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TITLE

**WINDOWS INTO INSTRUCTIONAL
COLLABORATION:
INFORMATION POWER IN THE REAL WORLD**

Shirley Weisman

Hi Willow Research & Publishing

2002

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The library media teachers whose interviews and stories are gathered here took time from their already full schedules to welcome me into their library media centers, allow me to tape record extensive interviews, and write stories about collaborations. Their wisdom and dedication inspired me and made writing this book a pleasure.

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INTRODUCTION

Purpose

Windows into Instructional Collaboration is a result of the California School Library Association (CSLA) Curriculum Committee's response to *Information Power; Building Partnerships for Learning*. As the committee discussed ways to facilitate the implementation of the information literacy standards delineated in *Information Power* and tie them to curriculum standards, we decided upon the creation of a publication that uses the power of story to:

- demonstrate how library media teachers and classroom teachers, working together, improve student achievement;
- demonstrate that teaching is a risk-taking endeavor that involves learning and growth on the part of library media teachers, classroom teachers, and students;
- demonstrate that knowledgeable dedicated library media and classroom teachers make good things happen no matter what the physical setting or socioeconomic circumstances may be.

Audience

The intended audience for this book is the total education community. Our hope is that library media teachers will use this book as a tool with classroom teachers and with administrators. It is intended to create not only a vision, but also an awareness of a multiplicity of paths that lead to creating the vision. It tells of the failures that lead to successes in the hope that readers will be encouraged to take the risks involved in trying something new.

Need

Library media teachers and library media programs must be seen as integral to student achievement. The information literacy skills that are basic to what library media teachers know and do are the same skills needed by people of all ages in school, on the job, and in their personal lives. The need to publicize and promote the role of library media teachers as educational leaders is made evident in a 1995 study of 77 Missouri high school principals¹ which revealed their general view of the school library media teacher as one who purchases, processes, and circulates books and provides occasional reference services. In this study, many principals did not see library media teachers as valuable participants in the instructional process. Numerous studies since then, however, have shown that library media teacher involvement with the instructional process is, in fact, of enormous importance to student achievement.^{2 3 4} How do we change this limited perception of some administrators?

¹ Dorrell, Larry D. and Lawson, Lonnie. "What Are Principals' Perceptions of the School Library Media Specialist?" NAASP Bulletin (Oct., 1995): 72-80.

² Lance, Keith Curry, Christine Hamilton-Pennell, and Marcia J. Rodney. *Information Empowered: The School Librarian as an Agent of Academic Achievement in Alaska Schools*. Juneau: Alaska State Library, 1999.

³ Lance, Keith Curry, Marcia J. Rodney, and Christine Hamilton-Pennell. *Measuring Up to Standards: The Impact of School Library Programs & Information Literacy in Pennsylvania Schools*. Camp Hill, PA: Pennsylvania Citizens for Better Libraries, forthcoming.

⁴ Lance, Keith Curry, Marcia J. Rodney, and Christine Hamilton-Pennell. *How School Librarians Help Kids Achieve Standards*. Castle Rock, CO: Hi Willow Research and Publishing, 2000.

Interviewees

When I contemplated writing this book, I was concerned that all the interviews and stories would be so similar to each other that the book would be uninteresting. Quite the reverse is true. Each person brings his or her unique personality to the job. Each setting is unique. For instance:

- A library media teacher and classroom teachers in a suburban high school notice that student research questions are sometimes vague and group work in the library media center is sometimes inefficient. They notice that, as the use of electronic resources increases, plagiarism increases. The library media teacher takes a leadership role in implementing action research on the integration of information literacy into the curriculum.
- A library media teacher in an urban middle school uses books and her childhood experiences to motivate sixth-grade students to create alphabet books. After sharing several alphabet books, she produces a rubber ball and explains to students that, in her neighborhood, kids did a ball-bouncing game in which each player had to compose a refrain for each letter of the alphabet and recite it while bouncing the ball rhythmically. She demonstrates the game, and the students are hooked.
- A library media teacher in a K-eight parochial school serving primarily well-to-do students implements a cross-curricular study of fables integrating science and literature. Her enthusiasm is contagious. When she reads aloud a fable, the classroom teacher and third graders give their complete attention. When the signal is given to select a fable to analyze, the third graders immediately go to work.

The library media teachers were selected for this book through the recommendations of their peers. Several were interviewed who were, for a variety of reasons, unable to submit their stories and were therefore not included. Unfortunately, the balance of urban and suburban schools which I had planned to include was somewhat affected by the non-respondents. However, my visits to the broad range of schools confirm what I had also observed in my professional career: good things are happening in schools across the socioeconomic spectrum.

The library media teachers profiled in this book are highly motivated people and are all non-stop learners. They are not doing perfect jobs in perfect settings. Like most of us, they try to learn from their mistakes and from the undertakings that don't work or don't work as well as they had hoped. They also learn by reading professional books and journals, by attending conferences, and by sharing information informally with colleagues. They are all willing to take risks, to try out new ideas. They are excited about their successes and learn from their failures.

When I visited these library media teachers, their dedication, their sense of mission, and the depth of their knowledge inspired me. I am profoundly grateful for the time they spent with me and for their stories.

Shirley Weisman, Author

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ABOUT THIS BOOK

Chapter one features Al Sandrini, winner of the 1999 California School Library Association Administrative Leadership Award and retired superintendent of Norris School District. The story of his leadership and support from the top will motivate and confirm both administrators and library media teachers in their collaborative efforts to provide strong library media programs that are integral to curriculum and instruction in their schools.

Chapters two through fourteen, the core of the book, focus on library media teachers. Each chapter is composed of three segments.

Part one is an interview in which a library media teacher describes the setting in which he or she works by responding to some basic questions:

- Who are the students?
- Who are the staff?
- How do people work together?
- In what kind of facility are they working?
- With what kinds of resources are they working?
- What are some of the library media center policies?

Part two is a story told by the library media teacher of a collaboration with other school staff in which the library media teacher plays a leadership role.

Part three is an instructional design that analyzes the collaborative teaching and learning process described in the library media teacher's story. Each instructional design emphasizes the planning team's focus on the following areas:

- Identifying desired results
- Determining acceptable evidence of learning
- Planning teaching and learning experiences

(Instructional designs were not created for chapters eleven and twelve because they deal with whole-school collaborations rather than specific units of study.)

Chapter fifteen contains my reflections on the interviews and stories. It explores what library media teachers are accomplishing and why what they do matters to students, teachers, and their communities.

1.1

LIBRARY MEDIA PROGRAM LEADERSHIP FROM THE TOP: SUPERINTENDENT AL SANDRINI

"Al Sandrini was a great principal and a wonderful superintendent. He was wonderful because he had a vision. He could see beyond what was happening today. He had the ability to listen to me and understand my goals. He embraced a vision of a full-service library media center (LMC). It was exciting to work with him." Beth Heisey, Library Media Teacher

Although Norris School District has the lowest revenue limit in Kern County, its library media centers (LMCs) are among the best. This hasn't always been the case. Sixteen years ago, when Al Sandrini became superintendent of the kindergarten through eighth-grade district, there was not one certificated library media teacher. The LMC at the middle school, the only LMC in the district, was staffed by a part-time paraprofessional. Much of its book collection was obsolete. Because, historically, California has provided less support for school LMCs than any other state in the nation, the situation in Norris was fairly typical of those found in many school districts throughout the state.

As a result of Al Sandrini's leadership, LMC programs and resources in Norris School District have changed radically. A full-time certificated library media teacher is assigned to Norris Middle School and an elementary certificated library media teacher is budgeted for the 2000-2001 school year. Four full-time paraprofessionals staff the existing three schools.

What motivated you to promote and improve school LMCs?

As a child, I attended schools that didn't have a library so I had no experiences, no foundation on which to build. During my career, I discovered public libraries. They provided me education, comfort and relaxation. As I evolved in my career as an administrator, it seemed to me that I should make those experiences available to kids. I began the journey of trying to understand the components of a successful LMC program. I was most fortunate in hiring an excellent librarian, Beth Heisey, who has taught me a lot.

What does it take to create a successful LMC program?

There are four main characteristics librarians need in order to create an effective program. First, librarians must have the drive to succeed. Second, they must be willing to commit the amount of time it takes to develop an effective program. Third, they must have strong interpersonal skills and the ability to motivate others, because not all people are automatically drawn to LMC programs; people have to be educated

to their value. Fourth, librarians have to be available to collaborate with classroom teachers within the classroom teachers' time frames.

How do you see the role of administrators in relation to school LMCs?

The school superintendent has to set the vision for the district. That vision must be focused. The more we as administrators narrow the scope of what we want our teachers and other employees to pursue, the easier it is for them to hear the message and not be confused. Involving and empowering others to participate in the implementation of the vision is critical. In a large district, regional supervisors and curriculum specialists need to be involved in implementing the vision. In a smaller district, the school superintendent works more directly with principals. Either way, there must be follow-up to insure there is change at each school. Someone from the district office must visit school sites to verify that the vision is being implemented. A sense of accountability has to be communicated. This is the conceptual model.

The reality is that the superintendents can be most effective, no matter what the size of their districts, in determining the budgets and allocating money to support their visions. However, most districts suffer from having limited fiscal resources. We must continuously remind our staff and community there is a direct connection between how well students learn and LMCs with a credentialed librarian. We must maintain the focus on student learning and allocate the resources that best meet our mission.

Even though our school district has the lowest revenue limit in Kern County and, therefore, our financial resources per pupil are lower than anyone else's, our LMC program is among the best.⁵ People ask how we could find the resources to accomplish this. I respond that it is strictly a matter of setting priorities. Public schools can't do everything they're asked to do. What we have done in our district is make the LMCs central hubs of student learning; they are central to meeting curricular standards.

The superintendent sets the global vision, but it is the principal that makes things happen at a school. All of our principals usually put part of their school's budget into supporting the LMC. Principals have to accept the vision and then support it by supporting librarians. They have to encourage classroom teachers to collaborate with librarians in the teaching of research skills.

How important, in your opinion, is collaboration between classroom teachers and librarians?

Collaboration between classroom teachers and librarians is essential to successful LMC programs. There is solid research showing a direct correlation between student learning and how much money is spent on LMC programs. Krashen's research showed this in 1993, as did Lance's research in 1999. Part of the expenditures on LMC programs must be for librarians with the interpersonal skills to motivate others to work with them. Classroom teachers and librarians working together to plan, teach, and evaluate units is what creates higher achieving students. Collaboration is critical to the success of LMC programs. There are a lot of good things that will happen just by putting librarians in LMCs, but you don't want them to stay in the LMC. You want them in classrooms working with classroom teachers. You want them to go beyond just the reading of stories.

⁵ In the 1970s the state became the major provider of funding for schools. The state averaged each district's expenditures for the past three years to determine the revenue limit/ADA. Because Norris was a small rural district with a fiscally conservative board, it didn't spend much money on its education programs. Therefore, Norris started out with and continues to have the lowest per pupil funding in Kern County.

What can administrators do to facilitate collaboration?

As a school district, we adopted Eisenberg's Big Six Research Skills as our model. We wanted every one of our kids to be taught those skills. This created a natural entrée for the librarian to work with classroom teachers. Many classroom teachers weren't acquainted with the Big Six. The district said, "This is what we're going to do, and here is your resource, the librarian, with whom to do it."

How can library media teachers gain the support of principals?

Selling the vision to administrators is difficult because each of them has their own priorities and favorite types of expenditures. When I talk with them, I remind them that during this time of hypersensitivity to student achievement, especially as related to state accountability issues, a preponderance of research says the best way to improve test scores is to spend more money on our LMC programs and encourage collaboration between credentialed library media teachers and classroom teachers. LMC programs, especially those that include collaboration, are more effective in increasing student achievement than all other factors known to have a major effect, including level of parental education and income.

How can library media teachers work with their administrators to obtain adequate staffing for school LMCs?

It's going to take increased revenues from the state to provide adequate staffing for school LMCs. Strategies for obtaining more money are complex because the state never has enough to do everything it wants to do, and it's so sensitive to the political issues of the times. The state funding process is so politicized that only the more critical issues in the state and the squeakiest wheels seem to be addressed. For example, in recent years a tremendous amount of state funding is going towards addressing the need to reduce class size. That is an important issue and one that I support. However, we've spent a lot of money from the state on matters that may not have the same positive impact as class size reduction or as LMC programs. I think the solution lies in a lobbying effort by organizations such as the California School Library Association (CSLA). I believe, in addition to lobbying, there has to be a campaign to educate members of the legislature as to how one credentialed librarian per 953 students, the national average, will have long range benefits to children and to the state of California. We have to educate not only the legislators, but also our own teachers and administrators as to how and why LMC programs have a positive impact on kids.

Notes:

For additional information, read Beth Heisey's interview.
Al Sandrini is now semi retired and working as a consultant.

2.1

MAKING STUDENTS LOOK GOOD

Beth Heisey
Norris Middle School

"I find that when we work together, we praise the students more often, and they achieve more. We find that, in doing collaborative lessons, we become a community of learners. We are all seen as learning together as opposed to the traditional image in which the teachers are seen as the experts who impart all the important information. We connect in a closer way with students." Beth Heisey

Who Are the Students?

Norris Middle School, located in northwest Bakersfield, has 559 sixth, seventh and eighth-grade students. Although Bakersfield, on the whole, is a multiethnic city, affluent Norris School District, within Bakersfield's boundaries, is not. The student body at Norris Middle School is approximately 72% Anglo/European, 20% multiple ethnicities or unidentified, 6% Hispanic, 2% Asian, and less than 1% Filipino. One bilingual (English/Spanish) aide provides services for the six English language learners (ELL) in the four-school district. The students at the middle school score high on standardized tests, the highest in the county.

There are few government-subsidized programs. Only about thirty-one students receive federally funded free lunches and only twenty-one students receive lunches at a reduced cost. The school receives School Improvement Program (SIP) funding from the state and Title VI funding from the federal government. The Title VI funds, which Beth administers, are used for core literature books and books for classroom libraries.

A resource teacher works with special needs students. Many students use her services. Because the school is in a rural area, all but about eight students are bused there. However, the neighborhood is growing and is gradually approaching the school site.

Who Are the Staff?

Al Sandrini and Beth Heisey began working together in 1970, when she was a sixth-grade teacher, and he was an elementary school principal. Beth says, "He was a great principal and a wonderful superintendent. He was wonderful because he had a vision. He could see beyond what was happening today. He had the ability to listen to me and understand my goals. He embraced a vision of a full-service library media center (LMC). It was exciting to work with him."

Beth is now the district librarian as well as the library media teacher at Norris Middle School. She supervises the full-time library aides at the three elementary schools and selects the LMC materials for them as well as for her own school. She frequently speaks to the Parent/Teacher Clubs at the various schools. However, she devotes most of her time and energies to her job as library media teacher. Often, there are as many as ten to twelve classes a day in the Norris Middle School LMC, so she finds little time to visit the elementary schools.

Lesly Tait is the full-time library aide at the middle school. She is adept with technology, at giving students individualized assistance, and at assisting with supervision.

Nina Schroepfer, a full-time library technician, works at Norris Middle School, but her main duties are processing the LMC materials and keeping the records for all of the four LMCs in the district. She helps with supervision in the Norris LMC before school and at lunchtime, especially busy times.

"It takes all three of us, Mrs. Tait, Mrs. Schroepfer, and I, to do the kind of job we're doing," says Beth.

How Do People Work Together?

Parent involvement is a key factor in the academic success of the students and in the success of the LMC programs in the Norris School District. The Parent Teacher Clubs at all the schools are extremely active. They do book fairs and pay for author visits. Many parents volunteer in the school LMCs as well as in other capacities.

Beth welcomes the many school board and other meetings in the LMC's presentation center because they give the community an opportunity to see the LMC's program. She says, "I tell teachers they're missing a great opportunity to promote what they do if they don't have their students' work on display here or ask to be on the board's agenda."

Beth feels that having a homeroom advisory group has made her a more integral member of the faculty. Her homeroom group meets every day in the LMC. In the spring, she and the other advisors of eighth-grade homeroom groups take their approximately 180 students on an overnight trip to Catalina.

Staff development is an important part of Beth's job. Every fall, at a training for the new teachers in the district, she discusses district expectations regarding the use of Core literature. She explains how to work with library personnel and how to use the LMC effectively. Beth and the library aides want to make sure new teachers know what the library staff can do to help them and such basics as where the professional collection and the coffeepot are located.

Beth provides trainings for all the classroom teachers at her school twice a year. The most recent training, "How to Get the Most Out of Your Librarian," was attended by twenty-four of the thirty classroom teachers at her school even though attendance was not mandatory.

Beth encourages the teachers to use the professional collection and has organized an ongoing paperback book exchange for them. Teachers can gather and work at a table that is near both the professional collection and the kitchen.

For nine years, Beth led a teachers' breakfast group that met once a month. At the meetings, she and the classroom teachers discussed professional literature. Beth considered it a truly worthwhile project.

Her goal is to involve more of the classroom teachers in collaborations. She feels that the teachers are at different stages in regard to the level at which they are ready to work with her. At the present time, Linda Stanley, an eighth-grade science teacher who formerly had worked as her aide, collaborates to the greatest extent. Beth and an eighth-grade English teacher have collaborated on units, and all three of the sixth-grade social studies teachers worked closely with her on a History Day project. She is currently working with seventh-grade science and history teachers on a cross-curricular project.

Finding the time to plan collaborations is difficult. Because Beth usually needs to supervise the LMC before school and at lunchtime, these times aren't available for conversing with classroom teachers. If she is not working with a class, she is able to meet with teachers during their prep periods.

In What Kind of Facility Are They Working?

While Al Sandrini was superintendent of schools, a 1,000 square foot LMC was constructed. With his support, its size was later increased to 2,000 square feet. Again with his support, in 1988 Beth Heisey worked with an architect to design the present 4,000 square-foot facility, completed in 1999. She was able to give the architect input as to the kinds of activities she wanted to take place in the LMC. As she had hoped, it accommodates two class-size groups plus additional students who come in to work independently. One of the two class areas contains twenty computer stations.

The rooms adjacent to the LMC have large windows that allow for easy supervision. Nina Schroepfer, the library tech, works in one of them. In another, near the professional collection and the parent collection, is the small kitchen.

Reflecting the staff's emphasis on children presenting their work, yet another adjacent room is a presentation center. A laptop computer is set up with a projector, and a screen can be drawn down from the ceiling. In addition to being used for student presentations, this room is used for school board meetings.

Beth's reptile collection and the aquarium are major attractions. "Lots of kids who probably wouldn't otherwise come into the library of their own volition come in to see our pets," says Beth. "The pets give us an opening to initiate conversations." Two red-eared slider turtles have been library pets for sixteen years. A boa constrictor has been in the LMC for almost that long and will be twenty-eight years old this summer.

With What Kinds of Resources Are They Working?

At a craft center in the main room of the LMC there are rulers, calculators, markers, scissors, a paper cutter, glue, and colored paper. A machine that makes posters is used mainly by teachers but can be used by students as well. Textbooks are shelved here. The LMC is open three nights a week until 6:00 p.m. for the school's homework assistance program, so a lot of students come in needing textbooks. A photocopying machine and book binding machines are available for student use. "Our objective," says Beth, "is to provide students with what they need in order to look good when they make their presentations. We try not to have anything in here that the students aren't allowed to use."

Technology has been a district emphasis. Beth has made every effort to become a leader in the technology arena and to insure that LMCs are included in technology planning and implementation. She is a member of both the district and the school's technology committees. She looks at LMCs as everyone's classrooms, and, therefore, places where everyone has access to technology. The Norris Middle School LMC has twenty-seven Macintosh computers, all of which are networked, have Internet access, and are connected to printers. The district has a homepage, as does the school, and the LMC Web page is linked to them. The computers in the LMC are not yet linked to those in the classrooms.

Prior to the last three years infusion of special state funding for school LMC materials, the district allocated \$15 per pupil for this purpose. Now, the district is not allocating any money for LMC materials. Beth says, "When the district stopped providing funding, it was disheartening to me. Other people and I had worked so hard to obtain

district funding. Many years ago, during a prior period when no money was being allocated to LMCs, I asked the board to allocate \$1 per student. The board was stunned that we didn't have any money for books. It took a long time to get up to \$15. All the principals are supportive, and the LMCs do receive quite a bit of the state school improvement money as well as the special state funding for LMCs. The special state money has been great, but the district funding is still needed."

The school contracts with the County Office of Education for videos. These are delivered weekly, so Beth has not built a collection at the school except for the one for parents.

Beth has spent almost all of the special state funding for school LMCs on books. There are about 11,000 books in the collection, nearly twenty books per student. The LMC staff has mapped and weeded the collection, so nearly all of the books are current. Beth feels the reference collection is especially strong.

The LMC subscribes to an online periodical database and about twenty periodicals, most of which are for recreational reading. The magazines are archived for five years.

The parent collection contains lots of videos on such topics as childcare and adolescent problems. The parent/teacher clubs throughout the district have worked closely together to fund materials for parent resource centers. Beth feels that the parent collection is being used now and that it will be used even more within a year's time as parent awareness and comfort levels increase.

Near the professional and parent collections are a TV and VCR that can be used for previewing videos.

What are Some of the LMC Policies?

Beth and the science teachers give students an Internet users' course at the beginning of every school year. Students must carry proof they have passed the course, and parents and students must sign an acceptable use policy that is kept on file in the LMC. Before using a computer, a student must submit a half-page computer use plan and proof of having passed the Internet course to a member of the LMC staff.

Everything accessed via the Internet goes through the Kern County Superintendent's office, which applies minimal filtering. Beth says, "I tell the students the best filter they have is in their heads, and we depend on them to use it. So far, the students have been very reliable." The students put a cup labeled "HELP" on top of their computers if they accidentally access an inappropriate site, and a member of the LMC staff helps them exit the site. The "HELP" cup is also a very useful quiet tool to let the LMC staff know that assistance is needed at that computer.

All books circulate. Regular books may be kept for two weeks. Reference books and books placed on reserve by teachers may be checked out overnight. Magazines are also circulated on an overnight basis. Students pay the original purchase price for lost books. Despite the lack of a book security system, few books are taken without being properly checked out.

