.)

Strategy 1C
The Construction of the Digital School Library

Possible points to cover:

- The LMTs of California are building the digital school library as a: **Safe, “Smaller,” High Quality, and Useful** information system designed to increase student efficiency and maximize their learning.
- This information system is designed to be available 24 hours a day, 7 days a week in the LMC, the classroom, in the home and at some point on a student’s PDA.
- Outline the features of your digital school library for:

Students
<ul style="list-style-type: none"> • Homework help • Assignments • Instant info for assignments • Periodical collections • Good reads • Reference tools • Productivity tools • Access to other libraries • The best of the Web. • Other:

Teachers
<ul style="list-style-type: none"> • Assignments for students • High quality information sources for those assignments • Professional helps • Links to standards • The best of the web • Policies/regulations • Safety/emergency info. • Other:

- Describe the difference between what’s free and what’s fee in the digital school library.
- Describe the consequences of lack of spending on the digital school library.
- Describe access issues to the digital library and how those are being handled.
- Provide evidence of how the digital school library is being used (various counters in various sections, databases, teacher’s assignment pages, etc.).
- Describe the future possibilities of the digital school library.
- Provide your URL for the library and ask all to come see for themselves. (Explain why some sections of the library are not accessible without a password).
- Invite parents to use the digital school library first when helping their children with homework rather than “Googling” first. Ask teachers to reward students for starting with the DSL rather than surfing the web first.

Strategy 1D

The State of the CA School Libraries and How They Compare

Points to cover:

- This comparison is already on the web at schoollibraries.org (CSLA website)
 - How your school compares to what a “normal” teacher and student in the U.S. experiences every day.
 - Ask what the likelihood is that our children will successfully compete with the rest of the nation’s children who have information-rich and technology-rich learning environments.
-

Strategy 1E

School-Wide Initiatives and How the LMC Program Has Contributed

Possible initiatives:

- Literacy initiatives
- Technology initiatives
- Safety and security programs
- Standards-based initiatives
- Second-language learner programs
- Cultural celebrations
- Standards-based initiatives
- Curricular change

Points to covers:

- History of the initiative
 - How you helped
 - With what result
 - Future of the initiative and how the reader can help.
-

Strategy 2: Build Assessments That Combine Teacher and LMT Concerns

In some recent research done for an article in *Learning Quarterly*,⁴ school library media specialists were polled around the United States asking those who combine assessment of student research in the LMC with the assessment done by the teacher. Some 22 persons in 11 states responded giving credibility to the following technique of demonstrating the impact of the LMC program on achievement.

When teachers bring a learning unit to the LMC, create a rubric or other assessment that measures content learning, information literacy, use of technology, and the amount read. In other words: every student will realize that to get an “A” for the assignment, the project/research will be judged on what I learned about the topic, how well I did the research (information literacy), how I used technology to learn what I needed to learn, and how much I read connected to the topic.

Technique:

1. During the planning of a unit of instruction that a teacher will bring to the LMC, identify the state standards applicable to the unit.
2. Create a combined rubric that will assess:
 - a. Content learning
 - b. Information literacy taught
 - c. Wise use of technology
 - d. Amount read
3. Create collaborative teaching activities for the classroom and the LMC that will meet the standard and the rubric items.
4. Make the students aware of the rubric during the introduction to the unit so that they understand what they do in the classroom and the LMC will be part of the assessment.
5. Teach the unit jointly
6. Jointly assess student success using the rubric.
7. Assign the “grade” and reflect together as well as with the students.

Advantages:

Quotes from users of the technique:

- What is assessed is valued.⁵
- Learners no longer consider classroom/library work as “blow off” classes.⁶
- Rubrics gave the learners focus, they knew how to proceed, and they were more successful and felt more successful.⁷
- The most marked change in our students were from those reading at or below reading level.⁸
- The collaboration turned to a partnership rather than teacher and resource person.⁹

Anyone who adopts this technique has direct evidence of learning at the learner level, can compile evidence at the classroom or group level, and can provide evidence of impact across the school teacher by teacher, grade by grade, and discipline by discipline. It is one of the most direct pieces of evidence that can be collected.

⁴ *Learning Quarterly* is a supplement to *School Library Journal*. David Loertscher and Blanche Woolls have edited an issue to appear Summer, 2003 in the June issue of SLJ with the topic of assessing the impact of the school library media program on achievement. Users of this handout should consult that issue for more information.