2.2

BETH'S STORY

When Linda Stanley, an eighth-grade science teacher, first returned to work after being a stay-at-home mom, she worked as a classroom aide and then with me as a library clerk. Because she had been a classroom teacher, she understood curriculum. She took a number of library science courses. We were a truly dynamic duo! Now that she has returned to the classroom, the lessons that she and I design, teach, and evaluate together always rank high on David Loertscher's taxonomy of involvement in instruction.⁶

Mrs. Stanley and I have researched, planned, taught, and evaluated a WebQuest science activity on energy every year for eight years. Each year we refine the unit and change it a little as we debrief and decide what worked well and what could be improved. This year, the activity was particularly timely. California was just beginning to experience an energy crisis as we were starting the unit. There was information daily on television news broadcasts and in the newspapers.

Mrs. Stanley and I start our collaborations by planning together informally before school, after school, and by phone in the evenings. Then, we do our more formal planning at school. Usually, Mrs. Stanley comes up with the initial ideas, tells me her goals, and asks to collaborate with me. I tell her what resources are available and what information literacy skills I think the students will need. We involve Lesly Tait, the library aide, in the planning whenever possible. We wish we could involve the homework club teachers in the planning process as well, because the students come into the LMC seeking help after school when we aren't around. That is a link I think needs strengthening.

For the energy unit, my staff and I planned and implemented all the technology aspects of the project and the information literacy skills. We provided the space in which to work and the necessary equipment. Mrs. Stanley devised the rubrics and the actual WebQuest project. We tied the project directly to science standards and to the information literacy standards found in *Information Power, Building Partnerships for Learning*.⁷

The classes were scheduled into the library for a three-week period. Mrs. Stanley and I team-taught the introduction to the unit. While students worked at the computers to research the assigned energy problem, Mrs. Stanley, the library aide, and I answered questions and helped with the technology. Then students put their findings into a computer program called *Inspiration*. This program allows the user to create an outline of information in a traditional linear or in a web format. Students selected the outline format that they felt most comfortable using.

When their outlines were completed, I showed the students how to transfer them from *Inspiration* into Power Point. The students could then add pictures, sounds, and transitions to the slides. Most of my instruction on Power Point was done individually

⁶ Loertscher, David V. *Taxonomies of the School Library Media Program*. 2nd ed. Hi Willow Research & Publishing, 2000.

⁷ American Association of School Librarians and Association for Educational Communications and Technology. *Information Power, Building Partnerships for Learning*. American Library Association, 1998.

at the point of need. Students helped one another with Power Point, teaching others things about the program that they had learned on their own.

Next, the students met in their groups to view each slide show. They decided which one would represent their group in the final presentation. The library staff and the classroom teacher helped the groups enhance their shows.

The final presentations were given in the library using a laptop computer and the projection system. Mrs. Stanley and I graded the projects jointly. I consider it a real privilege to be involved in evaluating student projects. Being allowed to participate in the evaluation process indicates a high level of trust on the part of the classroom teacher.

One of the things I have learned from Mrs. Stanley is the importance of establishing clear rubrics. As I've evaluated her students' work, I've realized her students rarely experience failure. The rubrics let them know exactly what is expected of them. There is sufficient leeway so that the gifted students can work at a higher level, and the less able can still succeed.

After the completion of the energy unit, a student joined Mrs. Stanley and me in presenting the student projects to the district board of trustees at their February board meeting in our LMC. The board members loved having a student there to demonstrate the project and to answer questions. When we had technical difficulties, the student saved the day by telling how seamless the process of using the two computer programs was and how much he enjoyed the energy unit.

The unit was popular with the students. They liked doing the web quest, and they especially liked using *Inspiration*. The students were focused and willing to spend much extra time in the school's homework assistance program working on their Power Point presentations, because they wanted to do an outstanding job in front of their classmates and teachers.

Mrs. Stanley, Mrs. Tait, and I enjoyed teaching the unit, because teaching is so much easier and more successful when three adults work together to assist the students. Mrs. Stanley has told me, "It's very natural that, with any project I want to undertake, my starting place is the library. The science collection fits in with our units of study, which is wonderful. Our collaborative units are so much richer than the units I do alone, because the students have two teachers and an aide they can come to for help. Even though the units are bigger when we collaborate, they are less tiring to teach than when I do them on my own. You come up with so many ideas. You answer questions in a way that is different and often better than the way I would have answered them. We get better and better."

We need to debrief at the end of units on a more regular basis. When we do debrief, we always find things we want to change the next time. We never do anything the same way twice. For instance, we changed the unit because we changed textbooks. We have changed the lesson from a pen-and-paper research assignment to a research assignment with a more visual product. The unit has evolved over the years. We always try to improve, which is good even though making changes demands more energy from us.

It is always a pleasure to work with Mrs. Stanley on collaborative lessons. I find that when we work together, we praise the students more often, and they achieve more. This is true for all her students even though they represent all spectrums of the student body, from special needs students to the gifted. We find that, in doing collaborative lessons, we become a community of learners. The students see that Mrs. Stanley and I are active learners. We are all seen as learning together as opposed to the traditional image in which the teachers are seen as the experts who impart all the

important information. We connect in a closer way with the students. The learning carries over to recess, lunchtime, and after school. I've noticed that because of what Mrs. Stanley and I have done together and the groundwork that we have laid, when Mrs. Stanley's students come into the LMC with their English teacher, the students' research for their English classes is better.

Because the teachers have a great deal of respect for Mrs. Stanley, her advocacy for collaboration and for the LMC has helped build the LMC program.

2.3

PLANNING FOR RESULTS

Beth Heisey

The first step in planning instruction is to determine what is to be achieved, that is, what we want students to know and be able to do. This involves determining which educational standards will need to be met. Second, decisions must be made as to what is acceptable evidence of student learning. The criteria need to be shared with students so they know exactly what is expected of them. The third step, which can only realistically be accomplished after the prior decisions have been made, is to decide upon the instructional strategies to be used and the activities in which students will engage. The plan for Beth's lesson follows; observations regarding how standards are met are included.

Identify Desired Results

Information Literacy Standards

Standard 1: ... accesses information efficiently and effectively.

Beth identified the available resources and shared this information with the classroom teacher prior to class visits and with the students when they arrived in the LMC. Beth, the classroom teacher, and the library aide answered questions and helped with the technology.

Standard 2: ...evaluates information critically and competently.

Evaluation of information needed to take place at various points in the process. When students were gathering information, they needed to evaluate it for accuracy and for relevance to their project. Later, when they met in their groups to view each Power Point presentation, they had to evaluate the content and the creativity with which information was presented as well as which energy source was best. Then they decided which Power Point show would best represent their group in the final presentation.

Standard 3...uses information accurately and creatively.

Beth taught students how to put their findings into a computer program called *Inspiration*; this program allows the user to create an outline of information in a traditional linear or in a web format. In order to create their outline, students needed to first select and then synthesize the information pertinent to the problem to be solved.

When their outlines were completed, Beth showed the students how to transfer them from *Inspiration* into Power Point. The students could then add pictures, sounds, and transitions to the slides.

Standard 6: ...strives for excellence in information seeking and knowledge generation.

The students were focused and willing to spend much extra time in the school's homework assistance program working on their Power Point presentations because they wanted to do an outstanding job in front of their classmates and teachers.

Standard 7: ...recognizes the importance of information to a democratic society.

California was just beginning to experience an energy crisis as Beth, the classroom teacher, and the students started the unit. There was information daily on television news broadcasts and in the newspapers.

Standard: 9...participates effectively in groups to pursue and generate information.

Students met in their groups to view and evaluate each Power Point presentation in order to decide which one would represent their group in the final presentation.

Science Content Standards for California Public Schools

The following standards are not reflected in Beth's story, but were submitted separately by her. They were met in the classroom and reinforced by the research done in the LMC.

Physical Science

Standard 2.e: Students know that when the forces on an object are unbalanced, the object will change its velocity.

Standard 5.c: Students know chemical reactions usually liberate heat or absorb heat.

Standard 9: Scientific progress is made by asking meaningful questions and conducting careful investigations.

Standard 9.b: Evaluate the accuracy ...of data.

Standard 9.e: Construct appropriate graphs from data and develop quantitative statements about the relationships between variables.

Determine Acceptable Evidence of Learning

Students will give Power Point presentations that reflect careful meaningful research. The presentations will demonstrate an understanding of the physical forces and chemical reactions involved in creating energy. Additionally, they will explain how the differences in obtaining, transforming and distributing energy from various sources impact the environment.

Plan Teaching and Learning Experiences

Students will need to know...

- Information about various sources of energy
- Internet searching techniques
- How to use the computer program *Inspiration*.
- How to create a Power Point presentation.

Students will need to be able to...

- Locate information
- Collaborate with others

- Synthesize research
- Evaluate the advantages and disadvantages of various sources of energy
- Create an effective oral and visual presentation

Responsibilities for teaching and learning experiences

1. Co-design the WebQuest project and be the main contributor of the overarching problems to be solved, the types of energy to be researched, and the evaluation rubric. (classroom teacher)
2. Co-design the WebQuest project and be the main contributor of the research strategies and helpful websites. (library media teacher)
3. Teach the information literacy skills. (library media teacher and library aide)
4. Review Internet searching techniques. (library media teacher and library aide)
5. Provide instruction on Power Point and the computer program, *Inspiration*. (library media teacher).
6. Provide time for students to search for, evaluate, synthesize, and present information. (classroom teacher and library media teacher)
7. Evaluate the projects. (classroom teacher and library media teacher)

**PERFORMANCE TASK ASSESSMENT LIST
MULTIMEDIA PRESENTATION**

ELEMENT	Possible Points	Earned Assessment
 Content - Research and Writing		
1. Multimedia product shows evidence of effective research and understanding of concepts relevant to course curricula.	25	
2. Multimedia product reflects accurate, specific, purposeful information that is extended and expanded to fully explain the topic.	25	
3. Supporting details are used to help explain the concepts.	20	
4. The vocabulary is appropriate to both the content and the audience.	20	
5. Visuals including pictures, diagrams, photographs, videos, flow charts, and other media are used appropriately to support/enhance the concepts.	10	
 Content - Technical Design and Organization		
1. Choice of multimedia format is logical and effectively contributes to understanding of the concepts.	10	
2. There is a clear beginning, an organized body, and a clear closure	20	
3. Format is well designed (use of color, graphics, sound, moving images, titles, labels).	20	
4. Images and graphics are clear and sound is audible.	20	
5. Multimedia product is technically correct (operates with minimal flaws during presentation.)	20	
6. Length of the multimedia product conforms to allotted timeframe.	10	
 Presentation of Multimedia Production		
1. The purpose of the multimedia product is clearly evident to the audience.	20	
2. Speaker demonstrates effective body language: eye contact, posture, movement.	20	
3. Speaker responds well to questions during and/or following the multimedia presentation.	20	
 Total	 250	

3.1

PROACTIVE LIBRARY MEDIA TEACHERS LOOK FOR AREAS OF NEED

Melissa Wells
Clark Middle School

"Our roles were clearly defined. The teachers brought their content area expectations, and I contributed my knowledge of resources and strategies that would meet the needs of all seventh graders, guaranteeing their success. This enabled me to define for the teachers my role as a library media teacher."

Melissa Wells

Who Are the Students?

Clark Intermediate School, located in Clovis, serves approximately 1,200 seventh and eighth-grade students. The school reflects the socioeconomic changes in the community. No longer in a strictly rural agricultural setting, Clark Intermediate draws its diverse student body from Clovis, including the downtown area and new subdivisions, and from surrounding rural areas. 61% of the students are Anglo/European, 22% Hispanic, 13% Asian, 3% African American, and 1% other ethnicities. Most are from middle-class families.

Only a small percentage of the students are English Language Learners (ELL). Specially Designed Academic Instruction in English (SDAIE) teachers and an ELL teacher as well as teacher's aides who speak the primary language of the students meet their needs.

The GATE program serves the gifted students. Special education students receive help daily during the lunch hour in academic labs. Students who are at risk of failing are provided help in after-school math and reading labs. In addition, a mentoring program links at-risk students with teachers on a one-on-one basis.

The Learning with Laptops program is offered to the Academic Block students. All participating students have either purchased their own laptops or have loaner laptops circulated from the library media center (LMC). Computers are integrated into everyday classroom activities that are geared toward helping students relate what they are learning to real-world work situations. (For further information about this program see <http://www.clovisusd.k12.ca.us>.)

Who Are the Staff?

Melissa Wells is the library media teacher. She is also the school's webmaster, so she is easily able to add links to the school's website to guarantee immediate student access to curriculum-related websites.

Melissa actively seeks out collaborative relationships with classroom teachers. At the beginning of each school year, she distributes a LMC planning/sign-up sheet and meets with new classroom teachers to define her role. She meets with classroom

teachers throughout the school year whenever she can: before school, during the morning break, after school, or during preparation periods.

Her professional commitments extend well beyond the LMC. She serves on the school writing committee, the district committee planning future LMC facilities, and the Fresno Pacific University School Library Media Steering Committee.

Jill Pavich, a full-time library technician, works with Melissa in the LMC. Jill runs the circulation desk, processes and circulates textbooks and LMC materials, prepares the paperwork for orders of LMC resources, oversees student library assistants, maintains inventories of LMC resources and all the audiovisual equipment on campus, and provides individual assistance to students.

Will Dunn, a part-time technician, is based in the LMC from 7:30-12:00 daily and is responsible for computer software throughout the school. Dean Bonesteel from Compuserve, another part-time technician based in the LMC, is there from 10:00-12:00 daily and is responsible for the school's computer hardware.

Tim Kent, a teacher on special assignment, trains teachers in integrating technology into the various subject matter areas. Focus is on training each teacher at his or her ability level. There are also district technology mentors and a district technology department.

Student library assistants are primarily responsible for learning to circulate and shelve LMC resources. They have assigned shelves that they are required to straighten and read daily. Melissa and Jill draw on the individual talents of students and use those who are capable to assist with processing resources, help other students locate resources, and trouble-shoot technology.

In What Kind of Facility Are They Working?

Construction of the attractive modern LMC was completed in 1997. It is approximately 2,000 square feet in size and has sufficient shelving to house the collection. Abundant windows and a high ceiling give it a feeling of spaciousness. The glass wall that separates the adjacent LMC classroom from the main facility allows for easy supervision.

What Resources Are They Using?

During the 1999-2000 school year, the LMC received funding from a number of different sources:

- \$ 35,586 special state funding for all schools, grades K-12
- \$ 4,587 Library Lottery
- \$ 4,870 Instructional Media
- \$ 3,699 District library funds
- \$ 4,404 ESEA Title VI federal funding

Total funding was \$53,146, a huge amount compared to the past three decades of minimal funding in California for school LMCs. Melissa has used some of the money to purchase hardware because, "Some of the computers were," she says, "near death."

All twenty-seven student computer stations in the LMC are connected to the online catalog and to the Internet. The computers are gradually being changed from Macintosh to PCs. Students can access the technology resources available in the LMC from classrooms. They can access the school district at www.clovisusd.k12.ca.us and a website created by Rob Darrow (rdarrow@clovisusd.k12.ca.us), another library media teacher in the Clovis School District, from both the school and their home. Rob

Darrow's website provides a chart of Mike Eisenberg and Bob Berkowitz's "Big 6" research skills and websites that support the curriculum at Rob's school.

Technology extends beyond the LMC. As previously mentioned, Clark Middle School participates in the Laptops for Learners program, and all academic teachers have from three to five laptop computers in their classrooms for student use. Many students have their own laptops.

There are approximately 13,500 books in the collection, not quite eleven books per student. Paperbacks, often preferred by students, supplement the book collection. During the 1999-2000 school year, because of the larger than usual amount of funding available, Melissa felt able to weed obsolete and damaged books and replace them with new up-to-date materials. She has used most of the money to purchase fiction, nonfiction, and reference volumes.

Melissa is building a collection of books in languages other than English. She says, "Although many of our ELL students are unable to read in their primary language, they are thrilled to see these resources. Those who are able to read in their primary languages use the books in languages other than English for research and recreational reading. Students studying Spanish read the Spanish-language materials."

There is a collection of about 1,300 videos.

The LMC subscribes to 30 magazines, many of them professional, and two newspapers.

Statues related to the cultures studied in world history are part of the LMC collection but are permanently housed in classrooms. Prints of paintings linked to world and American history circulate from the LMC.

What Are Some of the Library Media Center Policies?

The LMC is open daily from 7:10 a.m. - 4:00 p.m. Monday through Thursday and 7:10 a.m. - 3:00 p.m. on Friday. It is also open during both lunch hours and during the morning break.

Parents and students are required to sign an acceptable use policy before students are permitted to use computers. Stickers are placed on student ID cards to indicate they have a signed Internet permission slip on file. In addition, the school district has installed a filter. There are seldom problems due to student misuse or blocked sites.

Students may check out three books at one time. They may also check out magazines. Reference books do not circulate.

3.2

MELISSA'S STORY

As the library media teacher for over 1,200 seventh and eighth graders, I have always faced the challenge of guaranteeing a meaningful collaboratively planned unit for all incoming seventh graders. For this unit, information literacy skills needed to be integrated into a content area. It needed to be done during the first quarter of school. Due to the sheer number of students, I had never found a way to accomplish thisuntil now. This year, several changes on our campus inspired a collaboratively planned unit of study in which all the above goals were met and a LMC orientation took place! Hooray!

A new school opened in our district in September, 1999, drawing 500 of our students and close to twenty teachers. In addition, a science course became a requirement for the seventh graders, and several elective classes were deleted from our schedule. Experienced teachers who had formerly taught electives such as woodshop and drafting were suddenly teaching science! They are wonderful teachers who were faced with teaching a new subject. At the end of the previous school year, as my old friends were making their plans to teach an entirely new subject, I volunteered to work with them to collaboratively plan a unit to kick off their first year of teaching science. The experience has had a positive impact on our students, classroom teachers, and me!

The project we developed together, the Scientist Bioboard Unit, requires students to work in pairs as they research an assigned scientist. This unit has it all – cultural/gender diversity, language arts standards, science benchmarks, technology, and information skills. We decided to introduce various scientists to the incoming seventh graders via a resource-based unit that uses print and non-print resources such as biographies about scientists, print encyclopedias, other reference books, and the Internet. (Since I am our school's webmaster, I was able to easily add links to our website to guarantee immediate student access to appropriate resources.)

The students participate in an orientation to our LMC at point of need as they participate in the science unit. They learn expectations for behavior in the LMC, Internet use, location of resources via our online catalog, note taking, and bibliography (along with the content being studied, of course). Process and product are scored and checkpoints are set up to guarantee student success. Tasks are divided evenly between the partners. They work together to network and share resources, but are held individually responsible for their part of the project. The final product is a Bioboard that displays the information the students gathered.

The three seventh-grade science teachers collaborated with me for this project. Our roles were clearly defined. The teachers brought their content area expectations, and I contributed my knowledge of resources and strategies that would meet the needs of all seventh graders, guaranteeing their success. This enabled me to define for the teachers my role as a library media teacher. They learned what a resource-based unit looks like.

Once we decided upon appropriate topics, we brainstormed final projects that would demonstrate what students had learned. We decided to modify a tried and true unit, one I had already done with others, so we didn't have to reinvent the wheel. This is how we divided up our work:

Responsibilities of science teachers:

- Decide on topics
- Bring knowledge of individual student needs
- Organize students into appropriate partnerships
- Score half of each class for process points, e.g., notes, bibliography sheets, rough drafts, final product

Responsibilities of the library media teacher:

- Locate appropriate resources to meet the needs of all learners
- Create a project sheet listing expectations for students
- Provide instruction on LMC use, note taking guidelines, overview of project
- Score half of the class for process points, e.g. notes, bibliography sheets, rough drafts, final project

The impact of this unit on student achievement has been huge! It is wonderful to be able to have a single point of reference for all seventh graders regarding specific information literacy standards. Whenever I need to jog students' memories as they work on new units of study, I find myself saying, "Remember when you came to the LMC for your Science Bioboard unit in September?" At least once a day I hear students asking, "Oh, you mean take notes like we did in science?" This experience empowered our seventh graders to independently access, process, and communicate information.

This project has impacted my teaching positively since all seventh graders now use as a point of reference the information literacy skills we covered in it. As we do other projects throughout the school year, we are able to raise expectations for students since the basics have already been mastered.

The icing on the cake is that I was able to spend time with each and every new seventh grader on campus during the first few weeks of school. I really think that this unit impacted more than the content area and information literacy skills. It has given our students a positive first experience in the LMC, and they truly know the Clark Intermediate LMC belongs to them!

3.3

PLANNING FOR RESULTS

Melissa Wells

The first step in planning instruction is to determine what is to be achieved, that is, what we want students to know and be able to do. This involves determining which educational standards will need to be met. Second, decisions must be made as to what is acceptable evidence of student learning. The criteria need to be shared with students so they know exactly what is expected of them. The third step, which can only realistically be accomplished after the prior decisions have been made, is to decide upon the instructional strategies to be used and the activities in which students will engage. The plan for Melissa's lesson follows; observations regarding how standards are met are included.

Identify Desired Results

Information Literacy Standards

Standard 1:...accesses information efficiently and effectively.

To facilitate student access to information, Melissa found and linked pertinent websites to the school website. Students learned how to use the Internet and to locate print resources on the online catalog. On the assignment sheet, Melissa integrated the Big Six Research Skills into the project. She and the classroom teachers evaluated both the process and the product, and they set up checkpoints to increase student success.

Standard 2:...evaluates information critically and competently.

Students selected pertinent accurate information about a scientist. They then created a Bioboard that included the following: (1) history/ background, (2) impact on the world, (3) what would have happened if he or she had never been born, (4) a newspaper article, (5) diary entries or a letter, (6) a timeline, and (7) pictures.

Standard 3:...uses information accurately and creatively.

Students reported information about a scientist's background and impact on the world. They wrote imaginatively about what might have happened if the scientist they studied had never been born. They created a newspaper article about an event in the scientist's life and, imagining they were the scientist, wrote either diary entries or a letter.

Standard 6:...strives for excellence in information seeking and knowledge generation.

Partners worked together to network and share resources, but were held individually responsible for their part of the project. Process and product were scored and checkpoints were set up to insure success. When the students did other projects throughout the school year, expectations for them were higher, because, through this project, they had already mastered the basics.

Standard 7: ...recognizes the importance of information to a democratic society

In thinking about what would have happened if the scientists they studied had never been born, students became aware of the importance of scientists to society.

Standard 8: ...practices ethical behavior in regard to information and information technology.

Students learned how to create a bibliography.

Standard 9: ...participates effectively in groups.

Partners worked together to network and share resources, but were held individually responsible for their part of the project.

Science Content Standards for California Public Schools

There is clear overlap between the following science standards and the information literacy standards.

- Standard 7.a: Select and use appropriate tools and technology to perform tests, collect data, and display data.
- Standard 7.b: Use a variety of print and electronic resources to collect information and evidence as part of a research project.
- Standard 7.e: Communicate the steps and results from an investigation in written reports and oral presentations.

Students learned how to use the Internet and to locate print resources on the online catalog. They created Bioboards to display the information they had gathered. On the Bioboards they posted a variety of kinds of written reports.

Determine Acceptable Evidence of Learning

Students will use the Big Six Research Skills and electronic and print resources to access, evaluate, and use information. Working as partners, they will create Bioboards that include the following information about a scientist: (1) history/background, (2) impact on the world, (3) what would have happened if he or she had never been born, (4) a newspaper article, (5) diary entries or a letter, (6) a timeline, and (7) pictures.

Plan Teaching and Learning Experiences

Students will need to know...

- Internet searching techniques
- Search skills using the online catalog
- Note taking skills
- Format of a bibliography

Students will need to be able to...

- Locate information
- Evaluate and synthesize information
- Share responsibilities and resources with a partner
- Create a Bioboard

Responsibilities for Teaching and Learning Experiences

1. Plan the unit of study. (classroom teachers and library media teacher)
2. Decide on topics. (classroom teachers)
3. Organize students into appropriate partnerships. (classroom teachers)
4. Locate appropriate resources. (library media teacher)
5. Create an assignment sheet. (library media teacher)
6. Provide instruction on using the Internet, locating information on the online catalog, note taking, and creation of a bibliography. (library media teacher)
7. Evaluate the project (classroom teachers and library media teacher)

4.1

ACTIVITY + BOOKS + CHILDREN = SUCCESS

Sandy Schuckett El Sereno Middle School

"The first year we did this, I couldn't WAIT to see the finished product! And, when a couple of kids brought up a plastic bin filled with colorful little books, I was totally blown away. The results were beyond belief! Each child's effort was unique. Some excelled in the language part; others excelled in the art and design. Even the do-nothings and the dreamers produced amazing work. I was so proud of them that I had to share the books with the administration, with other teachers, and even at a district-wide librarian's meeting.

In all of my 30 plus years in the school library, this project was the one that I enjoyed the most, and the one, in my opinion that created the most learning on the part of the kids. It just goes to show that ACTIVITY + BOOKS + CHILDREN = SUCCESS."
Sandy Schuckett

Who Are the Students?

El Sereno Middle School is located in an old traditional community in northeast Los Angeles that has been multiethnic for years. It is a lower middle working class neighborhood. The 2,400 sixth through eighth-grade students attending El Sereno Middle School are primarily Hispanic (89%), but there are students from many other ethnic groups, including Asian and African American. Many of the families are third and fourth generation American born.

Most classes at the school are taught in English, many in sheltered English. Newly arrived Spanish-speaking students receive some instruction in Spanish in the content areas. Aides work with newly arrived speakers of Chinese.

In addition to its gifted magnet program, the school has a number of gifted students clustered together for core classes in the regular program. A math, science, and technology magnet is open to students of all ability levels.

Many physically disabled and learning disabled students attend El Sereno, including wheelchair-bound, deaf and hard-of-hearing, and autistic youngsters. Special education classes are provided for those who aren't mainstreamed. Many of these students use the LMC either in class groups or individually with their aides.

When compared with schools with comparable student bodies and faculties, El Sereno ranks in the eighth percentile on Stanford 9, the mandated statewide achievement test. However, when compared with all schools in the state, without reference to factors that typically limit achievement on standardized tests, it ranks in only the second percentile. Therefore, the basics, reading and math, are the curricular emphases. As part of its reform plan, the school has hired a private company, Action Learning Systems (ALS), to instruct the teachers in state of the art reading methodologies.

Who Are the Staff?

Sandy Schuckett has been the library media teacher at El Sereno Middle School since 1992. For 27 years, she was a library media teacher at various elementary schools.

The 20-hour library aide, Christy Zamora, is the only other LMC staff. There is no technology support staff at the school site. The only other assistance Sandy receives is from ten library practice students.

"I need more help. I'm often not satisfied with what I'm doing in almost any area, from instruction to management tasks," worries Sandy. "I don't feel as though I'm performing any of them at 100% because of the lack of sufficient staffing for the LMC. If I can complete a managerial task, I'm excited. When kids come in, if they need help, then I need to be there to help them instead of doing the other kinds of work necessary to creating and maintaining a viable LMC program. I have little stacks of stuff all over the place that are in mid-completion. However, looking at the whole school, this school does better than a lot of other schools with similar demographics because we have a lot of good teachers, we have a committed staff, and we have a strong library program implemented by a credentialed librarian."

Sandy has played an active leadership role as the California School Library Association's (CSLA) Vice President/Legislation. She works closely with CSLA's legislative advocates regarding state issues and with the American Library Association (ALA) Washington office regarding federal issues affecting school LMCs. She coordinates CSLA's Library Legislative Day with the California Library Association (CLA).

In What Kind of Facility Are They Working?

The large LMC, located on the second floor of the school, is traditional in appearance. Large, kid-friendly signage makes books easy to find. Some signage is in Spanish.

Long rectangular tables in two U-shapes facing each other create a class instruction area. There are clearly defined circulation and research areas.

With What Kinds of Resources Are They Working?

During the 1998-1999 school year, the LMC received funding from a number of different sources:

- \$ 49,998 special state funding for all schools, grades K-12
- \$ 1,433 state funding for school LMC resources, grades seven through twelve
- \$ 1,856 state funding for school LMC resources grades kindergarten through six
- \$ 3,000 state textbook money
- \$ 2,000 state bilingual funding
- \$ 14,094 district money
- \$ 1,290 of lost and paid funds from the past three years reimbursed by the school district
- \$ 9,298 ESEA Title VI federal funding

Total funding was \$78,702, a truly extraordinary amount compared to the past three decades of minimal funding in California for school LMCs. The increase in funding has allowed Sandy to greatly increase the amount of printed resources, up-grade nine student computer stations, and buy the latest software. All the student stations access Athena, an online public access catalog, and have CD capacity, but there is not yet a CD tower.

For the 1999-2000 school year, the state and federal funding are about the same. The Los Angeles Unified School District (LAUSD) designated part of the special state funding for LMCs for schools with less than the district average of seven books per student; El Sereno received an additional \$18,000 from this source. However, after just one year of providing LAUSD funding for school LMCs, the district has chosen to discontinue it. There are 13,000 books in EL Sereno's LMC collection, approximately

five books per student. The 24,000 books required to meet the district average would be impossible to fit in the LMC given its present shelving capacity, a problem with which many under-resourced LAUSD schools are struggling.

Sandy began gradually weeding the collection when she first started working at El Sereno Middle School and continues to do it gradually as more space is needed for new books or when she is shelving and spots outdated books. She feels she needs to close the LMC for a few days and complete the weeding, but this would deprive students of access.

Currently, the LMC is not hooked up to the Internet. Sandy was on the technology committee and requested linkage. However, due to a variety of factors related to the technology planning at the school, the LMC was not linked. Proposition BB funding, a bond issue passed by voters to renovate schools, will pay for wiring the LMC in 2002. Sandy theorizes, "It is not essential to be hooked up to the Internet in order to teach information literacy skills because those are taught with anything that has information. It is the thinking that is important, not just the resources that you are using. However, if the Internet were more readily available in the LMC, the students would have better opportunities to learn to navigate it independently." Lots of the students have the Internet at home or use it at the public library. Sandy does have the Internet on her office computer, and students use it when they need specific information.

What Kind of Instruction Is Provided?

The kind of instruction provided depends on the students' abilities, their prior experiences in the LMC, and how much they know about using it. "A lot of the instruction is done step-by-step and methodically with the whole class and with the students involved in doing something rather than just sitting and listening because I have found that works and students learn that way," declares Sandy. "I have used strategies such as jigsaw, cooperative learning, and learning station activities. I've used all the instructional methodologies, and, after my 38 years in this business, I think they all have their place, but I'm not into glitz, I'm into learning."

How Do People Work Together?

The young adult librarian at the El Sereno Branch Library comes to El Sereno Middle School regularly. She distributes applications for library cards to those who need them, describes programs at the branch that are of interest to middle school students, and sometimes does book talks. The connections with the branch have varied depending on who has been the director. During Sandy's early years at the school there was a lot of communication and collaboration. Sandy continues to notify the public library when major assignments are given. There was a period during which little happened. Now a new director is there, and they are reestablishing connections. Sandy promotes El Sereno Branch Library's special programs by advertising them to students and teachers.

Mi Casita (My House) is a parent center at the school. Parents attend classes there on how to help their children achieve. Sandy has done parent education sessions dealing with reading to young children.

The school is a member of a new collaborative, Healthy Start, involving many community agencies. It is a one-stop center housed at Wilson High School that serves all of Wilson's feeder schools, including El Sereno. There many student needs can be met, from counseling to glasses to physical therapy. The aim is to meet students' health needs from the time they enter kindergarten. The expectation is that healthy students will be higher achieving students.

4.2

SANDY'S STORY

Liz Chikuami, an enthusiastic, energetic, sixth-grade teacher and a curriculum expert who not only knows and understands children, but also totally overextends herself on their behalf, was a complete joy to work with. To my delight, after the initial sixth-grade orientation appointment, she would schedule her class into the library several times during the school year. It gave me the opportunity as library media teacher to really dig in with the skills necessary for information literacy, and I knew that everything done in the library would be reinforced and built upon in the classroom. What a joy!

I had the pleasure of working with her sixth-grade language arts classes for three years, and although we did pretty much the same projects each time, the processes grew and evolved through continual evaluation and reevaluation. The project I describe here had to do with the kids creating their own alphabet books on any subject they chose, which was the culminating library activity each year.

Liz's students were identified as gifted. They had a variety of talents and ways of functioning. Some were math wizards, some were artistic or musical, some were writers, and others were talkative argumentative thinkers who did no work. Some were dreamers. You knew that something was going on in their heads; it was just hard to tell what. What they had in common, their gifted status notwithstanding, was a minimal level of fluency in English, and this is what we were attempting to address with the ABC Project. We wanted them to use various types of dictionaries and other library resources, get into the idea of alliteration, and, in the process, increase not only their vocabularies, but also their comfort and familiarity with using anything alphabetical.

The assignment, which Liz had discussed with them at length before bringing them to the library, was to create an ABC book on any subject in any style. They were to use as much language as possible, to find as many words as they could for each letter that would fit into their plan, to consider design, color, and other artistic elements, and to have fun. And fun it was!

I scheduled the class into the library for one period every day for a week. Occasionally, block scheduling and my schedule enabled the class to stay in the library for two periods. Additionally, the kids knew that they could come to the library before and after school. With other teachers' permission, they could get a pass to come and work independently during the school day. Many were also public library users, and I alerted the neighborhood branch about this project. Because these kids had already had plenty of library experience, they were able to navigate on their own if they came in and I was busy with another class.

We started out, in the first session, with a large survey of various types of alphabet books. Before even looking at the books, however, we talked about what to look for in an alphabet book: How was language used? Was there just one word per letter or a group of words? Were there complete sentences? Were there rhymes or any other type of rhythm? Was there alliteration? And, very important, what did the author use for the letters Q, X, and Z, the hardest letters for ABC book writers? As to art and design: What was the format? How was the letter shown on each page? Where was it placed? What size was it related to the text? Was the letter highlighted in the word? Were the illustrations large or small? Was the text interspersed with the illustrations?

Were there borders on each page? How many words starting with the letter were featured? What was the color scheme, two or three colors or the whole spectrum?

The book I always shared first was *Alphabet City* by Stephen T. Johnson (Viking Childrens Books, 1995). It is a wordless picture book in which Johnson has created photographic paintings, one to a page, showing such mundane city stuff as manhole covers, light poles, bridges, etc., each of which has a particular letter embedded into its design. The book was a Caldecott Honor Book in 1996 and not only fascinated the kids, but also forced them to focus and observe carefully. It led smoothly to the discussion of the books that followed.

I would always have between 30 and 40 various types of ABC books on a table, some standing up, some stacked. They came from the fiction and nonfiction sections of our library collection, including 411s, as well as from my own personal collection at home. (I have always been fascinated by ABC books! Why? Who knows?) From each book, I would read students a portion, either from the beginning, if there was any type of sequence or story to the text, or skipping around. I would always show them the risky letters, good ol' Q, X, and Z. Then we would discuss the various elements as delineated in the original questions. As we progressed, the kids became more and more observant, more and more curious as to what kind of book would come next. You could just see the wheels turning as they, in their own minds, were already designing their own renditions of this project.

The final book I would read to them (as much for myself as for them, because I love it) was *A My Name Is ALICE* written by Jane Bayer and with wonderful full-color illustrations by Steven Kellogg (Dutton, 1984). For those not familiar with it, this, in my opinion, is one of the greatest books of all time. It is not only humorous (Kellogg takes care of that), but also integrates geography, language, science, rhythm, vocabulary development, and even a little romance! It's also great for physical education. (More about that later.) For each letter of the alphabet, there is a refrain at the top of the page. For example, for the letter Q, the refrain is "Q my name is Queenie and my husband's name is Quentin. We come from Quebec and we sell question marks." The refrain is followed by a framed full-page, unique, Kellogg illustration in which the characters are all animals. Below the illustration are sentences identifying the main characters, for example, again using the difficult Q, "Queenie is a QUAIL. Quentin is a QUAHOG." Exposure to this book just made the wheels turn even more!

The *coup de grace* was when I would produce a couple of nine-inch, rubber, bouncing balls borrowed from the P. E. department. I'd relive my own childhood as I'd explain that, in my neighborhood, we used to do a ball-bouncing game in which each player had to compose a refrain for each letter of the alphabet and recite it while bouncing the ball rhythmically, and, on each proper noun, swinging his or her leg over the bouncing ball. If you messed up, either on the refrain or the physical part, you lost your turn. When you got your turn back, you had to start all over again from A. I, as a budding researcher, went to the library, found the appropriate names, countries, products, and animals, listed them, came home, and memorized them. I practiced with the ball for hours. (There was no television in those days.) Needless to say, I was the champion on my block! When I got bored with one list, I would go back to the library and find new names/nouns. It was great physical and mental exercise. After relating all of this to the kids, I would demonstrate...Amazingly, the old lady can still do this! The kids were on the edges of their chairs. I put them in two groups to try the game. It turned out to be less of a cinch than they had expected, and, boy, did I suddenly gain a load of respect! By this time, the bell would ring, ending the first session, and they would be eager to return the next day.

On the second day, using a markerboard, I recorded some of their subjects, everything from animals to cars to flowers to Greek gods and goddesses to pets. One girl wanted

to create an alphabet book related to *The Simpsons* on television; she was a real addict and convinced that she could find a character for each letter. A couple of the usually tuned-out boys wanted to do books on cars; I started calling them the "car guys." They loved it!

To save time, on the markerboard I recorded call numbers for the various subjects. These kids had already had plenty of practice doing library searching so I didn't want to waste time on the OPAC or the card catalog. (Yes, I still used both!) I had a stack of reference books on various subjects, which I showed them briefly, and I reminded them that if they found a book on cars in 629.2, they might also want to go check in R 629.2. I had various atlases and picture dictionaries that they could use, if necessary. I reminded them that dictionaries were in 423. I reinforced the strategy of always checking first to see if a book has an index. Now, they were off and running! The enthusiasm was contagious, and even the dreamers got into it.

Liz had specified in the assignment that students needed to show her their completed ABC list first; then they could progress to the language, art, and design aspects of their books.

On the third day, we let them loose in the library. The ABC books were still available on the front table, and while some kids immediately started researching to create their lists, others chose to continue exploring different alphabet books. We didn't pressure them in terms of how they were using their time. They knew what the deadlines were, and we gave them freedom to function, each in his or her own way. Liz and I circulated, giving assistance where necessary, making suggestions, asking a lot of questions like, "Do you really think that is the best way to do it?", and assuring that everyone was on task.

The young lady using *The Simpsons* as her subject had the name of a character for almost every letter, as she had predicted, but she ran into a few roadblocks, and couldn't really find anything in our library collection that would solve her problem. This was obviously a situation that required the Internet, so I let her come into my office (the student workstations weren't online yet, and they still aren't!), and we got online. We brainstormed keywords, went to www.yahoo.com, and got a list of 30 or 40 hits. Since she, not I, was the *Simpsons* expert and a fast reader to boot, she could tell right away whether a citation would be worthwhile or not. After about five minutes, she came up with a *Simpsons* website which listed, in alphabetical order (what a deal!) the names of every character who had ever been on that program. Now she, also, was on the road to success.

The "car guys" found a lavishly illustrated book in the reference section on the history of the automobile, and they were in seventh heaven!

On the fourth and fifth days, the kids came in, got right to work, and continued their research. The books that they had already begun to use were not returned to their shelves. I had segregated them in shelf order on a special book truck to which I had attached a sign saying, "Reserved for Ms. Chikuami's class," so that when they came in they could quickly get the books they needed. Each day we devoted the last five minutes of the period to the ball bouncing game, so they also got a bit of exercise. So did I!

All in all, I would have to say that they used their time wisely. Many came in before and after school, some occasionally came in on a pass during other classes, and they pretty much finished their lists by Friday of the first week. Those who didn't, came on passes from Ms. Chikuami's class the following week.

They did all of the writing, artwork, and assembling of the books in the classroom. Liz had decided on a uniform format: an accordion book, 6 x 6 inches square, with poster

board covers, and tied with a ribbon. She provided all of the materials: pre-cut inside pages, covers, ribbon, and several types of pinking shears so that the kids could create covers with scalloped, zigzag, or other interesting types of edges. She also provided various tools for the drawings: crayons, colored pencils, markers, pastels. I already said this teacher is incredible!

The first year we did this, I couldn't WAIT to see the finished product! And, when a couple of kids brought up a plastic bin filled with colorful little books, I was totally blown away. The results were beyond belief! Each child's effort was unique. Some excelled in the language part; others excelled in the art and design. Even the do-nothings and the dreamers produced amazing work. I was so proud of them that I had to share the books with the administration, with other teachers, and even at a district-wide librarian's meeting.

Liz and I pretty much evaluated the project in the library or in the lunchroom as we went along. We made minimal changes from what we did the first year. These basically had to do with providing a little more time for review of using an index or the OPAC and card catalog, where necessary, reminding students to draw, not trace pictures, and finding ways to separate the overly sociable types.

In all of my 30 plus years in the school library, this project was the one that I enjoyed the most, and the one, in my opinion, that created the most learning on the part of the kids. It just goes to show that **ACTIVITY + BOOKS + CHILDREN = SUCCESS**. Collaboration with an excellent teacher is the icing on the cake!

4.3

PLANNING FOR RESULTS

Sandy Schuckett

The first step in planning instruction is to determine what is to be achieved, that is, what we want students to know and be able to do. This involves determining which educational standards will need to be met. Second, decisions must be made as to what is acceptable evidence of student learning. The criteria need to be shared with students so they know exactly what is expected of them. The third step, which can only realistically be accomplished after the prior decisions have been made, is to decide upon the instructional strategies to be used and the activities in which students will engage. The plan for Sandy's lesson follows; observations regarding how standards are met are included.

Identify Desired Results

Information Literacy Standards

Standard 1: ...accesses information efficiently and effectively.

Students needed to have access to a large variety of alphabet books. To facilitate and expand access, Sandy gathered together those in the LMC and added some from her own collection. Before sharing the books, she directed the students to note imaginative uses of language, art, and format. After she shared a number of books with them, students had plentiful opportunities to browse on their own.

The students had already had a great deal of practice doing research in the LMC and were familiar with both the OPAC and the card catalog. Sandy briefly introduced the students to reference books on various subjects and reminded them that if they found a book on, for instance, cars in 629.2, they might also want to go check in R 629.2. She reinforced the strategy of always checking first to see if a book has an index.

Since many students were also public library users, Sandy alerted the neighborhood library about this unit of study so that the librarians there would be prepared to assist the students.

Standard 3: ...uses information accurately and creatively.

The students discovered a wide variety of literary devices, e.g., rhyme, rhythm, and alliteration, in the alphabet books. They selected from these the devices they most enjoyed or that they felt they could use most effectively and emulated them in the books they created. They used design, color, and other artistic elements to enhance their books.

Standard 4: ...pursues information related to personal interests.

The students were free to choose any subject in which they were interested.

Standard 5: ...appreciates literature and other creative expressions of information.

Again, the students discovered a wide variety of literary devices in alphabet books. Rhythm, especially, was emphasized through the ball bouncing game. Students selected from the literary

devices the ones they felt they could use most effectively and emulated them in the books they created. They saw how design, color, and other artistic elements help convey information.

English-Language Arts Content Standards for California Public Schools

Writing Strategies

Organization and Focus

Standard 1.1: Choose the form of writing that best suits the intended purpose.

There is clear overlap with the latter two information literacy standards. As stated above, the students selected from alphabet books the literary devices they felt they could use most effectively and emulated them in the books they created.

Standard 1.3: Use a variety of effective and coherent organizational patterns, including comparison and contrast; organization by categories; and arrangement by spatial order, order of importance, or climactic order.

Students determined the spatial order of words on the page as part of creating an effective design. Some may also have arranged words in order of importance or in climactic order; they had great freedom in creating their alphabet books.

Writing Strategies

Research and Technology

Standard 1.4: Use organizational features of electronic text to locate information.

Access to the Internet was limited to the computer in Sandy's office, so this source of information was used only when other sources failed. When, for instance, one student was unable to come up with a character from *The Simpsons* for every letter of the alphabet, she and Sandy brainstormed keywords and, using a search engine, located 30 to 40 characters' names.

Writing Applications

2.2.c: Follow an organizational pattern appropriate to the type of composition.

Basic to their task was the organization of information into an alphabet book.

Determine Acceptable Evidence

Students will create an alphabet book containing accurate information. They will use as many words as possible for each letter and one or more literary devices, e.g., rhyme, rhythm, or alliteration. Additionally, they will use design, color, and other artistic elements to enhance their book.

Plan Teaching and Learning Experiences

Students will need to know...

- Characteristics of alphabet books
- Various literary devices, including rhyme, rhythm, and alliteration
- Location skills using the arrangement of the LMC and indexes

Students will need to be able to...

- Locate information
- Synthesize information
- Use literary devices such as rhyme, rhythm, and alliteration
- Use design, color, and other artistic elements

Responsibilities for Teaching and Learning Experiences.