⁵ Debbie Abilock, Assistant Head, The San Francisco School, San Francisco, CA.

⁶ Kathy Boguszewski, Wisconsin

⁷ Dorcas Hand, Annunciation Orthodox School, Houston, TX

⁸ Sharon Grimes, Lansdowne Elementary School, Baltimore County Schools, MD

⁹ Ann B. O’Neill, Franklin High School, Baltimore County Public Schools, Baltimore, MD

Strategy 3: Make a Difference in Teaching Information Literacy Methods of Teaching Information Literacy

InfoLit
Introduction

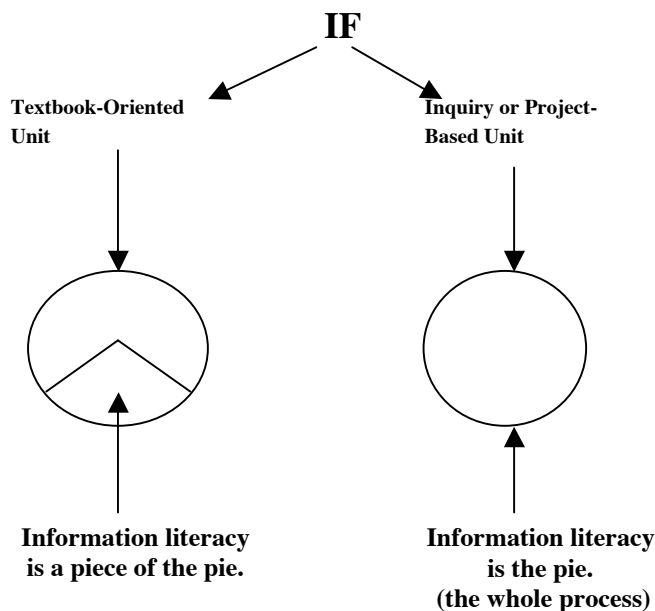
Library media specialists teaching information literacy have sometimes succumbed to the temptation of teaching those skills as a course of instruction or “library lesson.”

Such an approach has been rejected as time consuming and inefficient. Rather, the professional literature recommends the integration of information literacy skills at the point when learners will use them.

As the illustration at the right shows, sometimes this teaching will take place as a mini-lesson when students are assigned a project and come to the library media center to do research.

However, if the teacher is doing an inquiry unit or a major project, the information literacy teaching will form the scaffolding of the entire research process. There will be a number of information mini-lessons as the research progresses.

In either method, the illustration at the right shows how the two agendas are co-mingled to insure accountability for both educators.



Information Literacy Skills To be Taught	Unit Planning Form
<ul style="list-style-type: none"> • Building Questions • Finding Information • Absorbing Information • Thinking • Concluding • Communicating • Reflecting 	<ul style="list-style-type: none"> ➤ State Academic Standard ➤ ... ➤ ...

List the skills here for a certain grade level. Use as a checklist for integration. Over the year, all should be covered so that learners are more sophisticated at the end of the year than they were at the beginning.

Print a favorite unit planning form here. It can be paper or electronic but is used by both the teacher and the library media specialist.

Assessment of Information Literacy

Both learners and teachers are often quite willing to invest time and effort to integrate information literacy into lessons, believing that “content learning” is paramount. However, analysis of state standards and standardized tests reveals that information literacy is indeed a part of the total expectation for learners. Collecting, reviewing, and reporting data at the organizational level, the teaching unit level and the learner level will help assess the impact information literacy is ready to make and is making in the school.