1. Determine the overall purpose of the project. (classroom teacher and library media teacher)
2. Plan the project. (classroom teacher and library media teacher)
3. Determine the format of the book. (classroom teacher)
4. Introduce and explain the project. (classroom teacher)
5. Gather the resources. (library media teacher)
6. Introduce literary and design elements found in alphabet books. (library media teacher)
7. Provide a kinetic activity to motivate students and to reinforce the element of rhythm. (library media teacher)
8. Review the resources available in the LMC. (library media teacher)
9. Provide time for students to search for information, take notes, and create their alphabet books. (classroom teacher and library media teacher)
10. Ask guiding questions and provide assistance as necessary. (classroom teacher and library media teacher)
11. Evaluate the project. (classroom teacher)

5.1

THE LIBRARY MEDIA TEACHER AS LEADER AND INNOVATOR

Laura Bokesch
South Lake Middle School

"I enjoy developing curriculum collaboratively. I love working with the kids. It inspires me. I'm continually learning. I think it's important for all people in this role to be life-long learners and to engender a love of learning and the excitement that comes with new discoveries."

Laura Bokesch

Who Are the Students?

South Lake Middle School serves approximately 550 seventh through eighth grade students. It is recognized as a California Distinguished School, is a member of the Coalition of Essential Schools, is a California State SB1274 Restructuring School, is a Professional Development School with University of California, Irvine's teacher training program, is a participation grant recipient of Annenberg Institute for Educational Reform, and is an active participant with Project Tomorrow.

The school, built in 1994, is located in an upper-middle class neighborhood in Irvine. However, the student body varies from lower to upper-middle class, and approximately 9% of the students receive federally subsidized lunches. The school provides scholarships to meet the needs of lower-income students; for example, if lower income students want to attend the after-school classes run by the PTSA, scholarships are provided. The transiency rate is low.

South Lake implements full inclusion of all students. Instruction is differentiated within each classroom to meet the full range of needs. Until the 1999 - 2000 school year, limited English speaking students were placed in sheltered English classes. Now they are placed in regular classes with teachers who have had SADAI training. (The majority of students are native English speakers; however, Japanese, Vietnamese, Spanish, and Farsi are among the primary languages of about 25% of the students.)

All learning disabled students are in regular classrooms. Three special education teachers give extra help in their classrooms and in a separate setting, as needed, for individuals and small groups. Aides provide support to whatever extent is needed; this varies from one aide for all the limited English speakers to, in some cases, one aide per learning disabled student.

Within each of the villages into which students are divided, there are clusters of honors (gifted and high achieving) students. Those who haven't been placed in the honors program but would like to participate have the option of accepting the honors criteria and assignments. To qualify to be part of the program, they have to stick with their choice for an entire trimester.

Who Are the Staff?

Laura Bokesch, the library media teacher, was part of the staff that began planning the school in 1992. She was involved in determining the school's philosophy, designing the architecture, and hiring the teachers.

Laura's primary focus is curriculum. "I enjoy developing curriculum collaboratively," Laura says. "I love working with the kids. It inspires me. I'm continually learning. I think it's important for all people in this role to be life-long learners and to engender a love of learning and the excitement that comes with new discoveries."

Laura takes major responsibility for technology at the school and is its local area network (LAN) administrator. She gives many technology workshops for the staff as well as for parents. "The philosophy at the school is that technology is a tool, and we need to be educated in which tool is best," says Laura. "We ask ourselves, 'Is a book better for this or is it better to go on the Internet?' We start with our philosophy and have staff discussions about what technology means to us. It's easy for us to have those discussions because being technologically literate is one of our Expected Student Learning Results (ESLRs). Then we have to have the hardware and software to implement our goals." Laura researches where to get the equipment, where is the best place to put it, how to set up accounts for student and staff email, and how to train staff, students, and parents. She also does trouble shooting. There are representatives from every village on the technology committee, which Laura chairs. All decisions are made collaboratively.

The part-time library assistant, Julie Ehrman, works 19 hours per week. She and Laura, in addition to their duties in the library media center (LMC), run the parent volunteer program. A part-time technology specialist also works 19 hours per week. Both are funded through School Improvement (SIP). "This reflects a commitment by the school that in order for there to be a LMC program there needs to be support for that program," explains Laura.

How Do People Work Together?

Technology is used to further the goal of developing a sense of belonging to the school community. Students and parents sign permission forms to post student pictures on the school's website at <http://www.sl.iusd.ca.us>. (Click on Resources and go to Technology in the Library Media Center.) The school website, which Laura authors, is a major means of communicating with the local community as well as its sister cities in Tsuba, Japan and Hermosillo, Mexico. Student work, lesson plans, resources for specific curriculums and school information are shared.

South Lake offers entering seventh-grade students a three-week summer program called Moving into the Middle. Incoming seventh graders have an opportunity to meet students from all the different feeder schools so they begin building relationships before the regular school year begins.

South Lake is a Character Counts School. To the faculty, that means modeling the organization's nine pillars of character. (See the school's website). Student learning is driven by ESLRs determined collaboratively by the faculty. The information literacy standards found in *Information Power; Building Partnerships for Learning* parallel almost everything found in the school's ESLRs (expected student learning results).

As previously mentioned, there are villages, each composed of a cross section of students. The villages create an even more intimate atmosphere than the already small student body provides. "The students see the villages as their homes and their classmates as their friends," Laura explains. Each village is composed of a core of four teachers, two humanities teachers (English/ Social Science), a math teacher, and a

science teacher, who are responsible for planning the instructional program for approximately 125 students. The core teachers are supported by instructional interaction with the library media teacher, counselor, physical education teachers, and the special education support team. Students rotate through art, technology, presentation skills, and life skills exploratories in three-week blocks, and then repeat the cycle. The content taught in these exploratories is integral to the curriculum. The school's goal is to integrate all curriculum in such a way that students learn to make the kinds of connections they need to make in real life. Therefore, nothing is taught in isolation. For example, if students are studying in science about the different ecosystems, they might create papier-mache endangered animals in an art exploratory. If students are studying the medieval time period, then, in a technology exploratory, students might create Power Point presentations to demonstrate what they have learned.

Judy Cunningham, who has been the school's principal since its inception, and the other founding staff members decided that classroom teachers would be hired with the understanding that they would collaborate with the library media teacher. "We are in a position to be change agents within schools and districts because we impact the entire population," says Laura. "We need to be at the forefront of everything that's happening and to be working with teachers to continually grow. We can create a huge difference within a school. We need support and buy-in and that's obtained through collaboration. I collaborate a great deal with staff. We write units and implement units together. We reflect upon them and refine our work. We never teach the same way twice. The kids are different. The situation is different. We've got a new idea. We want to try it." She works mainly with the humanities department, but also works with the other departments. For instance, for an ecosystems project, Laura worked with both the humanities teachers and the science teacher. Information literacy standards advocated in *Information Power* were integrated into a study of geography and science. In humanities as well as in science the students used their research to write stories about their ecosystem.

In one interdisciplinary effort, a Hyperstudio project was selected to be the evidence of learning in a unit in which eighth-grade students studied environmentalism and family history. The students had just finished reading *Glory Field* by Walter Dean Myers (Scholastic, 1994), a novel in which slavery is traced from its origins to modern times. The unit was driven by an essential question, that is, a question with real-life implications: How have we influenced our environment since the 1800s? The students were grouped as families. Within their families they created characters and these characters were given a family tree, just as in *Glory Field*. The students researched the environmental issues that were important during the different time periods experienced by the families they created. At the culmination of the unit, each student received, at cost, a CD-ROM containing his or her project. Recently, Laura began using website development as the technological tool rather than HyperStudio. This way student work is published to the public. Student-created assessment rubrics become more meaningful when they know their work will be published to a large audience.

One way Laura works with the math teachers is to provide technological support and to find good products for them. Whenever Laura collaborates with other teachers, she provides the math teachers with a copy of the assignment, so, if possible, math gets woven into collaborative projects.

Teachers seek Laura out. A lot of the planning with Laura takes place after school, often between 5:00 p.m. and 6:00 p.m., because there isn't time during the regular school day. Lise Mennes, a humanities teacher, explains, "She is definitely a resource for teachers here in terms of thinking strategies, assessment strategies, and critical questions to ask kids. She's terrific. Time, however, is a real important issue. Think of the wonderful things we could plan if we had more time!"

A science teacher works with Laura on creating rubrics and on making critical thinking one of the elements of the science units. She says, "A lot of the time students write essays or analyses. Laura asks questions such as, 'How are you going to assess that?' or 'How are you going to look for that?' She is an important ear when I'm developing the rubrics for student assessments. We talk about what we're studying. Then Laura makes sure to link websites that students can use as sources of information to the school website. That has been a tremendous support to our program in terms of finding things that are at the kids' reading levels and at their thinking levels.

Students are always welcomed into the LMC. When they come in, Laura frequently has a great book that she wants to show them. She's excited about sharing books. It makes the whole school feel different. I worked in another school where the library media teacher was less involved. I know what a difference it makes to the students for them to know there's someone besides their classroom teacher who tells them how to cite sources, how to use information, how to not copy, how to paraphrase. It makes a difference to them that they've got an additional support outside the classroom. It's a tremendous difference and a tremendous benefit for me as a teacher."

Lisa Mennes and Michelle Lee, humanities teachers, are partners. Lisa explains, "In seventh grade we start out with an information literacy unit that introduces students to research strategies and to using technology as a tool for doing research. We collaborate with Laura on what the focus of the project will be as well as the rubric and the grading.

"We collaborate with Laura when we're studying literature. Laura works with a smaller group while we work with a larger group. The groups will have the same types of requirements, but Laura always takes the group with which she is working to a higher level of critical thinking.

"We also just finished participating in History Day for the first time. Laura was very instrumental in helping us with research and with using the LMC. She was a coach for the students as well as our coach.

"She's right there from the beginning helping us decide what is the objective of an assignment. She's also part of the evaluation process. Laura works with all the humanities teachers in the same ways she works with us. Each unit looks different for each group of kids. It's very diverse."

Michelle adds, "She helps kids access the correct information. She's very good at helping kids evaluate the information that they get off the Internet. She helps them decide if information is worthy of the assignment or if it's off topic."

At the end of almost all units of study, the students present what they have learned to their peers. There are Parent Nights at which students present to the parents, and the parents have an opportunity to ask questions and to get a sense of not only what their child has done but also what other children are doing. "They are just blown away by what their kids can do," reports Laura. She is always involved in these efforts. Parent support is strong. Every year the PTSA contributes at least \$3,000 towards LMC materials

South Lake has many business partners. Businessmen participate in the school's technology planning. There is a program through which students spend the day with people at their places of work. Companies sometimes lend equipment to the school. Partners contribute matching funds to buy books for the LMC. During science fairs held in the LMC, businessmen come to talk with the students about their projects.

When the students did travel projects, travel agents participated in evaluating the students' work.

South Lake has a business partnership with a hotel that has a restaurant. Recently, the restaurant was getting ready to set up a new lobster bar and wanted some research done in order to provide background information to its customers. The hotel restaurant asked if there were any students at South Lake Middle School who could do research for them about lobsters, their habitats, and the kind of lobsters that would be best to feature. Laura worked with a few eighth-grade students who agreed to research the topic thoroughly. They put together a spiral-bound booklet about lobsters that included both text and images. Then they gave a presentation to the chef and the head of the hotel and restaurant using a laser disk, a CD-ROM, Power Point, and books. After the presentation, when the lobster bar opened, the students were given a lobster meal. The LMC was given \$100 to use for the purchase of more research books for the students. It was a valuable partnership for all involved and an excellent reinforcement of information literacy skills; it was a real-life situation that enabled students to fill a need.

In What Kind of Facility Are They Working?

Classical music provides a peaceful pleasant backdrop to the activities in the LMC. Student work is very much in evidence. The main room of the approximately 2,000 square-foot facility has space for two sets of tables and chairs and provides sufficient seating for two class-size groups. An alcove with a sofa and comfortable chairs is used for recreational reading.

All three rooms connected to the LMC have large windows that make supervision easy. One small room houses the professional library and also serves as a conference room. Another small room has two multimedia computer stations, a television, a laserdisc, a VCR, and a CD-ROM tower for burning CDs. There is also a computer lab adjacent to the LMC. It houses a smart board for interactive presentations and a networked scanner plus two printers. The arrangement of student stations in the roomy computer lab encourages teamwork.

With What Kinds of Resources Are They Working?

Decision making in the Irvine Unified School District is decentralized. Each school determines how to spend district funding. Laura works very closely with the principal and helps other departments with their purchasing. She does research on products. She works with technology monies, GATE monies, book monies, donated funds, library grant funds, and mini-grant funds from proposals she has written. She buys textbooks, all technology for the school, and all LMC materials.

The LMC has about 6,000 books, approximately eleven books per pupil. "Thank goodness for the library grants we've been receiving!" exclaims Laura. "When the school opened, I hand picked every book purchased on the basis of standards, readability levels, curriculum, and teacher requests. As new teachers were selected by a team of South Lake faculty members, we had many discussions about units to be taught and what the needs would be in the LMC."

There are about twenty magazine subscriptions, some of them donated by parents during the school's annual magazine drive. Most of the magazines are for student enjoyment. Laura no longer keeps a backlog of magazines. Students are able to access back copies through web-based databases.

A collection of about 100 videos is housed in the LMC.

The maximum allowed for technology from the special state funding for school LMCs was used to equip the computer lab connected to the LMC. The balance was spent on books.

Within the school there are over 100 student computer stations. In the LMC there are eleven, in the adjacent lab, fifteen, in the professional library, one, and, when these are all in use, laptops are available. In a centrally located room in every village, there are twelve student computer stations and methods of projecting from computers to large-screen monitors. Alpha Smarts, keyboards with memory capability that can be plugged into computers, are available for use in the LMC and, with parental permission, may be checked out to go home.

Every teacher has a computer. "We feel it is important that teachers be technologically literate in order that their students be technologically literate," explains Laura. Through the Irvine Company, the major land developer of Irvine and surrounding communities, the school district has had a computer distribution program called Foundations for the Future. Each year, teachers from a different curricular area receive laptops. As part of the agreement, after receiving training, teachers may keep the laptops for as long as they stay in the district. Laura was a mentor for the program and worked with the trainings. "It's been wonderful for our district to get an across-the-district perspective as to how we use technology," says Laura.

What Are Some of the Library Media Center Policies?

Laura was on the district committee that wrote the acceptable use policy for technology. During registration, all students and their parents must sign an agreement indicating they will follow the policy. It covers not just Internet use, but all computer network use, and is kept on file. In the LMC, students must display their ID cards on the computers whenever they use them. This signifies that they are aware of how to use the computers in a school setting.

The school technology committee decided that, in order to enforce the acceptable use policy on a school-wide basis, students need to know up front the consequences of violating the policy. They agreed that the consequences needed to be uniform throughout the school in order to achieve consistency of reinforcement and brainstormed a list of expectations and purposes. For example, because the function of the school is education, students may use curriculum-related sites only. In a technology exploratory, teachers discuss with the students the ethics of using the Internet and other aspects of computer technology, privacy issues, and how to take care of the technology. Finally, teachers make clear what will happen if policy is violated.

If there is a problem, teachers usually send the students involved to Laura. She reviews the policy with the students and has them choose from a list which consequence is appropriate for what they have done. In the LMC, a file of policy violators is maintained in the circulation system so repeat offenders are easily identified. As a result of these efforts, few problems occur.

Additionally, a firewall is implemented through the district office. Laura trains the students to know, if they get to an inappropriate site, how to react. Students know to use the back arrow to get out of an inappropriate site, then report the site to an adult. The adult gets the address of the site, reports it to the district office, and the district blocks it. Laura says, "We set the scene in the students' minds. It's incredible how good they are about this."

5.2

LAURA'S STORY

South Lake Middle School is configured into villages (teams) composed of a core of four teachers and approximately 125 students. Students remain in their villages for a two-year period; this facilitates personalization and allows a small group of teachers to really know the students with whom they work. The core teachers are responsible for planning the instructional program for the students in their village. They are supported by instructional interaction with the library media teacher, counselor, physical education teachers, and the special education support team. As the library media teacher, I work in partnership with classroom teachers throughout the year.

One unit that a humanities (English and social studies) team and I collaboratively planned and taught was on Islam. As is generally true for us at South Lake Middle School, our instructional roles as classroom teacher and library media teacher can't be discussed separately because they are so intertwined.

The planning process is set in motion at the beginning of the year. We schedule time blocks for collaborative units. Finding time for planning is often difficult. We use prep periods whenever possible. However, due to my teaching schedule, our prep periods frequently do not match during the initial stages. We schedule time together before or after school and sometimes have a working lunch. Ideas are often shared through email. Because we believe collaborating is important, we find the time to plan for it. How? It's a matter of making the commitment. If you want to strategically weave many strands into a unit, you have to plan.

Standards Based

The California history-social science content standards provide the core content for the unit. Not only do we as teachers need to focus on the standards, our students and their parents need to know what standards they are expected to meet at their grade level. Upon initiation of the unit, letters are sent to the parents informing them about the upcoming unit and its purpose and expected outcomes. The Islam unit was written to correlate with the California history/social science content standard 7.2: "Students analyze the geographic, political, economic, religious, and social structures of the civilizations of Islam in the Middle Ages."

Finding the Structure for the Content

A teacher who had taught in Morocco shared a unit he had done there, and we used that as a springboard. By doing research on the Internet, I found some ideas that helped get us started. The other teacher had some thoughts from a teacher curriculum institute that we were able to use. A whole new synergy was created. Following team meetings, I wrote up the rough drafts of our brainstorming sessions. The unit was continually refined during the design process and when we worked with our students. Each of us added our own special touches to create a comprehensive unit that included focus points from the history-social science and English-language arts content standards for California. In addition, we tied in our school-wide expected student learning results (ESLRs).

Outcomes

In the initial stage of our planning process we decided upon our outcomes. These specific outcomes were the basis for establishing the criteria in our assessment rubric. We looked at elements of depth and complexity because we wanted to challenge the students. Thus, students were asked to focus on the interrelationship between the medieval Islamic Empire and how it was structured versus how Islamic countries are structured today. The cultural universals to be studied were geography, politics/government, religion, economics, and society. We broke social universals into three subsets: (1) customs, behavior, dress, and living conditions, (2) education, and (3) the arts. Through these cultural universals, students looked for relationships between the past and the present. We then determined that a travelogue would be the structure for teaching this content.

Assignment

Together we composed a letter for parents explaining that students would either be developing a notebook or a website and that both formats would contain information about the Islamic past and the present-day country to which students would be planning a trip. Further information about the unit was made available on the school website at <http://www.sl.iusd.k12.ca.us>. (Click on Student Work and look in the archives at *Virtual Journeys*)

Finally, we wrote the assignment that would be given to the students. We called it *Virtual Journey to Islamic Countries*. On their assignment sheets, students were told to "find out which political, religious, and social elements in Islamic culture have had the strongest effect on Islamic countries today. Draw conclusions about how people's lives were affected by the spread of the message of Islam. Your task is to create a virtual journey..." Students, working with partners or in groups, started by researching cultural universals related to the medieval Islamic Empire. In addition, they created a travel itinerary to a modern Islamic country. In journal entries they described the places they visited and connected their knowledge of the past with their journey in the present. We divided the project into nine sections: (1) the Islamic past, (2) geography, (3) travel itinerary, (4) journal entries, (5) connections, (6) budget, (7) travel guides (the students), (8) glossary, and (9) bibliography. On the assignment sheets, we delineated the expectations for each section.

Whenever I collaborate with the humanities teachers, we work within a double time block, so we have the students for two periods in a row. In this collaboration, I worked with two groups of thirty students who were developing websites. The classroom teachers were teaching the same unit, but they worked with the students who were developing notebooks. Students were selected to be in the groups developing websites on the basis of letters they wrote to their humanities teachers explaining why they wanted their end product to be a website rather than a notebook.

Research Process/Implementation

The research process that we followed was based on information literacy strategies studied earlier in the year. The humanities teachers and I were able to reinforce information literacy skills because we had previously taught them as a team. Early in the school year, I team with every seventh-grade village and teach information literacy skills, integrated into the curriculum, to all students. Prior to this unit, students had learned strategies for accessing, analyzing, and using information.

Students had been exposed to the ethics involved in using information and knew the format for a bibliography. To reinforce and extend their ethical awareness, we spent a great deal of time discussing ethics and the need to give credit in bibliographies for

sources of both text and graphics. We teach the students that, when locating information on a website, they have to do the thinking, then highlight what they want. They copy just what they want in their notes into a word processing document. At the top of the document, they write the name of the website, its address, and the date they accessed it. On the printout, they again highlight key pieces of information. On their note cards, they describe their thinking. They tell us, for example, if they have paraphrased or quoted from their printout. Numbers on printouts, note cards, and bibliographies correspond so they can be cross-checked. All this reminds the students of the importance of citing sources.

I always need to make sure that what I'm teaching is in alignment with the content that is being taught in the classroom. I sometimes need to teach content as well as the research process. In this case, I needed to know if the students already knew the cultural universals and I could just refer to them or if I needed to teach them. I also needed to know how much students had learned about Islam before the humanities teachers and I began teaming.

We taught this unit twice during the school year. The first time, the sites the students selected to visit had to reflect the specified cultural universals. If students had chosen religion as their cultural universal, they could easily visit a mosque. However, if students had selected trade, it was difficult to find a site to visit. The second time we taught the unit we changed the requirement. We decided that if you were going to a country you would go to places just to have fun, so we let students choose one place to visit just for the fun of it. We found that choosing a site for fun furthered one of our goals, which was to develop an appreciation for the countries being studied.

The Internet has changed the way we do research projects. For instance, when students were developing their travel itinerary, they were able to go to the site of an airline and find out about a real flight. Sometimes they found out they couldn't travel to the country they had chosen unless they were diplomats, so we had to figure out how to get them into the country. Sometimes no flights went to the country, so we had to figure out how to take a ship from one place to another. We created maps and figured out the shortest routes. We determined which routes afforded the best value.

When students needed to use a particular piece of equipment with which they were unfamiliar, I briefly demonstrated how to use it. At other times, students who already knew how to use a piece of equipment demonstrated it for their peers. After the demonstrations, students immediately applied what they had learned. For this unit, I taught Front Page, an HTML editor for designing websites. I had been using it myself for our school website but I had never taught it. I wrote a student-friendly manual, and then gave students one-page handouts as I demonstrated different aspects of Front Page. We used Image Composer, which comes with Front Page, to design our graphics. We also used digital cameras and scanners. Students drew original pictures and we digitized them. Instruction in elements of layout and design and the use of graphics was critical to our final product. We worked on having a visual as well as a written flow. We used graphic organizers and worked on making the hyperlinks as intuitive as possible.