Level of Measure	Factor	Sources of Data
Information literacy at the Organization Level (District and School)	The state of information literacy in the school and district.	<ul style="list-style-type: none"> <input type="checkbox"/> Evidence that district and school library media professionals have plans in place to deliver information literacy as a part of the state standards. <input type="checkbox"/> Evidence that professional development opportunities exist to assist teachers and library media specialists to integrate information literacy into the curriculum. <input type="checkbox"/> Evidence that scheduling, planning time, and other organizational factors allow information literacy to be a regular part of instruction. <input type="checkbox"/> Evidence that state information literacy correlation documents have been considered in local information literacy plans.
Information literacy at the Teaching Unit Level (class interaction and use)	The success that the class and the teacher experience during a unit of instruction both in the classroom and the LMC when information literacy is integrated into the learning experience.	<ul style="list-style-type: none"> <input type="checkbox"/> The percent of students who followed an information literacy model as a guide during a research project. <input type="checkbox"/> The percent of learners who logged their way through a research project and drew their own information literacy model. (See next page) <input type="checkbox"/> The percent of the faculty that could be categorized as successful integrators of information literacy into learning. <input type="checkbox"/> The number and percent of time during a sample month that information literacy could be said to have “contributed to learning” during collaborative activities in the LMC <input type="checkbox"/> The # of information literacy lessons taught across the various disciplines or grade levels.
Information literacy at the Learner Level (as individuals)	Individual progress by each learner as information literacy becomes a trusted strategy in each learner’s education.	<ul style="list-style-type: none"> <input type="checkbox"/> Rubric score that an individual used information literacy to enhance a project after being taught its use. <input type="checkbox"/> Rubric score that content knowledge was enhanced through information literacy. <input type="checkbox"/> Rubric score that the local standards for technology literacy and information literacy were met.

InfoLit
Learner
Level

Logging and Assessing the Investigative Experience: A Sample Form

During a major research project, have learners track their progress and sketch the information literacy model they used to accomplish their research. Create a form for your own learners.

My Research Log

My name: _____ Assignment title: _____
(Make a list/log of what you did first, next, next, etc. Include comments about problems you had.)

Self-Assessment Rubric

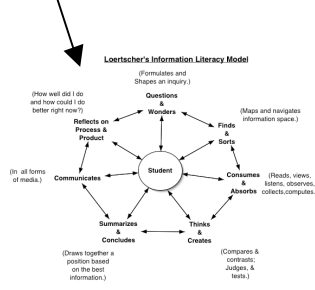
(Am I an organized investigator? And, Am I making improvement?)

-
-
-
-
-
-

___ My Score

A Drawing of the Information Literacy Model I Used:

The class used this model:



Longitudinal Progress in Information Literacy

First scenario to duplicate locally:

Jan Ludley, the LMT in a middle school worked with the eighth grade social studies on three projects during a school year – October, January and April. Each time, students kept logs of their library research projects (as illustrated on the previous page) and received points as part of their total grade. After each research project was completed, Jan gathered all the student logs and filed them in a folder. After the April research project was completed and the logs were ready to pass out, Jan and the teacher passed out the previous two research logs and at the beginning of a “reflection” period in the LMC had each student arrange their three logs in chronological order in front of them. Students were asked to write a short essay as they looked at the three logs. Had they made any progress in their research skills over the year? Which skills improved? Which stayed the same? Which were still major problems? After a 7-10 min. private reflection, Jan and the teacher opened up a whole-class reflection talking about their progress over the year. To their delight the students were quite frank about their success and their challenges. Jan and the teacher met for a few minutes after and wrote some goals for the next school year. They reported their success to the principal who had been following their project over the year. They were not surprised to receive an invitation to give a progress report at the first faculty meeting professional development day the next fall term.

Possible goals for a yearlong information literacy challenge:

1. Begin with the LMT providing a narrow range of resources for students for the first research project in the fall but gradually challenging the students in successive projects to do more finding on their own.
2. Begin with simple research questions and progress in complexity over the year.
3. Over the year, concentrate on teaching information sorting and documentation of sources for multimedia sources.
4. Document during the yearlong experience the percentage of students achieving the info lit goals as they become more and more challenging. Add this analysis to the annual report to the faculty and to the board of education.

How else could progress be documented?

1. For individual learners?
2. For groups of learners?
3. For types of learners?

Second scenario:

Troy Myers, the LMT at Bonneville High School collaborated with teachers bringing their classes to the LMC several weeks in advance of their projects. Using the backwards-planning model, assessments were designed so that each project would be graded based on content, information literacy, technology, and amount read. For each faculty member, Troy would grade the projects for the latter three scores while the teacher scored the content element of the projects. As the teacher became comfortable with both a content and a process part of the assessment, the teacher would give the entire grade freeing up Troy to collaborate on other matters. The rate of student success, project by project, was reported both by both Troy and the teacher as a part of annual reports. Their success became one more data source for the entire faculty as they analyzed achievement across the school.

Technology
All Levels

Strategy 4: Make a Difference in Technology Assessment of Technology's Impact

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

Level of Measure	Factor	Sources of Data
Technology at the Organization Level (District vision for effective technology use)	The state of the technology infrastructure in the district and at the building/ LMC/ classrooms	<input type="checkbox"/> Percent of learners who could find an Internet ready computer when needed. <input type="checkbox"/> Number and percent of operational computer connections in the LMC. <input type="checkbox"/> The annual budget to upgrade networks to meet technology plan needs. <input type="checkbox"/> The size and competence of the technology staff for the school. <input type="checkbox"/> Percent of staff who know the technology vision. <input type="checkbox"/> Over time, the number and percent of teachers meeting technology standards.
Technology at the Teaching Unit Level (class interaction and use)	Technology's contribution to teaching design and learning environment	<input type="checkbox"/> The percent of students who would rate the technology as helpful in completing their assignments during a unit of instruction. <input type="checkbox"/> The number and percent of teachers who would report during a sample month that technology had "contributed to learning" during a collaborative activity in the LMC. <input type="checkbox"/> The number and percent of teachers who meet technology standards for teachers at a given learning experience.β
Technology at the Learner Level	Individual progress by each learner as technology becomes a trusted tool.	<input type="checkbox"/> Rubric score for use of technology in a project. <input type="checkbox"/> Rubric score that content knowledge was enhanced through technology. <input type="checkbox"/> Rubric score that technology standards for students were met during a specific learning experience.

Helpful publications for more measures to consider:

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

- Jones, Beau Fly, et. al. *Plugging In: Choosing and Using Educational Technology.* Oakbrook, IL: NCREL, 1995.
- "Technology in Schools: Guidelines for Assessing Technology in Education." A publication of the National Center for Education Statistics, U.S. Dept. of Education, November, 2002. At: <http://nces.ed.gov/>
- Johnston, Jerome and Linda Toms Barker, eds. *Assessing the Impact of Technology in Teaching and Learning: A Sourcebook for Evaluators.* Ann Arbor, MI: University of Michigan, Institute for Social Research, 2002.
- *Planning for DET (Data-Driven Decisions About Technology).* Naperville, IL: NCREL, 1999.
- *Technology Counts* - A yearly report focusing on how technology is changing education. At: <http://www.edweek.org/sreports/tc02/>

Reflecting With Students Concerning Technology

Why Reflect?

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

Who would conduct the reflection?

A mix of the teachers, administrators, the library media specialist, the technology specialist, plus the learners themselves.

When should the reflection happen?

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

What questions might be constructed to ask during a reflection?

Each reflection will have its own set of questions, but the list below is suggestive of topics to broach and adapt to any grade level:

- Here is the state standard/local expectation that we as teachers had for this learning experience (list those used by all teachers and specialists across the various curricular standards). How well do you feel we did as a group in meeting those objectives?
- How well did a certain technology help you as a learner?
- What information sources or systems seemed to help you the most?
- What problems did you encounter with either a technology or information sources?
- What could we do to make sure that technology and information sources serve us better in our future projects?
- How could you help the process more as learners?

How sophisticated should the reflection be?

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

How much time should it take?

Reflections might be as short as ten minutes or as long as a half hour depending on the complexity of the learning activity, the difficulties encountered, and the sophistication level of the learners.

What should happen after the reflection?

- Meet with the other adults involved to plan any changes in program.
- Document the reflection as a part of evidence-based practice at the teaching unit level.