Assessment

The classroom teachers and I collaborated in deciding what the specific criteria on the rubrics should be. We divided them into four categories, form, content, impact, and technological literacy, and then determined the attributes under each of those categories. However, the classroom teachers' rubrics were different from mine because we further refined the rubrics with the students.

I found that, because I was using the creation of a website as my structure for meeting content standards, students viewed what they were doing differently. Students knew

their websites were going to be published...or not published. I didn't, in the final analysis, publish every website, because they had to meet specific standards. When the students and I refined the assessment rubrics together, they asked, for instance, "How many spelling errors can you have on a website and put it on the Internet? It's not acceptable to have any, is it Mrs. Bokesch?" I responded, "No, it really isn't, but, in terms of our assessment, how strict should we be on this?" We decided we would accept up to three spelling errors or typos. We kept going back and revising the rubrics to make sure we got the finished product we wanted. Knowing their website might be published on the Internet motivated students to do well.

The students who were not creating websites knew their projects were going to be presented to travel agents, and we were going to choose which trip was best, which one we would want to take. (In some cases travel agents were unavailable, and faculty members played that role.) Students wanted their trip to be chosen. Like the students creating websites, these students, with their classroom teachers, kept revising the rubrics so they could satisfactorily assess their products.

As students did their research, we collected and checked their note cards, bibliography cards, and rough drafts so process as well as product was assessed. The second time we taught the unit, we gave the students a timeline with the dates on which their work would be collected and evaluated, so they didn't feel overwhelmed at the end.

Presentation

When the students returned to their regular class schedule, the two humanities teachers and their students held an Islamic festival. The students who had created websites and those who had created notebooks shared their projects with all their classmates. We all held a Moroccan cleansing ceremony with a Moroccan visitor. (The teacher who had lived in Morocco had a friend visiting who came to the classroom.) Islamic music, food and Andalusian-style poetry from the eleventh century were shared. One of the Muslim students demonstrated henna painting.

At South Lake we are all in the habit of writing reflections. We do it at our staff meetings. We do it with our students; their report cards are written reflections and rubrics. Even so, as teachers we need to reflect more than we do. Again, it's a time issue. As I teach a unit, I always reflect and make notes as to what I want to change the next time. The classroom teachers do this too. We talk about our reflections, but if we could do this in a more formalized way and write up what we've learned, that would be better. Teachers have written me letters at the end of a unit assessing how they felt the unit went. That is really nice and an important step, but it doesn't always happen because we are all so busy.

The following is a reflection that one student wrote. I kept her reflection because it touched me, and I used her suggestions the next time that I taught the unit.

Student Reflection

I really enjoyed working with you on the website. I don't want to leave you and will miss you. I think the structure of the project was creative, and, as time went on, it got better and better! I think that next time you might want to have strict due dates of certain parts of the site. This way it won't be so rushed at the end of the project, like now. I also think that there should be an optional part. What I mean by optional is that they get to pick postcards, scrapbook, or something. They could choose one but they would have to do it. One mistake that I made was choosing my sites all in one city. I think it should be required to have three cities and two sites in each. It would be more of a variety. I really enjoyed writing the journal

entries. It gave me a chance to get to know the site and location better. I think the best part was designing it. It gave me a chance to let my creativity free. Doing this project gave me a chance to experience many things. One is learning how to create a website and be more technologically literate. Another is time management. Thirdly, learning to work with somebody different. Last but not least, getting to know you. I feel like I know you very well and can always come to you for questions. You have taught me many things and I feel as if I've known you more than a month. Thank you for all you've done.

*Yours truly!
Love,
R.F.*

5.3

PLANNING FOR RESULTS

Laura Bokesch

The first step in planning instruction is to determine what is to be achieved, that is, what we want students to know and be able to do. This involves determining which educational standards will need to be met. Second, decisions must be made as to what is acceptable evidence of student learning. The criteria need to be shared with students so they know exactly what is expected of them. The third step, which can only realistically be accomplished after the prior decisions have been made, is to decide upon the instructional strategies to be used and the activities in which students will engage. The plan for Laura's lesson follows; observations regarding how standards are met are included.

Identify Desired Results

Information Literacy Standards

Prior to this unit, all seventh-grade students participated in an information literacy unit in which they learned strategies for accessing, analyzing, and using information. The classroom teacher and the library media teacher collaboratively taught this unit.

Standard 3:...uses information accurately and creatively.

Students, working as partners or in groups, researched cultural universals (politics/government, religion, economics, and society) related to the medieval Islamic Empire. They created a travel itinerary for a modern Islamic country. They wrote journal entries describing the places they visited and connecting their knowledge of the past with their journey in the present. A thoroughly researched budget was included to make their virtual journeys realistic.

Standard 4:...pursues information related to personal interests.

Many students became so involved in the creation of their journey that they sought out both primary and secondary resources on their own. Some students, on their own volition, interviewed a person from the country they were researching.

Standard 5:...appreciates literature and other creative expressions of information.

During an Islamic festival held upon completion of the notebooks and websites, students created Andalusian-style poetry from the eleventh century.

Standard 6:...strives for excellence in information seeking and knowledge generation.

At the beginning of the unit, students received a copy of a thorough and complex rubric that contained the specific criteria with which they would be assessed. Throughout the project, students used it as a guide to continuously improve their product. Because of this, many group discussions occurred in which examples of student work were examined to determine how they might be refined to meet the criteria.

Standard 8:...practices ethical behavior in regard to information and information technology.

Throughout the research process, students kept track of all resources used, including pictures, and produced a very thorough bibliography. A note taking process was used to ensure authenticity and accuracy of their work.

Standard 9:...participates effectively in groups to pursue and generate information.

Because they worked in teams students shared information about relevant websites, good resource books, where to find images that enhance content, how to scan and take digital pictures, the writing process, peer editing, and the research process. Students communicated in class, after school and through email when there were problems or questions.

History-Social Science Content Standards for California Public Schools

Standard 7.2: Students analyze the geographic, political, economic, religious, and social structures of the civilizations of Islam in the Middle Ages.

Students were to focus on the interrelationship between the Islamic Empire and how it was structured versus how Islamic countries are structured today. They were to draw conclusions about how people's lives were affected by the spread of Islam. Again, the cultural universals to be studied were geography, politics/ government, religion, economics, and society.

Determine Acceptable Evidence of Learning

Students will work with partners to create either a notebook or a website that focuses on the interrelationship between the Islamic Empire and how it was structured versus how Islamic countries are structured today. They will draw conclusions about how people's lives were affected by the spread of Islam. The following cultural universals will be reflected in their product: geography, politics/government, religion, economics, and society. Note cards, printouts, and a bibliography will give appropriate credit for sources of information.

As one of several culminating activities, students will compose Andalusian-style poetry from the eleventh century.

Plan Teaching and Learning Experiences

Students will need to know...

- Strategies for accessing, analyzing, and using information
- Ethics involved in using sources of information
- Note taking skills
- Bibliography format
- Characteristics of Andalusian-style poetry

Students will need to be able to...

- Access, analyze, and synthesize information
- Create maps
- If creating a website
 - ✓ Use Front Page, an HTML editor for designing websites
 - ✓ Use Image Composer, a component of Front Page, to design graphics
 - ✓ Organize a website so that links are intuitive to the user
- Or create a notebook
- Write Andalusian-style poetry

Responsibilities for teaching and learning experiences

1. Plan the unit of study. (classroom teachers and library media teacher)
2. Develop a timeline. (classroom teachers and library media teacher)
3. Teach the cultural universals and information about Islam. (classroom teachers primarily and the library media teacher as needed)
4. Review the ethics involved in using information. (classroom teachers and library media teacher)
5. Review the format for a bibliography. (classroom teachers and library media teacher)
6. Review note taking skills. (classroom teachers and library media teacher)
7. Teach how to use Front Page. (library media teacher)
8. Teach how to use Image Composer. (library media teacher)
9. Teach the organization of a website so that links are intuitive to the user. (library media teacher)
10. Teach graphics, including elements of layout and design. (classroom teachers and library media teacher)
11. Design rubrics. (classroom teachers, library media teacher, and students)
12. Evaluate projects. (classroom teachers and library media teacher).

6.1

COLLABORATION IS A PRIMARY GOAL

**Carolyn Owens
Ramona High School**

"No matter how many years you are in the library media center, you always have teachers who seek you out. They do that naturally; it's comfortable for them. Then you have other teachers that, no matter how many times you pound on their door, it's just not comfortable for them. Either they're unsure of themselves, or they don't think you have anything to offer. I don't think that's ever going to change, but I just keep pounding. Sometimes I think someone is never going to change and doggoned if they don't surprise me and say 'By the way, I want to do a project with you.' What's important is that people see you as someone who is open, not judgmental. Collaboration doesn't even have to be formal. You throw out an idea, you talk about it in a discussion, they take it and run, come back; those kinds of things." Carolyn Owens

Who Are the Students?

Located 35 miles from San Diego, Ramona is a bedroom community in which many people commute to work. Most of the people are upper-middle to middle class college graduates who have opted to live a semi-rural lifestyle.

The majority of the approximately 1,950 ninth through twelfth-grade students at Ramona High School (RHS) are Anglo/ European. Hispanics, the next largest ethnic group, make up about 18% of the student body. There are a small number of African American, Filipino, and Asian students. In a program designed to be inclusive, an aide is assigned to classes, where necessary, to help the non-English speakers, who also receive assistance after school.

Advanced Placement (AP) classes, thirteen in all, are offered in language arts, history, science, math, and fine arts.

An opportunity class for at-risk students offers more individualized attention than the usual instructional situation, and the school works closely with its alternative education high school, also for at-risk students. Advancement Via Individual Determination (AVID), a program implemented seven years ago for which the school has been recognized as a model nationally, encourages at-risk students and provides tutoring and help with study skills. College students serve as mentors and role models. This program has resulted in ever increasing numbers of at-risk students going on to college. Through the Harmonium Project, a counselor is contracted to work with at-risk students in anger management. Fusion, a program run by a school counselor, extends anger management training to a wider body of students.

There are classes of severely physically disabled students who, as part of their work program, sometimes work in the library media center (LMC). The severely emotionally disabled (SED) students on campus use the LMC, especially its technology, as part of their instructional program. Carolyn works with all of these students.

Not surprisingly, given the school's location near San Diego, a former focal point of U.S. Navy activity, there is a naval ROTC program.

Ramona was one of the first ten schools in the nation selected to implement Auto Youth Educational Source (AYES), an auto shop program. Automobile dealerships in

partnership with Ramona High School provide job training and corporation-supported competitions. The teacher, Mike Jordan, brings his classes to the LMC to create a tutorial on one part of a car. He was one of four candidates for Teacher of the Year in San Diego County in 1988 and was named Automotive Teacher of the Year in 1990 and 1994.

Who Are the Staff?

Carolyn Owens is the library media teacher. She says, "One of the things I appreciate most about my job is that my role is constantly in flux, constantly changing. It satisfies my need for variety and organization, for making lists and getting things done in an orderly fashion, and it satisfies my creative bent. I can do some great projects. I'm always being challenged to learn new things. Instead of being an expert in only one subject, I need to know something about all subject areas because I am responsible for all subject areas. This job has given me a global perspective of what a school is and what is required to create a program that is best for all students."

Carolyn is involved in managing much of the school's technology. She is a member of the technology committee, which trains the staff in the use of computers. Bob Chatfield, a 20-hour employee working with her, distributes and repairs the audiovisual equipment, and, usually, either Carolyn or he provides training on the use of this equipment.

Karen Chatfield is the full-time library technician and is also responsible for textbooks. Karen Langlois is the part-time (20-hour) library technician. Parents tend to volunteer in the LMC sporadically. This year, the retired librarian from Olive Peirce Middle School is entering keywords for collective biographies into the online catalog to provide better access to individual biographees.

Generally, there are one or two eleventh and twelfth-grade student assistants per period working in the LMC.

How Do People Work Together?

"No matter how many years you are in the LMC, you always have teachers who seek you out," says Carolyn. They do that naturally; it's comfortable for them. Then you have other teachers that, no matter how many times you pound on their door, it's just not comfortable for them. Either they're unsure of themselves, or they don't think you have anything to offer. I don't think that's ever going to change, but I just keep pounding. Sometimes I think someone is never going to change, and doggoned if they don't surprise me and say, 'By the way, I want to do a project with you.'"

Carolyn feels she had an inside track when she began working as the library media teacher at RHS ten years ago. Previously, she had been a history teacher there so she already had a relationship with the people on the faculty. She immediately collaborated well with the history department because that was the department in which she had worked and with the English/language arts department because these two departments had worked closely together. She also was immediately able to collaborate with the science department.

Carolyn explains, "Collaboration is what should drive your library program. It is what drives your collection. It is what makes your library unique. Because teaching can be such an isolating profession, it is very important that the library media teacher reach out and create partnerships with other teachers, each bringing their strengths to classroom projects. My goal initially was to work collaboratively with every department on campus, and this has been achieved."

During the 1998-1999 school year, she recruited a teacher from the physical education department to collaborate with her for the first time. The teacher came back to do a weight-training project that they had talked about and for which they had gathered materials.

The key to collaboration with the math department has been technology. "Once you sneak in the door with technology, you can always bring a book with you," says Carolyn. "You always slide in the book."

"Collaboration is," according to Carolyn, "a living thing. Up until this school year, you couldn't get into the LMC without booking it three weeks in advance. This year, because of some changes in personnel, because people are reassessing, and because there is increased pressure to meet district and state content standards, the LMC is less heavily used. It's not a constant. What's amazing to me is that people you've collaborated with all along suddenly don't have as many collaborative projects because of pressures they have going on, and people you've never seen come to you, so it's constantly in flux. What's important is that people see you as someone who is open, not judgmental. Collaboration doesn't even have to be formal. You throw out an idea, you talk about it in a discussion, they take it and run, come back, those kinds of things."

(Note: For a while, because of increased pressure to meet standards and because research requires more time than some other teaching strategies, some teachers felt they didn't have time to bring their classes to the LMC. In the 2000-2001 school year, teachers were once again integrating research into their curriculum.)

Initially, Carolyn tried doing the freshman LMC orientation for English and history classes, and it wasn't very effective because it was being done out of the context of curriculum. Dissatisfied, Carolyn talked with other library media teachers to find out how they handled freshman orientation. "Working with the health classes," says Carolyn, "is an idea that I stole and then adapted. I think it's been really successful. Penny Childers, the teacher with whom I developed the project, is its strongest advocate."

The collaborative project with the health teachers serves several purposes. For the health curriculum, students are learning about drugs and about how to do research in this field. It serves as the orientation to the LMC, giving Carolyn the opportunity to instruct students on using LMC resources within the context of the curriculum. One of the reasons Carolyn likes this collaboration is that it is still evolving. She and Penny, with whom she's been collaborating for eight years, are constantly evaluating and improving the ways in which they work together.

In 1997, Carolyn was the school district teacher of the year. She now makes a point of helping others at her school apply for this recognition. "I think it is so important that teachers promote the good things they do," explains Carolyn. "Since I was one of the first applicants and there was no one to help me with the application process, I make sure that every teacher who wants my help in applying gets it. Classroom teachers don't always think of all the valuable activities and strategies they use. I remind them to include these in their applications."

Carolyn feels a personal obligation to mentor her colleagues whenever she can. San Diego County Office of Education gives workshops for school library media teachers on a quarterly basis in coordination with the San Diego Unified School District. Carolyn often shares her expertise in these workshops and at California School Library Association (CSLA) conferences. She tries always to offer something that the library media teachers can put into place immediately.

There are the beginnings of collaboration between the public library and the high school LMC. At the public library's invitation, Carolyn sat on the interview committee when their most recent librarian was hired. Lately, with new funding, the public library has initiated a program to purchase books that support the high school's curriculum. Carolyn has been working with the public librarians to build a collection that complements and extends rather than duplicates the school's collection. She knows the public library is impacted by the assignments given students so she tries to keep the librarians there informed. Often, she will email them the topics being researched. The reference librarians then identify and reserve books that supplement the resources in Ramona High School's LMC.

In What Kind of Facility Are They Working?

Built in the 1960s, the LMC is a large circular room; its curved lines are attractive and give it a free-flowing feeling. Approximately 3,700 square feet in size, it comfortably accommodates areas for circulation, student computer stations, class instruction, reference, and relaxed reading.

With What Kinds of Resources Are They Working?

District funding of LMC materials has continued over the last ten years and is currently \$5000 per school per year. The district provides an additional \$15,000 to the high school. Still, the LMC has only about 10,000 books, including 700-800 paperbacks, or about five books per student.

The LMC subscribes to 28 magazines and two newspapers. Carolyn has tailored the subscriptions to achieve a balance between academic and leisure pursuits.

Last year the Ramona High School LMC received approximately \$46,000 from special state funding. The lion's share of the money has been spent on print materials. As a result, Carolyn has been able to weed as many as 5,000 of the unused and outdated titles, some from the original LMC built 36 years ago, and begin replacing them with up-to-date titles that meet student needs.

The state money designated for LMCs and completion of the digital high school (DHS) grant application has allowed the LMC to subscribe to two new online services: *Electronic Library* a multiple resource program, and *Proquest* a full-text periodical program. With the Internet, an additional electronic encyclopedia, and another online periodical program, students have access to a variety of online resources for their research and projects. As more and more resources have become available online, the LMC has upgraded hardware to access them with sixteen new computers and a new fileserver. This will grow to twenty-two computers, which should accommodate half of an average-sized class when students come to the LMC for research. A LCD projector facilitates instruction. Sometimes, however, Carolyn provides instruction in one of the labs so that every student can have a hands-on experience.

The wiring for the school site LAN is completed and all classrooms are networked. All online resources that the LMC subscribes to are site-licensed. This allows access from any classroom at Ramona High School. At this time, every classroom has computer access to the online card catalog and all of the online subscriptions, as well as the Ramona High School LMC web page.

Other electronic resources available to students and staff include camcorders, TVs, VCRs, laser disc players, tape cassettes, filmstrip projectors, slide projectors, a digital scanner, and two digital cameras.

About four years ago, Carolyn realized some students were spending an incredible amount of time just trying to do an Internet search and find good sites. Her solution

at that time was to put together a file of valuable Internet sites and the information they contain. These are mainly sites with information to support her collaborative project on drugs. The school now has a home page, so Carolyn will gradually set up electronic links that will supplant the limited file.

What Are Some of the Library Media Center Policies?

The LMC's stated policy allows students to check out three books at a time, but Carolyn always lets them take more if they talk to her and there is a legitimate reason. Ultimately, any book on the shelf goes out, including reference on overnight loan. Carolyn states, "There is no reason to have a book if the kids can't access it." The school district is working towards facilitating a system for inter-school loans. The new system will make more efficient loans that have long been done on an informal basis.

Students are responsible for the books they check out. If students lose a book, they pay for a replacement copy.

Every year, as part of registration, students sign an acceptable use policy and receive an Internet sticker on their student ID. If students want to go online, they must show the student ID with this sticker.

As part of the digital high school program, every student must have an email address and therefore has the ability to participate in Internet relay chats (IRCs). The community felt that this open access to the Internet created a greater need for a means of protecting students. Therefore, the school district has installed Intergate, an Internet filter. Its purpose is to restrict student access to specific URLs and designated categories (e.g. sex, violence, or drugs). As Carolyn finds inappropriate sites, she can enter the URLs to close them. When students need access to restricted categorical sites in order to do research, she has the ability to permit access to specific URLs within the categories.

Previous to the installation of Intergate, there had been problems, some of them created intentionally and some accidental. "Students always push the envelope," states Carolyn. "Rather than using the Internet legitimately for research, students often were showing off by hitting the worst sites they could find. These would range from pornographic to very violent sites. Prior to the installation of Intergate, we had little control over what sites students accessed. Sophisticated students were able to erase the history of where they had gone so we felt helpless. For instance, we had to spend a great deal of time monitoring students because some were going to a site containing a cartoon that is violent and often uses vulgar language. Intergate eliminated access. Because web pages make their money through advertising and often this money is made on the basis of the number of times a page is accessed, they use URLs that are very similar to others, resulting in some inappropriate sites being accessed accidentally. For instance, I asked a student to go to Yahoo! When she typed in the address, she misspelled Yahoo as "yahhoo." One is a search directory; the other is a pornographic site. This caused great embarrassment for the student, and I wasn't too comfortable myself."

During non-class times, the LMC is open the half-hour before classes begin, lunch period, and for a half-hour after school. During these times, students are in the LMC checking their email and doing word processing. During class time, if there is a class scheduled to use the LMC, those students in classroom groups and working on class projects have priority in using the computers.

6.2

CAROLYN'S STORY

Freshmen! They are enough to send most high school teachers screaming from the room. I must admit a certain weakness and liking for the little guys! My reputation as an educator certainly was enhanced remarkably when the staff at Ramona High School (RHS) learned that not only did I successfully teach several freshmen history classes when I first came to the school, but also my previous assignment had been at the middle school level.

When I became the library media teacher at Ramona, I wanted to create a program that would give freshmen permission to feel relaxed and safe in the library, as well as let them know what resources we had available for their use as students at RHS. Thus, Freshman Orientation Plan A, was born. My first attempt at providing orientation involved the social science department. It was the department I was most familiar with, having been one of its members. I found that ninth-grade social science teachers were more than pleased to let me take their classes on a tour of the library for a day. After the first year, as I reviewed my freshman orientation process, I discovered that the only person who was getting it as far as where things were located, which resources were available for student use, and what the rules were in the library was me! I mean, if you repeat the same thing over nine or ten times, you do learn it. But the freshmen weren't getting it.

As I planned my next year, I searched for something that would engage the freshmen but allow me to achieve my goals. I found a commercial program that introduced students to specific reference books via a scavenger hunt. So Freshman Orientation Plan B was born. At this point, I decided that because the ninth-grade social science teachers teach a semester-long geography class, I needed to find another department with which to work. I turned to the English/language arts department. The English teachers accepted my invitation to participate in freshman orientation. Once again, I had students tour the library. Then I moved them into the reference area, discussed specific reference books and their purposes, and turned them loose with the scavenger hunt. Chaos! Meanwhile, the English teachers were sitting as far away as possible from their classes (that was if I was lucky enough that they didn't leave entirely), madly grading papers, and trying to ignore the noise in the reference corner. Now, I'm not saying that we had kids swinging from the fluorescent lights or that tables and chairs were being overturned (well, maybe one or two chairs), but at the end of the period I was mentally exhausted, and the students were ready for more. What I found, upon providing follow-up lessons with English classes, was that students were not applying what they had been taught about specific reference resources to the various projects on which they were working! They had certainly enjoyed themselves, but... Huhhh...heavy sigh!