Bottom Line Questions

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

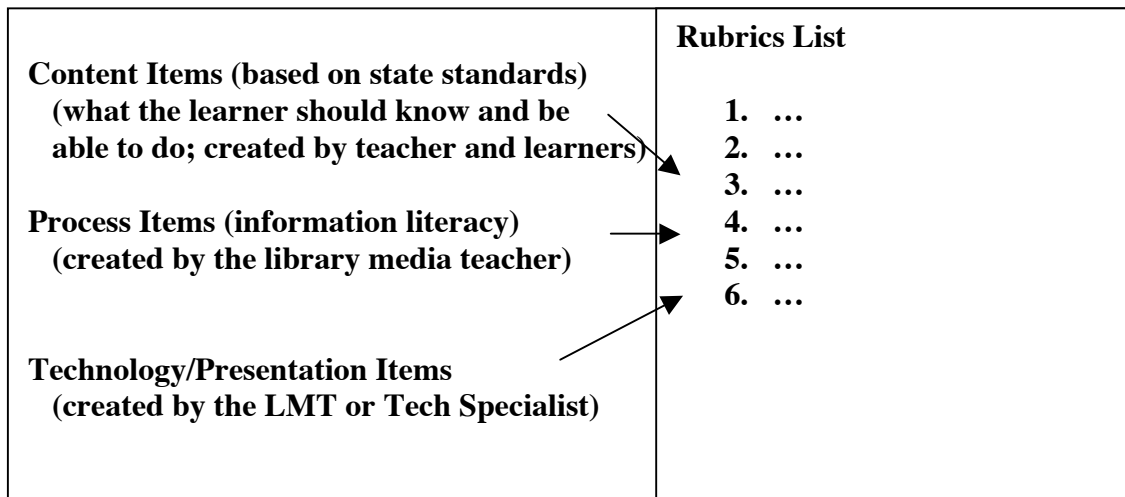
Technology
Learner
Level

Judging Glitz vs. Content in Hi-Tech Products

It is easy to be impressed with the glitz of technology particularly when the student knows more about computers or other high-tech than we do. But glitz is not a substitute for deep learning. Thus the first two commandments of the ten commandments for judging projects for the media fair and for classroom products:¹⁰

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

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



Rubric generators are available from NCRtec to assist collaboration teams in including desirable elements. For example, a holistic scoring guide for a compare/contrast project resulted in numerous items of which one is listed below. See at: <http://www.ncrtec.org/t1/sgsp.index.html>

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

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

¹⁰ What are the other eight commandments, you follow?

Reading All levels

Strategy 5: Make a Difference in Reading

Assessment of the LMC Impact on Reading

For library media teachers, the research is quite clear that our best impact on reading is to provide access to tons of materials kids **want** to read, increase the amount read, and to help learners enjoy reading and develop the reading habit. While we do not concentrate on teaching the **skill** of reading, our actions are essential for the development of every reader.

Level of Measure	Factor	Sources of Data
LMC Reading at the Organization Level (District and School)	The state of the support of both the LMC reading program and the reading curriculum.	<ul style="list-style-type: none"> <input type="checkbox"/> Number and percent of learners participating successfully in school-wide reading initiatives. <input type="checkbox"/> Number and percent of readers who participate in SSR time. <input type="checkbox"/> The number and percent of readers on or above grade level on reading scores. <input type="checkbox"/> The annual budget for reading materials for the LMC reading program meets the needs of the school. <input type="checkbox"/> The number and percent of teachers reading aloud every day to learners.
LMC Reading at the Learning Unit Level (class interaction and use)	The impact the LMC reading program has on classrooms print-rich environments, the language arts curriculum, and units of instruction where reading can be integrated.	<ul style="list-style-type: none"> <input type="checkbox"/> The number by discipline or grade level of collaborative units where a “reading” component is present. <input type="checkbox"/> The extent to which both fiction and nonfiction was integrated into collaborative units. <input type="checkbox"/> Evidence that the LMC reading program and the language arts goals were integrated in a collaborative unit. <input type="checkbox"/> The number of classrooms that have rotating classroom collections from the LMC either for recreational reading or for a topical unit of instruction.
LMC Reading at the Learner Level (as individuals)	Individual progress by each learner as a capable and avid reader.	<ul style="list-style-type: none"> <input type="checkbox"/> The reading scores of an individual student. (see note 1 below) <input type="checkbox"/> Evidence of individual progress in reading from measures other than state or standardized tests. <input type="checkbox"/> Evidence from an attitudinal measure that the learner is both an avid and capable reader. <input type="checkbox"/> Reading log analysis (including amount read). <input type="checkbox"/> Points from electronic reading programs <input type="checkbox"/> Score on Cornwell’s Independent Reading Rubric (see attached)

Note 1: The federal No Child Left Behind Act and the funding through ESEA requires states and schools that qualify for federal money to use “scientifically based” research to systematically and empirically use methods that draw on observation or experimentation. “For reporting purposes, the federal government is requiring that evidence be collected on the number and percentage of K-3 students who are reading at or above grade level. States must also include data on the academic status of subgroups of students who are traditionally “left behind” – students who are economically disadvantaged, come from minority groups, have disabilities, or have limited English proficiency”¹¹ In the real world of schools, as long as the federal data is collected as required, many other techniques and data collection techniques are acceptable. For opposing views to the federal program, read Allington’s *Big Brother and the Educational Reading Curriculum*.¹²

¹¹ “Reading’s New Rules: ESEA Demands a Scientific Approach,” *Education Update*, August 2002, p. 5

¹² Allington, Richard L. *Big Brother and the National Reading Curriculum: How Ideology Trumped Evidence*. Portsmouth, NH: Heinemann, 2002.