Then we got computers and electronic resource programs in the library. If you wire it, **THEY WILL COME.**

Freshman Orientation Plan C! As I write this and look back on the process I went through, I now see the obvious pitfalls that I am sure have you smiling and shaking your heads. What makes my blunders more remarkable to me is the fact that I was a 15-year veteran of the teaching profession. But, I am tenacious if nothing else. To paraphrase Franklin Delano Roosevelt: Try something; 50% of the time you will be right. As I thought about how to recoup my losses and revisited my goals, I struggled with how to get students to use specific print and electronic resources, learn what was available in the library, and feel comfortable enough to visit on their own time.

I began a discussion with some of my librarian friends in the area. What were they doing for freshman orientation? What had they tried that worked? It was my good buddy, Carey Meier at Mt. Carmel High School, who told me she provided freshman orientation to the ninth-grade health classes. Have students learn about the library within the context of a classroom assignment. What a concept!

I had good rapport with Penny Childers, who taught the most health classes, and when I approached her about possibly dividing her class into two parts for a drug report/ freshman orientation project, she was open to the idea. (Of course, there are still two or three English teachers who have not forgiven me for moving freshman orientation to the health department.)

Penny wrote very specific criteria as to what information she wanted students to learn. She included a grading rubric that made a library tutorial part of the project grade.

Penny and I decided I would take 16-18 students from each of her health classes to the library for one day, introduce them to the library, and have them complete a tutorial on the electronic resources we had for their use. This allowed Penny the opportunity to work with small groups within her classroom. After two days, all the students had received instruction in using the resources, both print and electronic. During the next two days, classes came to the library and used what they had learned to complete their research for a report on drugs.

Of the three plans, Freshman Orientation Plan C has worked the best over the last several years. Our success inspired the other health teachers to want their classes to do the assignment as well. As of now, all health classes complete freshman orientation.

Each year, Penny and I discuss the results of the collaborative project and add and delete drugs from the list from which students choose. As we discuss the outcome of each project, we revise the requirements. For example, we had a discussion that revolved around our concerns regarding students just using electronic resources. How many times do you hear, "I don't need to do research in the library; I have the Internet at home?" Our way to combat this was to mandate that students meet very specific resource criteria that necessitate the use of both print and electronic formats. Students had to meet a bibliography requirement and sources of information are verified. To support this project, I have been able to find books on specific drugs that are on our drug list. Students buy into the project because they can easily find the resources they need listed in the online catalog.

If truth be told, even though the classes of the other two health teachers complete the drug report assignment, Penny and I do most of the planning, discussing, evaluating, and changing of the collaborative project. Penny is the only full-time health teacher at our school; therefore, she is the leader of the program. Most of the other health teachers only teach one or two sections of health, and often this assignment changes from year to year.

Over the years, as Penny and I have found articles in magazines, in pamphlets, and on the Internet, we have created an extensive vertical file that supplements our other resources. The types of materials we place in the drug vertical files include pamphlets, newspaper and magazine articles from publications the library does not carry, pharmacy fact sheets, and Web pages that students might not discover on their own.

This year, I created a website for student use. This keeps students focused on the assignment, while allowing them access to the Internet, as you probably know a very exciting world for most young people. The website is linked to Carey Meier's website at

Mt. Carmel High School as well as Peter Milbury's website at Chico High School. At both schools, students do drug reports. The links have allowed our students the opportunity to see that at other high schools students do drug projects too. They have also enabled our students to benefit from the excellent search skills of other library media teachers.

Am I accomplishing what I originally wanted to accomplish? Yes, but not entirely. Each year, we tweak the project, adjust the tutorial, and work to meet the students' research needs. Our team approach is probably one of the best examples of true collaboration between the library and a classroom at RHS. Do freshmen students feel welcome in the library? I believe so. This project, combined with the book talks that I do for the freshman English I classes, (yep, my peace offering to the English teachers and something I really enjoy doing) invites freshmen to use the library for both work and leisure. Do I see students applying what they learned during freshman orientation? Yes, but again it is a collaborative teaching process with other departments' support. Fortunately for RHS and me, as recipients of the digital high school funds in 1997, we now offer a computer technology class in a new computer lab. Students learn how to use electronic resources and reinforce basic research skills, which the drug report assignment also emphasizes. That is a good thing because students become aware of cross-curricular connections. Will there be a Freshman Orientation Plan D, E, whatever? Probably, but, for now, this project works nicely.

6.3

PLANNING FOR RESULTS

Carolyn Owens

The first step in planning instruction is to determine what is to be achieved, that is, what we want students to know and be able to do. This involves determining which educational standards will need to be met. Second, decisions must be made as to what is acceptable evidence of student learning. The criteria need to be shared with students so they know exactly what is expected of them. The third step, which can only realistically be accomplished after the prior decisions have been made, is to decide upon the instructional strategies to be used and the activities in which students will engage. The plan for Carolyn's lesson follows; observations regarding how standards are met are included.

Identify Desired Results

Information Literacy Standards

As Carolyn discovered, when students learn about LMC resources within the context of a classroom assignment, they have an authentic reason to learn about them: they need them to complete their assignment successfully.

Standard 1:...accesses information efficiently and effectively.

The students from each health class came to the LMC for one class period to complete a tutorial on the print and electronic resources available. To reinforce the importance of learning about these resources, the health teacher made the tutorial part of the project grade.

Students easily found the books they needed on the online catalog, because, to support the project, Carolyn had purchased books about the specific drugs that are on the list of drugs to be studied.

Students located magazine articles, pamphlets, and printouts of Internet sites in an extensive vertical file created by Carolyn and the health teacher.

Students used a website recently created by Carolyn that has links to information supporting the curriculum. Included are links to websites at other high schools. These latter links have enabled students to benefit from the excellent search skills of other library media teachers as well as Carolyn's own.

Standard 8:...practices ethical behavior in regard to information technology.

Students documented their sources in a required bibliography. Carolyn and the health teacher verified the sources of information. This encouraged students to use both print and electronic resources and also insured that students gave appropriate credit for their sources.

Health Education Standards for California Public Schools

The following are the pertinent standards from the *Health Framework for California Public Schools*. They were achieved through classroom instruction and the research assignment.

- Standard 3: ... examine the influence of tobacco, alcohol, and other drug use on performing physical tasks and making judgments.
- Standard 4: ... analyze the effects of substance abuse, including tobacco use and its impact on the family.
- Standard 6: ... analyze the effect that nutrition, prenatal care, and harmful substances such as alcohol and environmental hazards have on the health of the mother and developing fetus.
- Standard 7: ... evaluate problems associated with body image, including steroid drug use and dieting.

Determine Acceptable Evidence of Learning

In written reports students will synthesize information they have located about how drug use effects (1) the performance of physical and mental tasks, (2) family life, and (3) the health of mothers and developing fetuses. They may examine the use of steroid drugs in relation to issues of body image.

Plan Teaching and Learning Experiences

Students will need to know...

- Characteristics and effects of drugs
- Internet searching techniques
- Location skills using the online catalog
- Bibliography format

Students will need to be able to...

- Locate information
- Synthesize research
- Create a bibliography

Responsibilities for teaching and learning experiences

1. Determine what information students need to learn. (classroom teacher)
2. Create a grading rubric. (classroom teacher)
3. Explain the assignment and assign topics. (classroom teacher).
4. Create a tutorial on LMC resources. (library media teacher)
5. Team teach to guide students through the tutorial on LMC resources. (The library media teacher takes primary responsibility for whole-group instruction.) (classroom teacher and library media teacher)
6. Provide time for students to search for, evaluate, and synthesize information. (classroom teacher and library media teacher)
7. Evaluate student work. (classroom teacher)
8. Discuss project and integrate changes into the curriculum. (classroom teacher and library media teacher)

7.1

IS TECHNOLOGY THE END OR THE MEANS?

Darla Magana
Trabuco Hills High School

"Most of the students, after a two-day "picture hunt hiatus," were back on track. The research really started to pick up, and I was getting excited. I was asked by a few students to help them insert charts and tables. I was happy about that because they were showing a way of synthesizing the research. Students began to stop me as I walked by to make comments such as "Can you believe how many people are on welfare?", "How do I know if I can believe what it says here?", and, my personal favorite, "Mrs. Magana, did you know..." She was so excited by what she had learned about the status of women around the world that she proceeded to give me a rundown of all the research she had done to that point."

Darla Magana

Who Are the Students?

Trabuco Hills High School in Mission Viejo serves ninth through twelfth grades. Its approximately 2,300 students are, on the whole, from a high to middle socioeconomic background. Most of their parents have a college degree. Although only 60 students participate in the federal free or reduced-cost lunch, the school has the highest percentage of students receiving free lunches among the four high schools in the district. It also has the highest number of students enrolled in an English as a Second Language (ESL) program, about 90. It has the largest Resource Specialist Program (RSP), a special education program for students with learning disabilities, and that serves only about 50 students.

Trabuco Hills High School students are grouped into three levels, honors, middle, and workshop (low achievers). Some teachers were initially shy about bringing their workshop classes to the library media center (LMC). Darla Magana, the library media teacher, tells them, "Give yourself a break. At least there will be two teachers to the thirty students that you have." Most of them have become comfortable bringing their classes.

After the freshmen year, honors classes rarely come to the LMC. The English teachers bring in honors classes maybe once a year, social science teachers rarely. In the junior year, honors track becomes an Advanced Placement (AP) track; the teachers are so busy getting through the required curriculum that they struggle to find time to bring their classes to the LMC. It is therefore most heavily used by the students in the middle and workshop tracks.

The difference between the honors students and the workshop level students, Darla believes, is who does their homework, who spends the time. The honors students, she finds, are incredibly motivated and they understand deadlines.

Who Are the Staff?

In addition to her responsibilities as library media teacher, Darla Magana is in charge of textbooks and audiovisual equipment. Jan Jaffke, the full-time library clerk, is,

according to Darla, "an organizer extreme" and makes doing the multiplicity of jobs possible. "It's a team effort," states Darla.

After a long period without technology support staff, during which many computers fell into disrepair, Eileen Fallman has been assigned as full-time technology support. She maintains the lab adjacent to the LMC as well as the one located in the LMC and assists students in both labs. She is also in charge of maintaining and scheduling the school-wide multi-media distribution system.

How Do People Work Together?

Two of the teachers at Trabuco, Susan Berner and Davine Pirie, are close personal friends of Darla so they are especially comfortable working with her and she with them. Some of the planning for collaboration takes place in the evening because there isn't enough time available during the school day. Susan Berner, an English teacher at the school, came to Darla and said, "I've been hanging out with you, I've been hearing about the research process, and I've been hearing what you think the kids should do, and I just want to do it. Take as long as you want. Do whatever you need to do." As a result, they spent two hours late at school to plan for 17 days of team teaching. This is the first time Darla has had the luxury of so much consecutive time with one group.

Darla says, "One of the things that has probably spurred on Mrs. Berner is that I have angst about our AP students graduating and not having the information literacy skills they need to write college-level research papers. Because of not usually seeing the AP kids, I really worried about that. I think doing this kind of overarching unit will carry them through their four years here and on into college."

Darla feels that Susan is a phenomenal planner and that she has learned a great deal from her. Susan plans day-by-day instruction well in advance, helping Darla to look at the whole scope and sequence two to three weeks before they start teaching. "That's the way it should be and that's not necessarily the way I do things," confesses Darla. "It's fun to work with the best."

Davine Pirie, the Model United Nations (MUN) teacher, and Darla teach a unit on using Internet sources for research every year. Davine makes the lesson a process in which she evaluates and finds out what the students actually understand. Every year Davine and Darla tell each other what didn't work and they make changes.

There have been instances when Darla has made contacts with the nearby public libraries and with their librarians because of special projects on which students are working, but there is no ongoing collaboration. Because of the new California legislation funding public library projects involving cooperation with other agencies, the librarian at a new nearby library has approached Darla, and Darla is hoping something will come out of that.

In What Kind of Facility Are They Working?

The LMC is a spacious, high-ceilinged room with horizontal beams from which hang flags of many nations. A student photography exhibit fills one wall. Classes receive instruction in an area with 14 rectangular tables and a pull-down screen or in a computer area in which there are 23 computers and a large-screened television on which computer instruction can be projected. In addition, there are two octagons with six computers each for individual use. Eight study carrels afford privacy and quiet in the research area. The library media teacher's office has a large window affording good visibility. Darla occasionally helps out in the adjacent computer lab.

With What Kinds of Resources Are They Working?

There are about 11,000 books in the collection, fewer than five books per student. The school was built in 1985, and that is the average copyright date of the books. During the 1998 -1999 school year, Darla had some of the science teachers come in to help her weed the science section, but more weeding is needed throughout the collection.

Trabuco is a Mello Roos school, a school in an area in which there are lots of new housing developments. People buying homes in the developments pay a special tax that goes towards the schools, libraries, fire department, and other community needs. The school's share of that money went toward a computer lab, new computers throughout the school, and computer software. At the time that money was received, Darla decided to spend most of the LMC budget provided by the school district, about \$13,000, on technology and supplies rather than books. The vast majority of the students also have computers at home. As a result, they are learning that the Internet "is the end all, be all," an attitude Darla believes needs to be countered by a better book collection.

The new state money is badly needed to build the book collection. Nearly all of the state money is going towards books. The remainder is being spent to increase the number of magazine subscriptions from five to thirty. Those magazines are for fun reading, a resource that motivates students to read. Any research in periodicals the students do is from resources available on the computers. The money for 1998 - 1999 was spent primarily on building the science collection, because of the new medical science program, and on books for MUN (Model United Nations).

Much of the money for the 1999 - 2000 school year will be spent on buying the fiction students request. When Trabuco Hills High School opened, the principal's slogan was, "If you go to Trabuco, you will be an honor student," so the library media teacher at that time bought the classics. Darla explains, "The classics are wonderful, but that's all we had, nothing that was just for fun."

Next door to the LMC but separate from it is the Safari Multimedia Distribution Center, a system for dispersing videos and DVDs to classrooms, and that is the location of the video and DVD collections. Darla buys videos and DVDs only when teachers request them because the school district has a huge video collection and has an efficient system for getting them to the schools.

What Are Some of the Library Media Center Policies?

Students are required to sign the Mission Viejo School District's Internet policy. Written using legal terminology, its intent is to protect the district in a court of law; Darla needs to help students understand it.

Orange County, where Trabuco Hills High School is located, has implemented a mandatory Internet filter. Daily, students will come to Darla and say something on the order of, "I'm trying to get to my father's home page to show it to my friend and it's filtered." Darla explains, "Because filtering decision making is so far removed from the school, it's extremely difficult to get the decisions changed. And even once a request for a change is heard and is made, there is a software sweep and the requested change is undone."

Note: In January 2001, Darla became the library coordinator for Saddleback USD.

7.2

DARLA'S STORY

About five weeks before graduation, Carrie Croson, a senior year English teacher with a debate background, told me she had finished all the curriculum stuff she had to do with her seniors and was looking for a way to have a research lesson that would keep her seniors (think "senioritis") engaged. She had a sketchy idea of what she wanted. I suggested that she have the final project be a Power Point presentation. She agreed and, because there isn't enough time during the school day to co-plan, we sat down after school to organize the lesson.

Carrie wanted to give her students one more chance to do some public speaking, do research, and work on proving a thesis. As their last official high school project, she encouraged students to choose a social issue to research and create a thesis that outlined a solution.

I planned to reiterate the Internet searching techniques they were supposed to have learned during previous research projects and teach the ins and outs of Power Point. I also planned a mini-lesson on good graphic layout in the synthesis stage of research.

The first day the students came in they were told to pre-search, to find out what is available on the few topics they were thinking of pursuing. The next day, students were supposed to have solidified their choice of topics and be researching in more depth to create a thesis.

The third day, students had a full-period lesson with me in which I taught them Power Point basics. I had prepared a one-page help sheet to remind them of the buttons and menus to use for basic tasks.

The next day, I spent a short amount of time talking about the layout of slides and the use of colors, sounds, and pictures to back up or support their research. I should have prepared more for this with some good and bad examples. Although I thought I was making the point about how visuals need to support your research, the students didn't hear that. Most students went tearing back into the LMC to find pictures on the Internet to paste into their projects' slides with little regard for whether the pictures actually helped them prove their theses. They now all felt that they had to have a picture and, to a lesser degree, sound, on every slide whether it helped or not. From this experience, I learned not to tell students at the beginning of a project that they will be doing a Power Point presentation. Until after they've done most of their research, I tell them to find visuals, nothing more.

Adding to the shift of attention from proving a thesis was the thrill of learning Power Point. Students were getting so caught up in the animation and all the "cool" things that they were spending their class time in the LMC futzing with gimmicks rather than evaluating their research. Were they proving their point? Were they creating a presentation that would teach their classmates about a social ill? Were they prepared to persuade their classmates that their solution would indeed make the world a better place? No! They were too caught up in what background color they should use.

We had to rope them in. Carrie Croson took her students back into her classroom and away from the tempting Internet workstations. She re-explained that the point of the assignment was to synthesize information to support their theses. This helped most students refocus. There was still one student who swore that he could not move forward until he found a picture of a dead person. (He was doing a project on police

brutality, and he decided that any picture of a dead person would be good enough; the person didn't actually have to have been killed by a policeman.) There was also the student who insisted that a picture of every gun he could find needed to be inserted into his presentation. His project was on gun control, and his explanation was that the pictures helped people understand how many guns there were in the world.

Most of the students, after a two-day "picture hunt hiatus," were back on track. The research really started to pick up, and I was getting excited. I was asked by a few students to help them insert charts and tables. I was happy about that because they were showing a way of synthesizing the research.

Students had about five days of unstructured time in which they could move freely between researching and creating their projects. This was ample time for those students who had used the first two days of library time wisely. Students began to stop me as I walked by to make comments such as "Can you believe how many people are on welfare?", "How do I know if I can believe what it says here?", and, my personal favorite, "Mrs. Magana, did you know..." She was so excited by what she had learned about the status of women around the world that she proceeded to give me a rundown of all the research she had done to that point. Other students grappled with information literacy issues; for example, some struggled with how much text to use. They figured out among themselves whether they should write their speeches on the slides fully or say the information and just bullet some high points, a more effective technique for the medium used.

Many students looked at their classmates' products and went back to alter and improve their own content and layout. Those students who had wasted the first two days in the LMC, as well as the two who suffered from "picture persistence," saw what their classmates were producing and got sucked into the project. Those who needed to, spent extra time in the LMC to make sure that they had a project done by the date due.

By the last two days, most students wanted me to proof their final projects. I didn't get the benefit of hearing the speeches that accompanied their projects, but many students mentioned what they were going to say with each slide. One young man with whom I had been working mostly on technology issues suddenly showed up outside of class one day to ask me to look at his final product. I was floored. His topic was teenage violence. He had created a visual montage that explored music, television, peer pressure, and family life. It was a phenomenal display of research synthesis, and I was feeling pretty good about myself as a teacher when I commented on one of his research points. He had said that approximately 60% of Americans have a television. I asked how old the statistic was because it seemed low to me. He said, "Really?" and quickly changed the 60% to 90%. So much for my teaching ego. Have I taught you nothing in the past four years!" I screamed. It led to a teachable moment, and we looked up together how many people in America had televisions.

I'd like to tell you that when I went into the classroom to co-evaluate the final presentations, they blew me away. But I can't. Textbook check-in time came and I had to stop being the school library media teacher to become the school textbook queen so I could not see the final projects. Carrie Croson said they were, for the most part, very good in content and pretty good in layout. She seemed pleased with the results of our collaboration and wants to do it again next year.

7.3

PLANNING FOR RESULTS

Darla Magana

The first step in planning instruction is to determine what is to be achieved, that is, what we want students to know and be able to do. This involves determining which educational standards will need to be met. Second, decisions must be made as to what is acceptable evidence of student learning. The criteria need to be shared with students so they know exactly what is expected of them. The third step, which can only realistically be accomplished after the prior decisions have been made, is to decide upon the instructional strategies to be used and the activities in which students will engage. The plan for Darla's lesson follows; observations regarding how standards are met are included.

Identify Desired Results:

Information Literacy Standards

Standard 1: ...accesses information efficiently and effectively.

Little time needed to be spent on this because students already were experienced users of the LMC's resources. Students simply did a pre-search to find out what was available on the topics they were thinking of pursuing.

Standard 3: ...uses information accurately and creatively.

Darla demonstrated the Power Point basics. She prepared a one-page help sheet to remind students of the buttons and menus to use for basic tasks. Then she discussed the layout of slides and the use of colors, sounds, and pictures to support the students' research.

Students spent five days of unstructured time moving freely between researching and creating their projects. Some struggled with how much text to use. They figured out among themselves whether they should write their speeches on the slides fully or say the information and just bullet some high points, a more effective technique for Power Point presentations.

Standard 4: ...pursues information related to personal interests.

The students chose the social issues they wished to study.

Standard 6: ...strives for excellence in information seeking and knowledge generation.

Many students looked at their classmates' products, then improved the content and layout of their own. Students who had spent too much time on show rather than substance saw what their classmates were producing and did more thorough research. Those who needed to spend extra time in the LMC to improve and complete their projects.

Standard 7: ...recognizes the importance of information to a democratic society.

Students researched and attempted to solve contemporary social problems.

English/Language Arts Content Standards for California Public Schools

Grades Eleven and Twelve, Writing Strategies, Research and Technology
Standard 1.6: Develop presentations by using clear research questions and creative and critical research strategies.

There is clear overlap between this English/language arts standard and the information literacy standards.

Grades Eleven and Twelve, English/Language Arts Standard, Listening and Speaking Strategies, Organization and Delivery of Oral Communications
Standard 1.6: Use logical, ethical, and emotional appeals that enhance a specific tone and purpose.

Instruction enabling students to meet this standard took place in the classroom.

Standard 1.10: Evaluate when to use different kinds of effects (e.g., visual, music, sound, graphics) to create effective productions.

Darla discussed the layout of slides and the use of colors, sounds, and pictures to support the student's research. Students also learned from each other.

Determine Acceptable Evidence:

Students will give Power Point presentations that reflect the use of clear research questions and creative and critical research strategies. The presentations will use logical, ethical, and emotional appeals as well as visuals, sound, and graphics to persuade the audience.