Reading
Learner
Level

My Reading Log for _____ (topic of research/assignment/personal exploration)

Things I scanned (quick look/read)

- Books
- Magazines
- Web sites
- Online databases
- Video/multimedia sources

Time I spent:

What types of reading helped introduce me to the topic?

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

Rate each Item:

- * Not worth the time I spent
- **Somewhat helpful
- ***Quite helpful
- ****Everyone should read this; it's that good

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

Rate each Item:

- * Not worth the time I spent
- **Somewhat helpful
- ***Quite helpful
- ****Everyone should read this; it's that good

Reading Learner Level

Independent Reading Rubric

By Linda L. Cornwell¹³

An essential key to becoming a proficient reader is independent reading practice. Research suggests that it is the volume of reading that students do that enhances their reading achievement. The following rubric is divided into four major categories: materials selection, reading behaviors, engagement/attitudes, and accountability.

MATERIALS SELECTION

Developing	Progressing	Proficient
<ul style="list-style-type: none"> Rarely selects materials at his or her independent reading level. 	<ul style="list-style-type: none"> Frequently selects materials at his or her independent reading level. 	<ul style="list-style-type: none"> Consistently selects materials at his or her independent reading level.
<ul style="list-style-type: none"> Limits reading choices to a narrow range of topics or a single genre. 	<ul style="list-style-type: none"> Reads beyond favorite topics, genres, and authors. 	<ul style="list-style-type: none"> Reads a wide variety of genres, authors, and topics.
<ul style="list-style-type: none"> Often has difficulty in selecting appropriate independent reading materials without assistance. 	<ul style="list-style-type: none"> Occasionally needs assistance in finding appropriate independent reading materials. 	<ul style="list-style-type: none"> Finds appropriate independent reading materials without assistance.

ENGAGEMENT/ATTITUDES

Developing	Progressing	Proficient
<ul style="list-style-type: none"> Often complains about reading and fails to exhibit pleasure in independent reading. 	<ul style="list-style-type: none"> Generally exhibits a positive attitude toward independent reading. 	<ul style="list-style-type: none"> Frequently expresses pleasure regarding independent reading.
<ul style="list-style-type: none"> Does not exhibit confidence as a reader. 	<ul style="list-style-type: none"> Generally exhibits confidence as a reader. 	<ul style="list-style-type: none"> Consistently exhibits confidence as a reader and sees himself/herself as a reader.
<ul style="list-style-type: none"> Fails to set reading goals and reads a minimal amount during the allotted time. 	<ul style="list-style-type: none"> Sets realistic reading goals and usually achieves those goals during the allotted time. 	<ul style="list-style-type: none"> Sets high reading goals and reads the maximum amount during the allotted time.
<ul style="list-style-type: none"> Rarely finishes the material chosen for independent reading. 	<ul style="list-style-type: none"> Finishes most selections chosen for independent reading. 	<ul style="list-style-type: none"> Rarely abandons an independent reading selection before finishing it.

READING BEHAVIORS

Developing	Progressing	Proficient
<ul style="list-style-type: none"> Seldom has material available and ready to read. 	<ul style="list-style-type: none"> Generally has material available and ready to read. 	<ul style="list-style-type: none"> Consistently has material available and ready to read.
<ul style="list-style-type: none"> Is unable to sustain focus or read without interruption for the allotted time. 	<ul style="list-style-type: none"> Usually sustains focus and reads without interruption for the allotted time. 	<ul style="list-style-type: none"> Reads continuously without interruption for the allotted time.
<ul style="list-style-type: none"> Continuously seeks peer or teacher assistance in reading the material. 	<ul style="list-style-type: none"> Self-corrects before seeking peer or teacher assistance and requires a minimum amount of help from others in reading the material. 	<ul style="list-style-type: none"> Rarely requires peer or teacher assistance in reading the material.
<ul style="list-style-type: none"> Uses reading time inappropriately: disrupts others, daydreams, doodles, wanders about the room, doesn't read, etc. 	<ul style="list-style-type: none"> Generally uses reading time appropriately. 	<ul style="list-style-type: none"> Consistently uses reading time appropriately.