Plan Teaching and Learning Experiences

Students will need to know...

- Internet searching techniques
- Power Point presentation techniques
- Graphical layout skills

Students will need to be able to...

- Locate information
- Orally and visually persuade
- Synthesize research to support a thesis

Responsibilities for teaching and learning experiences

1. Explain the purpose of the project. (classroom teacher)
2. Teach persuasion techniques. (classroom teacher)
3. Provide time for students to do a pre-search to find out what is available on the topics they are considering. (classroom teacher and library media teacher)
4. Review Internet searching techniques. (library media teacher)
5. Teach Power Point basics via a demonstration and a one-page help sheet. (library media teacher)
6. Discuss the layout of slides and the use of colors, sounds, and pictures to support the research. (library media teacher)
7. Provide time during which students can move freely between researching and creating their projects. (classroom teacher and library media teacher.)

8.1

INVESTIGATIONS IN THE LIBRARY

Richard Moore Bolsa Grande High School

"The art teacher brings students into the library to find advertising that shows beautiful people, because she wants the students to paint portraits. I was seeing a whole lot of Asian and Hispanic kids looking in American magazines to find beautiful models. The message that was coming across was that beauty is white. I felt a need to find magazines that reflected a different kind of beauty. The first time a cover from Transpacific wound up as a poster-sized painting of Asian beauty I was just delighted. The students...were also delighted. I found, as they continued to choose models to paint, they shifted to people who looked more like them."

Richard Moore

Who Are the Students?

"One of the fascinating things about the students at Bolsa Grande High School is the number of places they have been before coming to this school," remarks Richard Moore. "For instance, one of the students is a basketball player of Korean ethnicity, but born in Brazil. His first language is Korean, his second, Portuguese, and his third, English, which he speaks with a Texas accent."

Garden Grove is a first stopping place for many new immigrants. When they first arrive, they often live four families to a house. As family members get jobs, they progress to two families to a house, then, eventually, to one. With greater financial success, they move to Fountain Valley, Huntington Beach, and Santa Ana. 60% of the 1,600 ninth through twelfth-grade students at Bolsa Grande are Asian, mostly Vietnamese, with smaller numbers of Chinese and Koreans. 20% of the students are Hispanic, and the remainder are Anglo/Europeans, with a scattering of others. About 80% of the students participate in the federally subsidized lunch program.

"In 1992 when the riots were going on in Los Angeles, the kids here were baffled," says Richard. "When you start an ethnic or cultural club here, it's not just the kids of that group that participate, it's also those who are interested in those kids. There were as many Korean students in the Black Students Club as there were Blacks. During the riots, there were several instances of conflict between African Americans and the Korean merchants in Los Angeles neighborhoods. The students at Bolsa Grande couldn't figure out why, if they could get along, people couldn't get along in Los Angeles."

The biggest event of the year is International Week. Each day of the week is devoted to a continent and the people that live there. At the end, for a Miss International Festival, a girl is selected to head each group. She and the dancers who accompany her are dressed in native costumes. Richard comments, "At first you think, okay, this is the group, let's say from Pakistan. You ask yourself, how did we get so many kids from Pakistan? Then you're paying attention, and you notice the kids in the Pakistani group are white and African American and Asian. They've managed to find a Pakistani girl who will be Miss Pakistan, but the group is made up of a wide variety of people who want to dress up in that country's costumes."

About 40% of the ninth-grade students are in English Language Development (ELD) classes, but probably 90% of the students were in ELD classes when they first started

attending school in this country. The ELD department is as big as the English department and provides ELD social studies classes as well as English classes. The science and math departments seem to manage without an ELD program, and the students do especially well on the math portions of state tests.

Bolsa Grande has the Orange County magnet school for the visually disabled so there are many blind and partially sighted students on campus. "When I first got here, my favorite kid was Armando, a Mexican American boy with an Aztec head, long hair, and a great smile, who barely spoke English. Because of his blindness, he used a cane and a watch that, when you pushed a button, told you the time. By the end of his four years at Bolsa Grande, on Back-to-School Night, he was riding a bicycle across campus with a guy running along beside him, and he was speaking English articulately."

There are eight advanced placement (AP) classes.

Students are at the library media center (LMC) door at 7:30 a.m., waiting for it to open. To get them to leave, Richard turns out the lights at 4:00 p.m.

Who Are the Staff?

Richard Moore, the library media teacher, and Margaret Walton, the full-time library clerk, comprise the LMC staff at Bolsa Grande. There are two to three student library assistants per period who shelve books, check them in and out, and perform an assortment of other tasks. They receive intensive training at the beginning of the semester; from then on, they learn skills in context. They learn the collection as they help other students find things.

California State University Fullerton and California State University Long Beach send library science students (who are already credentialed classroom teachers) to do their fieldwork under Richard's supervision. "The students have always majored in something other than library science," says Richard. "For instance, one of them was a physical education major and another an art major. One of the things I love to have them do is go through the section of the LMC that corresponds to their major, weed the section, and suggest as many new books as books they're removing. That way I have someone with a fresh brain and knowledge of a specific subject helping me build the collection. Whenever I can borrow a brain, I do. When I need to buy books that the students will want to read, I ask them, 'What will you read?'"

What Are Richard's Other Professional Activities?

Richard actively looks for opportunities to promote school libraries. As co-chair of the California School Library Association (CSLA) Public Relations Committee, he makes sure a CSLA booth is set up at education conferences and other appropriate venues (e.g. the Los Angeles Times Festival of Books) throughout the state, manning it along with the help of other CSLA volunteers. He frequently expresses his opinions on CalibK12, CSLA's listserv, and is not averse to stirring up controversy.

Richard publishes a school library column in the California Library Association (CLA) newsletter, *California Libraries*, and occasionally writes other articles for that publication. He wants public, academic, and special librarians to know what school library media teachers are doing. His report on Legi Day, a joint effort by CSLA, CLA, and other supporters of California libraries to promote libraries to the members of California's legislature, appeared in the June 2000 *California Libraries*. It will be used as a recruitment piece to get more library media teachers to attend Legi Day in the future.

While he worked at Torrance High School in Torrance Unified School District, Richard wrote book reviews for two professional journals, *Book Report* and *Library Talk*. *Library Talk* shipped him boxes of new children's poetry books. From these, he selected the ones to write about in his poetry column. In payment he kept the books, which he then gave to his wife, Karen, who thus was able to fill her second-grade classroom with children's poetry. He had a similar arrangement with *Book Report*, except that journal sent him books appropriate for high school students, so he donated them to his school's LMC.

How Do People Work Together?

"You have to find out about the culture you're in and how it functions," states Richard. When he first arrived at Bolsa Grande, he obtained a schedule of events from a local Vietnamese newspaper, *Nguoi Viet*, and got out into the Vietnamese community. He introduced himself as the librarian at Bolsa Grande, and, through numerous conversations, discovered what the community's priorities were for its teenagers. People were delighted to see him. He asked them lots of questions about what they did, how they did it, why they did it, and how what he did could connect with what they did. The number one priority seemed to be an anti-smoking campaign. Since then, people have become more active in cultural and historical activities; sometimes the LMC is used for these kinds of community events.

Richard has learned from students that it is their older brothers and sisters rather than their parents who are involved in their education. If a student at Bolsa Grande is the oldest sibling, he or she is the one involved in the younger brothers and sisters' education.

There is a bilingual magazine in the area called *Cong Dong*. It suddenly dawned on him, as he was reading one of its articles, that parents needed information on how they could help their children with schoolwork and on how to use both the school library and the public library. He wrote an article in which he included a quotation from a Vietnamese quotation book in the school LMC. They translated the article into Vietnamese, so his first publication in this community was in Vietnamese and English.

Besides reaching out to meet the diverse cultural needs of the community, Richard has set up assignment alerts with the public library. When a classroom teacher has a group in the LMC to do an assignment, he fills out an assignment alert form on which he indicates the kinds of materials for which the students will be looking. He then takes it over to the public library and discusses it with a librarian there so he or she is ready when the students show up.

Shifting from how he works with the community as a whole to how he works with teachers and students at the school, Richard stresses that he never teaches the orientation to the LMC as a separate subject. He works with teachers ahead of time on units so that information literacy skills are incorporated into what the students are doing in the classroom. At the end of a period or the next day when the students come in, they talk about what was useful and about their process, evaluating how successful they were.

A few years ago, Tom Anderson, an English teacher, wanted some of his ELD students to do reports on states. At that time, all the books in the collection on states were 20 years old, and there was no money to buy new ones. Richard and Tom went to different Automobile Club offices and obtained travel guides for all the states. The students' assignment was to plan a three-day trip either just in one state or from one state to another. They had to decide all the places they were going to visit, the history behind those places, and why they were going there. They had to decide what roads they were going to travel and create a budget for the trip. "It wound up being a lot of fun," says Richard, "and it was a perfect kind of assignment for an ELD class, because

the students learned the geography of the United States. Now that I have current state books, I'm still keeping the travel guides because it's a marvelous lesson."

In What Kind of Facility Are They Working?

As visitors enter through the wide glass doors leading into the LMC, they see student artwork everywhere. "As soon as I begin working in a library, I get in touch with the art department," says Richard. "I decorate the library with student work so they feel as though it's their place and it brightens the place up."

The 4,000 square foot LMC is divided into two class-size areas containing standard library tables. Another smaller area for individual and small group work contains three octagonal tables, student computer stations, and a card catalog. Adjacent to the LMC is a conference room and an office.

With What Kinds of Resources Are They Working?

Richard says, "In the past, the lack of resources made for a lot of unsuccessful experiences. When I first arrived at the school, I could tell by looking at the collection that the science department used the library a lot and the English and social studies departments did not."

There are approximately 10,000 books in the collection, about six books per student. Richard has done a great deal of weeding, some of it, as previously mentioned, with the assistance of library science students doing their field work with him. He removed about half of the books in the fiction section during the past year. He was working his way through the nonfiction and expected to remove about half of that. The shelves had been packed with materials, most of which had been purchased in the late 1960s and early 1970s and didn't support the current curriculum.

Bolsa Grande's LMC has received an average of \$2,600 in federal ESEA funding per school year. The funding from Garden Grove Unified School District has averaged about \$2,000 per year. That means that the total money for the year for both magazines and books had been, until the 1998-1999 school year, under \$5,000. Now Bolsa Grande is receiving about \$40,000 a year in special state funding for school LMCs, a huge increase. 25% of the state funding is being spent on new equipment and 75 % on books.

"Over the past few years, I've been able to get a few of the English and social studies teachers to use the library," says Richard. "They bring their classes for orientation, and I keep working on getting them back in for more experiences. As the collection starts to build as a result of the new state money for school libraries, teachers and students find a lot more of the resources they need."

"As faculty changes, the collection needs to change," notes Richard. "For instance, one teacher of a government class built her whole curriculum around U.S. Supreme Court cases. We have an extensive collection that supports that curriculum. The day she retired, that collection stopped being used, so now I need to build another collection for somebody else."

There will be a collection of audio CDs to support the music curriculum. "A music teacher, Jim Keltner, does a really good job of having students research biographies of composers," reports Richard. "We've gotten good reference materials to support that."

The art teacher, Arlene Willis, brings students into the LMC frequently, so Richard has built up the art collection. Students come in to study specific artists. A video collection is just being started, primarily to support the art curriculum. Arlene will use them in the classroom, and students will be able to check them out. "She is just

astonishing, says Richard. "At the Laguna Art Festival, a special section is set aside for student work. In the high school section, the award winners are often her students."

When Richard came to Bolsa Grande, there was already a small collection of books in languages other than English, mainly in Vietnamese. The books are for the enjoyment of those who want to pursue reading in their primary language, so he involves the students in the selection of books. They usually choose fiction. Poetry is also very popular.

The LMC has a lot of paperback fiction. Richard has added many paperback bookracks to prominently display the paperbacks, thus increasing circulation.

About 50 percent of the approximately 60 magazines to which the LMC subscribes are for research and 50 percent for recreational reading. Richard intends to increase the number of subscriptions. Magazines are kept for five years. The periodical databases to which the school plans to subscribe will go back further. "It's always been important to me to have hard copy of magazines and newspapers because the students have no idea of the difference, for example, between *Saint Louis Post Dispatch* and *The New Republic*. Students need to see them and discover the difference between a newspaper, a peer-reviewed journal, and a news weekly." The LMC has subscriptions to three newspapers: *Los Angeles Times*, *Orange County Register*, and *Nguoi Viet*. In the 2000-2001 school year, the *Wall Street Journal* and the *New York Times* will be added.

Richard says, "The art teacher brings students into the library to find advertising that shows beautiful people, because she wants the students to paint portraits. They use a stippling technique and turn ads into poster-size portraits that are just beautiful. When I first started working here, I was seeing a whole lot of Asian and Hispanic kids looking in American magazines to find beautiful models. The message that was coming across was that beauty is white. I felt a need to find magazines that reflected a different kind of beauty. The two that I immediately found were *Transpacific* and *Face*. Since then, I've found probably another dozen. The first time a cover from *Transpacific* wound up as a poster-sized painting of Asian beauty I was just delighted. The students took to the magazines and were also delighted. I found, as they continued to choose models to paint, they shifted to people who looked more like them."

Richard keeps looking for materials that meet the needs of the visually disabled and passes along any information he finds. There are some large-print materials for partially sighted students in the LMC. The Braille collection, however, is housed in a classroom.

Bolsa Grande is in its preliminary year as a digital high school so the faculty is at the planning stage. Prior to that money coming, the whole school had been wired and a computer, television, and VCR were put in every classroom. This has meant that there is a growing number of people on the faculty who are conversant with new technology.

In the LMC, there is a bank of three student computer stations, all linked to the Internet. Three more student computer stations have been purchased, and Richard expects to purchase six more. He feels the facility will only accommodate 12 computer stations. He expects the on-line catalog to be up and running in September 2000. "The biggest challenge is getting full-time technical support," says Richard. "Two half-time people, both college students, provide technical support to the whole school. That's probably the biggest piece that we have to accomplish, convincing the district that full-time technical support personnel are a high priority."

"I haven't connected any of the computers to a printer," explains Richard. "I just didn't want to get into the publishing business. It's so easy to push a button and print out 400 pages of some document." The students understand that the computers are primarily research stations. As part of the LMC orientation, he's taught students

how to open their own email accounts. They copy from the Internet the materials they find useful and their locations so they can document where they got them. Then they put them into an email message that they send to themselves. They are expected to open the email on a computer elsewhere that is linked to a printer. Then they can do the formatting, the reading, and the analysis of the information to see if it's what they need for the project on which they're working. There is a computer lab available for students who don't have access to a computer at home.

Richard feels it is important to help students understand the relative value of print and technology as sources of information. He explains, "Magazines, books, and newspapers involve technology. It's only because something is new that we are enchanted with some of the things that it can do. Once, a student was looking up information about U. S. history. I watched him as he tried to find information on the Internet. He was frustrated because he was finding paragraph summaries but nothing in depth. I walked over to a shelf, pulled a book off that contained exactly what he was looking for, and put it in his hands. He thumbed through it. As he got up out of his chair, he said, 'Cool, a portable website.' We need to readjust our concept of what technology is and in what form it is most useful."

What Are Some of the Library Media Center Policies?

Richard's emphasis is on educating students to take responsibility for using computers appropriately. Students come into the LMC before school, during lunch, and after school to use the computers for a whole variety of purposes. They do lots of email. There is an acceptable use policy in place that deals with cautions about things like chat rooms. Only a handful of parents haven't signed it. Student IDs contain an indication as to whether students are allowed to use the Internet.

"I've discovered that, for some of the school's smaller ethnic populations, their only way to expand their connections with others like themselves is through email and chat rooms. I'll come by and see somebody talking in, for instance, a Persian chat room. The Persian girls use the computers a lot; often at lunchtime girls will occupy the whole bank of three computers. Some of the Samoan girls are crazy about email. Boys are constantly downloading instructions for on-line games.

Richard has an insightful perspective regarding concerns about students' appropriate use of materials on the Internet. He suggests, "There are a couple of things that you can do. One of them is just turning the computer screens so they face the wall. That way, someone walking by isn't likely to see what is on the screens. We're very used to putting telephones into booths so that the person inside the telephone booth has some privacy. It would never dawn on us to open the door and find out what the person is talking about. Yet we place computer terminals, which can be used in just as personal a way, out in the middle of the floor, walk behind them, look over peoples' shoulders, and see what they're doing. On occasion, probably four times in the past two years, a student has come to me and said that he's offended by whatever is on the screen. My first action is to say to that student, 'There are three problems. Number one is that you're eavesdropping on somebody's private activity. Number two, and I'll take a look at it, is that they may be doing something that's not appropriate for a public terminal. Number three, what the student is looking at may be perfectly appropriate given why he is looking at it.' But I hope to have a little more privacy for some of the terminals here."

The district has experimented with filters. It received so many outraged phone calls from all over the district that the effort seems to have been discontinued. Richard is not encountering sites that have been blocked.

Note: In September 2000, Richard became the library media teacher at Sage Hill School, a new, private, independent school in Newport Beach.

8.2

RICHARD'S STORY

I actively recruit student teachers to do collaborative lessons with me in the library. I want to introduce newcomers to resource-based learning before they mentally close the door and think that teaching consists of lectures and textbooks. They too often see that modeled and think success lies in following that model. I give them another model. At the beginning of the school year, I introduced myself to Dean Xiong, a student teacher, and I kept after him until he agreed to work with me.

As an introduction to the library and to the research process in the field of history, Mr. Xiong and I used a project that required his eleventh-grade United States history students to learn about the methods and activities of the CIA during the Cold War and to imitate them. We wanted to make students more comfortable with the resources in the library and to instill a sense of the importance of research beyond the school setting. Knowing that the steps of the research process are more likely to be retained when used within the context of a classroom lesson, our goal was to create a project that integrated research into his teaching. We sat down together to discuss the objectives, teaching methods, and evaluation process. He then introduced the project in the classroom, describing the process and the desired results.

In the library, I gave the students a quick introduction, including a reminder of sources and methods of locating information, providing specific examples, for instance, *Readers' Guide to Periodical Literature* encyclopedias, *Current Biography*, and history books. I've learned that an extensive lesson on research skills at the beginning of a unit is out of context and is mostly ignored so from that point on, instruction was given individually as students researched their topics. Getting them started quickly lets them see why they are searching and shows them who among them is being successful and how.

We followed up near the end of each period with discussions about the methods used to locate information, the kinds of information located, and the value of what had been found. This kind of evaluation was necessarily longer the first day and shorter on following days as student skills improved, but was an integral part of the process in order to reinforce the success and value of methods and sources used. Discussion led to the comparative evaluation of different types of sources, e.g., encyclopedias vs. commercial websites and historical fiction vs. memoir. Often students were pleased with the photos they found on the Internet but equally pleased to find more complete historical information in books.

Initial student reactions included the usual pattern of exploring the minimum requirements, dragging feet on beginning, and asking for approval of minimum work, for instance photocopies vs. notes and structured writing. The evaluation at the end of each period reinforced the idea that there were students successfully finding the required information and creatively presenting the results. Successful students shared their methods with others in such a way as to encourage everyone to complete the assignment. The inclusion of details such as a photograph and cause of death added reality that provided the aha! of discovery and led to the sharing of detection methods. One vivid example was the discovery of photographs of Pol Pot's corpse in the April 28, 1998 issues of *Newsweek* and *Time*. The kids were pleased that "he got his" (These are primarily Vietnamese kids). The photographs created a desire to reconstruct the path that led to his death, so they looked through history books to find more complete information.

This project engaged the kids because it involved essential questions about government and privacy. It led them to ponder exactly the kinds of moral decisions that were pondered in the 1950s. We put them in the position of destroying careers with allegations and innuendo, and the kids responded in many instances with a defense of privacy.

While the collaboration went well, it was evident that too many resources were being introduced at one time. It was done late in the school year so many students had discovered resources through other classes. Nevertheless, the whole class could have benefited from a couple of smaller more focused projects earlier in the year and a lesson on web searching in the computer lab.

8.3

PLANNING FOR RESULTS

Richard Moore

The first step in planning instruction is to determine what is to be achieved, that is, what we want students to know and be able to do. This involves determining which educational standards will need to be met. Second, decisions must be made as to what is acceptable evidence of student learning. The criteria need to be shared with students so they know exactly what is expected of them. The third step, which can only realistically be accomplished after the prior decisions have been made, is to decide upon the instructional strategies to be used and the activities in which students will engage. The plan for Richard's lesson follows; observations regarding how standards are met are included.

Identify Desired Results

Information Literacy Standards

Standard 1:...accesses information efficiently and effectively.

Before the students began researching information, Richard gave them a quick introduction that included a reminder of sources and methods of locating information. From that point on, instruction was given individually as needed.

Standard 2:...evaluates information critically and competently.

At the end of each period in the LMC, Richard discussed with the students the methods they had used to locate information, the kinds of information located, and the value of what they had found. This kind of evaluation was necessarily longer the first day and shorter on following days as student skills improved, but was an integral part of the process in order to reinforce the success and value of methods and sources used. Discussion led to the comparative evaluation of different types of sources, e.g., encyclopedias vs. commercial websites and historical fiction vs. memoir. Often, students were pleased with the photos they found on the Internet but equally pleased to find more complete historical information in books.

Standard 3:...uses information accurately and creatively.

The students learned about and imitated the methods and activities of the CIA during the Cold War.

Standard 7:...recognizes the importance of information to a democratic society.

This project involved essential questions about government and privacy. Students played the role of CIA agents in a position to destroy careers with allegations and innuendo. They responded in many instances with a defense of privacy.

Standard 8: ...practices ethical behavior in regard to information and information technology.

Each student created a bibliography in which he or she cited a minimum of three sources.

History-Social Science Content Standards for California Public Schools

Standard 11.9.3: Trace the origins and geopolitical consequences (foreign and domestic) of the Cold War and containment policy...

Students learned about and imitated the methods and activities of the CIA during the Cold War. In doing so, they considered essential questions about privacy vs. a government's need to protect its citizens. They became aware of how careers were sometimes destroyed by allegations and innuendo.

Determine Acceptable Evidence

Students will gather information and create a mock CIA secret file on an individual investigated by the CIA during the Cold War. The file will contain a CIA report and a minimum one-page summary of the person's role in the Cold War, the person's significance in history, and how the person is viewed today. Additionally, students will submit a bibliography citing a minimum of three sources. Work will be neat, complete, creative, and accurate.

Plan Learning Experiences and Instruction

Students will need to know...