ACCOUNTABILITY

Developing	Progressing	Proficient
<ul style="list-style-type: none"> Rarely completes the reading log after independent reading. 	<ul style="list-style-type: none"> Generally completes the reading log after independent reading. 	<ul style="list-style-type: none"> Consistently and accurately completes the reading log after independent reading.
<ul style="list-style-type: none"> Rarely reflects upon and/or shares thoughts about what he or she has read. 	<ul style="list-style-type: none"> Generally reflects upon and shares thoughts about what he or she has read. 	<ul style="list-style-type: none"> Consistently reflects upon, shares thoughts about what he or she has read and makes connections to self and others.
<ul style="list-style-type: none"> Rarely recommends reading materials to others. 	<ul style="list-style-type: none"> Frequently recommends reading materials to others when asked. 	<ul style="list-style-type: none"> Voluntarily and continuously recommends reading materials to others.

¹³ Originally printed in *NetWords*, Spring, 2002, p. 7 (Middle Grades Reading Network); revised by the author, Oct., 2002.

Evidence Gathered from Various Reading Initiatives

Consider evidence from a few sample initiatives described below:

1. **Book Bags.** Description: Kindergartners and first graders took home two books each night from the LMC collection as “homework.” One book they were to “read” to another person and one book they were to hear read to them. Measure at the end of the school year: The number of children at or above grade level and ready for the next grade. Comparison measure: compare the success rate among K-1 teachers who used book bags vs. those who did not use book bags, other factors being approximately equal. Which groups did better? What would teachers and LMTs attribute success or failure to?
2. **Electronic reading programs.** Description: Individual teachers or the entire school uses point-driven computer packages designed to stimulate the amount read. While the evidence of effectiveness of such an approach is shaky, the LMT may be asked to participate. After analysis, the LMT decides to concentrate on two aspects: eliminating rewards to turn a competition into an “everybody who reads, wins.” And, the LMT concentrates her efforts toward individual students who are not doing well in the program. Every book, magazine, and web page becomes part of the program (points are awarded whether there is a computerized test or not) and totally individualized reading programs are designed for kids in trouble. Measure: The number of kids in trouble who can participate without the confining rules of a stupid machine. Second measure: the number of individuals at or beyond grade level in reading. Measure: The number of students who report they enjoy reading. Measure: The number of students who say that their point totals are based on what they “want to read.” Measure: The flexibility of the faculty of work with the LMT to design an individualized reading program beyond the accepted computer application in place. Measure: A comparison between classrooms on or off the reading program. Measure: A comparison of classrooms where **access** to a plethora of reading materials in the classroom and from the LMC is maximized and where to be a reader is “cool” vs. classrooms where an electronic computer program is in place.
3. **Sustained Silent Reading and Reading Aloud.** Discussion: Teachers and the LMT decide that recent weak critics of these time-tested and research-tested initiatives are incorrect and reinvent these programs together. Measure: The percentage of teachers who are reading aloud every day or regularly K-12. The percentage of students who have a SSR period every day and actually read during that time. Measure: Description of the efforts the LMT makes to see that these programs succeed followed up by brief questionnaires from teachers and students that the programs are working.
4. **Rotating Classroom Collections.** Discussion: The LMT and a cadre of student helpers create a system by which large numbers of books rotate out of the LMC and into the classroom every several weeks for recreational reading or topical reading linked to what the classroom is studying. This program is in addition to whatever permanent classroom collection a teacher might already have and insures a fresh supply of readable titles at every student’s elbow. Measure: The system is working. Measure: Both teachers and students agree that the amount read has increased because there is always something at hand to read.

Strategy 6: Make a Difference Through Collaborative Planning

Assessment of Collaborative Planning

Because the Lance studies¹⁴ made a very strong link between collaboration in the LMC to academic achievement, the measures taken documenting this activity are vital.

Collecting, reviewing, and reporting data at the organizational level, the teaching unit level and the learner level will help assess the impact collaboration is ready to make and is making in the school.

Level of Measure	Factor	Sources of Data
Collaboration at the Organization Level	The state of collaboration in the school and district.	<ul style="list-style-type: none"> <input type="checkbox"/> Evidence that district and school level administrators support collaborative planning by actions as well as word. <input type="checkbox"/> Evidence that time for collaborative planning is built into the school day. <input type="checkbox"/> Evidence that clerical and technical help are available to allow professionals to collaboratively plan.
Collaboration at the Learning Unit Level (class interaction and use)	The success that the class and the teacher experience during a unit of instruction both in the classroom and the LMC when collaborative planning is the norm.	<ul style="list-style-type: none"> <input type="checkbox"/> Evidence that collaborative logs are kept showing both planning and assessment of learning experiences. <input type="checkbox"/> An analysis of collaboration logs showing spread of collaboration through the grade levels, the various disciplines, and through the faculty. <input type="checkbox"/> An analysis of rubrics of classes as a whole for units of instruction done collaboratively. How they rate against instructional units done only in the classroom. <input type="checkbox"/> "Teacher" to pupil ratio for this learning unit as compared with normal classroom-based instruction. (Generally, these units would have both a teacher and an LMT thus reducing the ratio by half)
Collaboration at the Learner Level (as individuals)	Individual progress by each learner as collaborative planning enhances learning experiences.	<ul style="list-style-type: none"> <input type="checkbox"/> Rubric score that content knowledge, technology, and information literacy was enhanced through collaboration. <input type="checkbox"/> Evidence that an individual learner was more engaged, interested, and motivated than "normal" as the collaboratively-taught unit progressed.

¹⁴ Lance, Keith Curry and David Loertscher. *Powering Achievement*. 2nd ed. San Jose, CA: Hi Willow Research & Publishing, 2003.

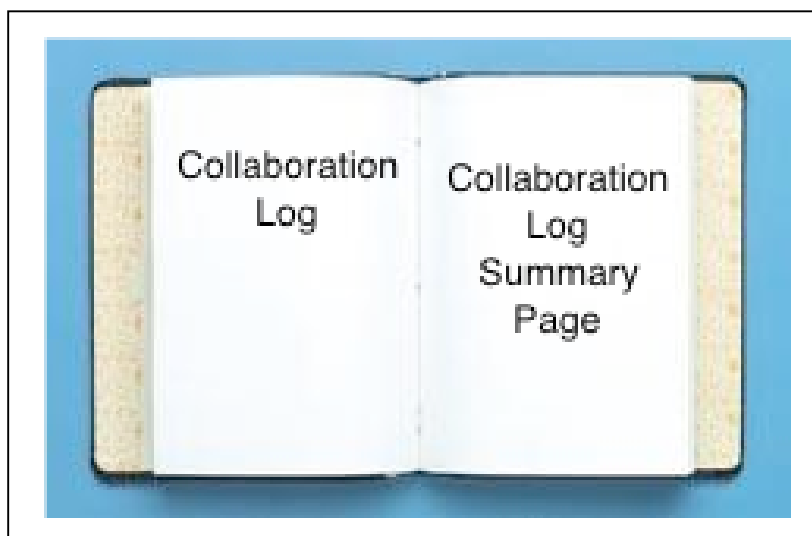
How Collaborative Activities Can Be Recorded and Assessed Learning Unit Level

Idea: Create a Collaboration Log.

Who: The library media and technology specialists and classroom teacher working as a team.

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

- **File collaborative unit planning sheets** in a three-ring notebook in some sensible fashion. Only fully developed collaborative activities should be filed — not every interaction between the LMT and the teachers. An electronic record might be preferable.
- As the **first page** in the notebook, create a **collaboration log summary page** listing the collaborative activities. See the example on the following page.
- **Principal's Activity:** Using the summary sheet, assess the collaboration log notebook as a whole looking for patterns.
 - Who is being served?
 - Which grade levels?
 - Which departments?
 - Which curricular subjects?
 - Who is not being served?



Sample Collaboration Log Summary Page

During the school year, the teachers and the LMT agree that the following units were successful collaborations, i.e., the learning was enhanced because the several partners exploited the resources and technology of the LMC and/or computer lab.

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

Ideas:

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

Note to LMTs: 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? How would I assess the effectiveness of increased student learning?