- Location skills
- Bibliography format

Students will need to be able to...

- Locate information
- Evaluate information
- Make decisions regarding privacy rights vs. national security

Responsibilities for teaching and learning experiences

1. Determine the objectives, teaching methods, and evaluation process. (classroom teacher and library media teacher)
2. Introduce the project, describe the process, and explain the desired results. (classroom teacher)
3. Review resources and methods of locating information (library media teacher)
4. Provide individual assistance as needed. (classroom teacher and library media teacher)
5. Lead discussions that guide students in evaluating research methods and the kinds of information located. (classroom teacher and library media teacher)
6. Evaluate the project. (classroom teacher)

STUDENT WORKSHEET CIA REPORT

Background premise:

Under the guidance of the National Security Council (NSC), the Central Intelligence Agency (CIA) was very active in gathering information on individuals and groups deemed dangerous to the nation's security and interests abroad. The CIA became a military and political tool used to win friends and eliminate foes. Spying became a tradition.

Objective:

To learn about the methods and activities of the CIA during the Cold War by imitating them.

Method:

Pretend you are now working for the CIA combating espionage, sabotage, foreign intelligence, and pro-Soviet government sympathizers. Your assignment is to gather information and create a secret file on one of the individuals from the given list in order to assure the security of the United States government.

Requirements:

1. File folder designed as a Top Secret CIA File (be creative).
2. CIA Report completely filled out, typed or printed in ink.
3. Significance page, typed, minimum one page. This should include:
 - a) a summary of the person's role in the Cold War,
 - b) the person's significance in history, and
 - c) how the person is viewed today by the US government and the American people or by the people and government where the person is from.
4. Bibliography page. Cite a minimum of three sources:
 - a) books,
 - b) newspaper articles, and
 - c) Internet sites.

Steps to completion:

1. Choose a person from the Cold War Era (1945-1990).
(Sign up for the name of the subject you chose with your name as the CIA agent responsible for collecting data on the individual.)
2. Work is to be done individually.
3. Follow all directions on the CIA Report form and this handout.
4. Due date: _____ (No late assignments)

Guidelines:

Neatness, completion, creativity, punctuality, and accuracy.

9.1

A GEM OF A LESSON

Ann Mckechnie Santa Monica High School

"All ninth-grade English and science classes are invited to the library for an introductory orientation. Since we do not like to teach skills in isolation, I collaborate with teachers on a mini-research project to follow orientation; students then have an opportunity to use the research skills they have learned. Physical science teacher Ms. Pam Latham and I decided that we would have her students research their own birthstones for the mini-research project.

The most reluctant students could not resist doing this project. Seeing the beautiful, sparkling pictures of their birthstones on the monitors was just too compelling. Several students from other cultures were surprised to learn that they even had birthstones. What a fun thing to find out about yourself!"
Ann McKechnie

Who Are the Students?

In existence for 109 years, Santa Monica High School (nicknamed Samohi) is located on a 33-acre campus in the city of Santa Monica. Newsweek Magazine (March 13, 2000) lists it as one of the top 500 high schools in the nation. That list ranked schools according to how well they prepare students for college-level course work through Advanced Placement classes and other criteria. Compared with 25,000 high schools across the country, Santa Monica High School ranked 357th. 88% of the 1999 graduating class are pursuing post-secondary studies; based on projections from past figures, 60% will attend four-year colleges or universities.

The school offers multiple sections of 15 different advanced placement (AP) and honors classes and a Gifted and Talented (GATE) program. It provides a range of Regional Occupational Program (ROP) career preparation and vocational courses. Dual credit classes are offered in cooperation with Santa Monica College, and multiple internships are available with local businesses and agencies.

The student body of 3,100 plus students represents a diverse ethnic and socio-economic community composed of 46% Caucasian (European and Middle Eastern), 34% Latino; 12% African American; and 8% Asian. The range of students includes those of multi-generational American descent; others are first generation American citizens. The families of students range from affluent to poor. Twenty-three percent of the student body participates in the federal free or reduced-cost lunch program.

There is a strong English Language Development (ELD) program for the many students whose native language is not English. They are mostly Spanish speaking, but there are also a large group of Russian students and some Ethiopian, Korean, and Vietnamese students. When they complete the ELD program, they go into sheltered English, then are mainstreamed. The school library media center (LMC), William S. Mortensen Library, has many materials for them. "We have developed a collection of books in Russian because Russian-speaking students requested it, and they are reading them like crazy. We're really happy about that," says Ann. The number of books in Spanish more than quadrupled during the 1999 - 2000 school year. "That's the section that's always out of order because students use it so much. Bill Gates

came out with a search engine called T1 www.t1mfn.com which is all in Spanish and the students are wild about it."

There is a program for teenage mothers in which they can attend classes and get extra tutoring while their babies are taken care of on campus. The LMC has lots of books on teenage parenting.

As with all high schools in the area of the University of California, Los Angeles (UCLA), after the library media teacher attends an orientation, the AP students get library cards for UCLA and use the library there in addition to the one at their home school.

Who Are the Staff?

Santa Monica High School ranked higher than 91% of high schools in the county for the number of teachers who have earned college master's degrees or higher. There is a balance of younger and older teachers. The ethnic composition of the faculty is 7% African American, 5% Asian, 16% Latino, and 72% Anglo.

The Santa Monica Unified School District Board of Education stipulates that the William S. Mortensen Library will have two fully credentialed library media teachers. (Prior to Proposition 13, a measure that greatly reduced property taxes in California, the Board stipulated three.) Ann McKechnie began working there in 1994 with Mary Purucker, who has since retired. Sherry Delp, a credentialed classroom teacher from another state, is working as a substitute in the LMC while she obtains a clear California teaching credential. Next, she will work on a library media teacher credential. She hopes to become a permanent library media teacher at Santa Monica High School.

Ann is a strong advocate for school libraries. "All of my time outside of my regular job as a library media teacher is spent on committees," Ann reports. "If I'm not on these committees, I obtain less support for the LMC program, and that means the students lose out." There is a district advisory committee (DAC) for every curricular area. Ann serves on the DAC technology committee as well as the school-site technology committee. She is a member of the department chairs committee, the school-site union committee, the district union representative assembly, and the digital high school committee. "I just have to be," says Ann. "I missed a few meetings of the digital high school committee. When I said a couple of months ago that I didn't want the library to become a lab, they took that to mean I didn't want any new computers. At one of the meetings I missed, they voted not to give the library any more. I then went to a meeting and explained we needed 18 new computers. They changed their vote, but if I hadn't been there I wouldn't have gotten what we needed."

A monthly newsletter is one of the tools Ann uses to promote the school LMC and its resources. She also uses her writing skills to reach beyond the immediate school community. For example, when the school board was considering cuts to the LMC budget, she wrote a letter of protest that was published in the Los Angeles Times (Jan. 20, 2000).

Lohren Price is one of two library assistants. He works 40 hours a week. Jana Emhardt, the other library assistant, works 30 hours a week.

Student library technicians are required to go through an interview process and sign a contract. "It's the only teaching assistant position at the school for which students get a letter grade," reports Ann. We take the position very seriously, and they are working the whole time. For some it's been a truly valuable experience. We have one student, for instance, who came to us from Vietnam speaking no English, but he knew his numbers. He was a whiz at shelving books. While working here, he discovered books on architecture and decided he would like to become an architect so now he is

majoring in architecture at Otis Institute." There are just three student library technicians, each working a different period, so during three of the six periods there aren't any. Ann would like to have more.

In What Kind of Facility Are They Working?

The William S. Mortensen Library is a large, modern, rectangular room with four high narrow windows. In the teaching area, there are round wooden tables and two round banks of student computer stations for research. Freestanding stacks are at each end of the room. Shelves of reference books line one wall and continue in freestanding shelves. An area for individual and small group use contains study carrels and more round tables. Four computers near one group of stacks are used mainly for production. The library media teachers' work area has a large window allowing for good visibility into the LMC. An adjoining room has tables arranged for discussions, a screen, and a white board.

The LMC is open from 7:00 a.m. to 5:00 p.m. Monday through Thursday and from 7:00 a.m. to 4:00 p.m. on Friday. There is always a certificated person on hand to assist students.

With What Kinds of Resources Are They Working?

There are approximately 50,000 books in the LMC collection, about 16 books per student. A lot of time has been spent weeding, especially in preparation for the state grant for school LMCs, and the collection is up to date. Two new sets of shelves were added to accommodate the new reference books. Ann says, "A couple of years ago, on any given day, an average of 500 books a day were checked out. A couple of months ago, it was 700. Now it's just under 1,000. I think it's because of the state monies and the books we've been able to buy. They look so attractive and they're so compelling; the kids are checking them out like crazy. Also, the teachers and the principal, Dr. Sylvia Rousseau, are really emphasizing literacy and that has a lot to do with the increase in circulation."

In March 2000, the District cut the regular school LMC budget for the 2000-2001 school year by \$8,000. Ann wrote to everyone concerned. She was successful in convincing the District to return the \$8,000 to the school LMC budget.

The GATE program gives the LMC a grant each year for Gale Net, a source of literary criticism, biographies, reading guidance, and more.

There are 12 student computer stations, two circles of six, with everything on them for doing research: Internet, Proquest, Newsbank, Newswatch, and lots of other online and CD-ROM programs. Four other student computer stations are for production with word processing software, Adobe Photo Shop, Publisher, Power Point, and color printers and scanners. As a result of the digital high school grant, the LMC will receive an additional circle of six computers. All classrooms will be linked to the LMC. Ann provides the workshops for teachers, required by the grant, on using computers and integrating technology into the curriculum.

Epixtech is the online catalog.

The LMC subscribes to about 25 magazines. Even though magazine articles are available online, Ann feels the paper copies are needed because sometimes students want articles exactly as they appear in a magazine, with all the graphics. The only newspaper to which the LMC subscribes is the Los Angeles Times.

The departments prefer to keep their own video collections.

9.2

ANN'S STORY

All ninth-grade English and science classes are invited to the LMC for an introductory orientation. Since we do not like to teach skills in isolation, I collaborate with teachers on a mini-research project to follow orientation; students then have an opportunity to use the research skills they have learned.

Physical science teacher Ms. Pam Latham and I decided that we would have her students research their own birthstones for the mini-research project. She worked out the specifics and criteria. This project turned out to be a lot of fun because it's personal. It's like research practice where I have students find events in history that occurred on their birthdays.

Ms. Latham's students had been working on crystals and had made crystals in petri dishes from different types of salts. They had also created three-dimensional models of six crystal designs. She thought it would be fun and worthwhile if students researched the crystallization aspects of their birthstones. She wanted them to discover not only the structure, formula, and mineral classification of their stones, but also where their stones are mined, how they're used, how they're priced, and more.

I found several great websites on gemstones and some good reference books on rocks and minerals, as well as the *Encyclopedia of Science and Technology* and the *Macmillan Encyclopedia of Earth Sciences*

One of my goals was for the students to discover which kinds of information are found more readily in print and which electronically. We asked them to find information from both books and online resources. For example, to find a particular birthstone and see its beauty, they discovered that it's best to look at a website. But to find accurate, scientific, detailed information on structure and chemical formula, it's often quicker and easier to use a book.

We looked at the standards for physical science and earth science as well as those for the library. We chose to use the National Science Standards related to understanding scientific inquiry, properties and changes in matter, and science and technology in society.

For the library standards, students would access, evaluate, and use information from print, media, electronic and online resources.

Ms. Latham wrote up the assignment sheet "Birthstone Project," with these standards and our own goals in mind. The end result was to be a poster reflecting the guidelines included on the assignment sheet. Each student was to include an interview of a jeweler about his or her birthstone. Posters were to be shared by students in class presentations.

I used a LCD projector to show our Power Point presentation on LMC materials. I also showed a couple of slides listing appropriate website addresses and reference books for information on gemstones. To teach how to access various search engines and online programs such as Discovering Science, I connected a computer to the projector and simply demonstrated so that all could see on the huge monitor.

As the students conducted their research, I employed what a colleague calls "knee-to-knee teaching," sitting down with a student at a computer and having him/her search

in different programs as I guide. It's important to be patient and allow the student, rather than the teacher, to manipulate the keyboard and mouse.

I found that I was frequently explaining the use of an index; many students did not know that numbers in bold refer to volume, while others refer to page number. Only a few students knew where to look for the index of a book or set.

While I was using the LCD projector, I should also have showed them the difference between subject and keyword searches in the PAC (Public Access Catalog); several students could not locate books because they were looking under subject instead of keyword.

If we had more time I would ask students to evaluate websites. We want students to examine authorities, check for accuracy, and, in other words, to think critically about the information they find. For example, one student found a site from a jewelry store; some information was incorrect and there were lots of misspellings. When we have more time, I ask classes to evaluate sites according to a list of "Evaluative Criteria of a Good Web Site."

I visited Ms. Latham's classroom to see the students' posters; I missed their presentations. Ms. Latham and I met after the poster presentations to assess the project. Even though we had discussed interview techniques and provided suggestions of jewelry stores to visit, some students had obviously made up their interviews with jewelers. We saw that several students simply printed information from the Internet and pasted it on their posters. They did not write in their own words. As a librarian, I need to emphasize more that information on a website is the source of research but not the end result.

However, most of the posters reflected a lot of care and pride in the work. The most reluctant students could not resist doing this project. Seeing the beautiful sparkling pictures of their birthstones on the monitors was just too compelling. Several students from other cultures were surprised to learn that they even had birthstones. What a fun thing to find out about yourself!

9.3

PLANNING FOR RESULTS

Ann McKechnie

The first step in planning instruction is to determine what is to be achieved, that is, what we want students to know and be able to do. This involves determining which educational standards will need to be met. Second, decisions must be made as to what is acceptable evidence of student learning. The criteria need to be shared with students so they know exactly what is expected of them. The third step, which can only realistically be accomplished after the prior decisions have been made, is to decide upon the instructional strategies to be used and the activities in which students will engage. The plan for Ann's lesson follows; observations regarding how standards are met are included.

Identify Desired Results

Information Literacy Standards

Standard 1: ... accesses information efficiently and effectively.

To facilitate access to information, Ann located several websites on gemstones and reference books on rocks and minerals, as well as the *Encyclopedia of Science and Technology* and the *Macmillan Encyclopedia of Earth Sciences*. She created a Power Point presentation to share this information with students. She also demonstrated how to access various search engines and online programs.

Students needed to learn which kinds of information are found more readily in print and which electronically. They discovered, for example, that to find a particular birthstone and see its beauty, it's best to look at a website. But to find accurate, scientific, detailed information on structure and chemical formula, it's often quicker and easier to use a book.

Only a few students knew where to look for the index of a book or set. Many students did not know that in indexes for sets of books numbers in bold refer to the volumes, while the others refer to page numbers. Ann worked individually with students needing help using indexes.

Standard 4: ...pursues information related to personal interests.

This was obviously compelling for students. Ann confirms that even the most reluctant students could not resist doing this project when they saw the beautiful sparkling pictures of their birthstones on the monitors. Several students from other cultures were surprised to learn that they even had birthstones.

National Science Standards

In the other instructional designs I looked at California's curricular standards since those are the criteria for which California's teachers are held accountable. Since Ann and the classroom teacher used the national science standards as their point of reference, I do, too.

- A. Science as Inquiry
 - 2. Understanding scientific inquiry
- B. Physical Science
 - 1. Properties and changes in matter

In the classroom, students studied about crystals and made crystals in petri dishes from different types of salts. They also created three-dimensional models of six crystal designs. In the LMC, students researched the crystallization aspects of their birthstones. They discovered the structure, formula, and mineral classification of their stones.

- F. Science in personal and social perspective
 - 5. Science and technology in society

The students researched information about where their birthstones are mined, how they're used, and how they're priced.

Determine Acceptable Evidence of Learning

Students will give an oral presentation and create a poster that demonstrate they have used scientific inquiry, research in print and non-print materials, and interviews to develop an understanding of how their birthstone is formed and the value of their birthstone to society.

Plan Teaching and Learning Experiences

Students will need to know...

- Information about their birthstones
- Internet searching techniques
- Location aides in reference books, e.g., indexes
- Interview techniques

Students will need to be able to...

- Locate information
- Evaluate appropriateness of books vs. online sources
- Synthesize research
- Use appropriate interview techniques
- Create an effective oral and visual presentation

Responsibilities for teaching and learning experiences

1. Design the assignment. (classroom teacher)
2. Design the rubric. (classroom teacher)
3. Identify useful resources. (library media teacher)
4. Teach the information literacy skills. (library media teacher)
5. Provide time for students to search for, evaluate, synthesize, and present information. (classroom teacher and library media teacher)
6. Evaluate the oral presentations. (classroom teacher)
7. Evaluate the posters. (classroom teacher and library media teacher)

10.1

COLLABORATION AND TECHNOLOGY ARE KEYS TO SUCCESS

Peter Milbury
Chico High School

"I look at a teacher's comfort level and what he or she is going to need. All the typical interview techniques come into play. I look at the level of the students and their familiarity with our library and with technology; then I try to come up with a plan to make sure they're successful in here. Because I have two full-time support staff, I have a lot of time to do what I'm supposed to be doing, and that is collaborating with teachers and meeting their needs."

Peter Milbury

Who Are the Students?

Established in 1902, Chico High School is the oldest of the seven secondary schools in the Chico Unified School District. In 1996, it was designated a California Distinguished School by the State Department of Education. In 1989, it was one of only 107 public high schools to be named a National Blue Ribbon School by the U.S. Department of Education. In 1998, it was again named a National Blue Ribbon School, one of only four schools in California to be recognized for a second time. In the same year, the Western Association of Schools and Colleges (WASC) accredited Chico High School for a six-year term. It was the first high school in northern California to be awarded a federal Small Communities Learning Grant.

Located in downtown Chico, adjacent to the California State University, Chico (CSUC) campus, Chico High School serves over 1,960 students. Approximately 69% of the student body is European/Anglo; 16%, Hispanic; 9%, Asian/Pacific Islander; 3%, African American; 2%, American Indian/Alaskan Native, and less than 1%, Filipino or other. Fewer than 20% of the students receive federally subsidized lunches.

Students enrolling at Chico High School select from a variety of educational programs. The traditional broad-scope program includes nine advanced placement (AP) courses, two honors programs in mathematics and English, an English Language Learners (ELL) program, sheltered English classes for limited and non-English speaking students, and Spanish for Native Speakers courses. Within this program, the school offers a state-recognized agriculture program that provides students the option of earning math, science, and fine arts credits in a variety of agriculture classes.

Chico High School offers students two alternatives to its traditional program: the Academy of Communications and Technology (ACT) and Chico High West (CHW). ACT is a school-to-career, tech prep academy that is computer oriented. The curriculum emphasizes hands-on activities that teach students how to apply their knowledge. CHW's program, based on the Coalition of Essential Schools model, stresses critical thinking and problem solving. Its curriculum is interdisciplinary and team taught and emphasizes academic performance.

Five Resource Specialist Program (RSP) teachers and two Special Day Class (SDC) teachers support students with special educational needs. Numerous programs are available to meet the needs of at-risk students. In order to create a more personalized

environment, three teams comprised of assistant principals, counselors, attendance clerks, and a bilingual parent liaison, monitor the progress of each student.

Chico High School's programs reach beyond the school site. Members of its faculty and student body participate in the Chico Unified School District's Service Learning Program, which involves 100 district teachers, approximately 2,500 students K-12, and a variety of community partners. At the school, for example, a service learning coordinator, a recipient of a district grant for this purpose, is released part time from classroom teaching responsibilities to arrange for Chico High School students to work with elementary and middle school students on projects.

Nearly 150 students attend courses offered at CSUC and Butte College through the High School Scholars and Butte College Connection programs. They may opt to receive either high school or college credit for these courses. They also may take advantage of site-based courses offering concurrent college credit.

Who Are the Staff?

Peter Milbury has been the library media teacher at Chico High School for six years. He works with one full-time assistant and two part-time assistants. Candy Simpson, the full-time library media assistant, is most frequently at the circulation desk. Betty Hale, a part-time library computer assistant, works in the morning and Leslie Keller, a part-time computer/video assistant, works in the afternoon. Their desk is in an area encircled by Macintoshes and is across the room from the circulation desk. At all times, the adult staff has an easy view of most of the computer screens and can see who might need help. The assistants, in between doing their other tasks, move around the facility providing help to students. Linda Shea, who has been volunteering in the LMC for ten years, ever since her daughter began attending Chico High School, often helps at the circulation desk and enters data into the online catalog database.

How Do People Work Together?

"I think that we need to stress the collaborative, instructional development role of the library media teacher now more than ever," says Peter. "This is critical. Its importance is pointed out in *Information Power; Building Partnerships for Learning* and also shows up as a critical activity in the Colorado Study and follow-up studies. The second Colorado Study stresses collaboration between librarians and teachers as being the pivotal factor in increasing student achievement. If library media teachers don't collaborate with classroom teachers, students' achievement doesn't rise to the extent possible. In addition, the research points out that collaboration with teachers is made possible principally when the librarian is perceived as a leader. Nowadays, library media teachers engaged in offering technology training for both teachers and students are the ones most likely to be perceived as leaders."

Much of the collaboration at Chico High School begins when classroom teachers come to schedule their classes into the LMC. As they schedule, Peter is usually able to talk with them and ask what their needs are. In this way, if something is needed that is not available in the LMC, he is able to avert student and teacher failure by gathering resources prior to the classes' coming. When a classroom teacher and Peter are developing or reorganizing a unit or activity, then he arranges a time for the teacher to come to the LMC for more extended periods of time in order to do more extensive planning. Peter says, "I look at a teacher's comfort level and what he or she is going to need. All the typical interview techniques come into play. I look at the level of the students and their familiarity with our library and with technology; then I try to come up with a plan to make sure they're successful in here. Because I have the equivalent of two full-time support staff, I have a lot of time to do what I'm supposed to be doing, and that is collaborating with teachers and meeting their needs."

When Peter works with classes, he limits his presentations to ten to fifteen minutes. "Kids hate it when we talk to them for a long time," says Peter. He uses a projection system and pull-down screen to explain how to access and use resources. The classroom teachers are expected to work with their students when they are in the LMC, and students are usually expected to know what resources they'll be using. Peter says, "If we've been able to plan properly, then the students are successful."

Peter is involved with training classroom teachers in the use of technology. During the 2000-2001 school year, he trained teachers to develop lessons that make use of the web. The training was given after school, from 4:00 p.m. to 7:00 p.m.

The principal, Roger Williams, invites a lot of input. Peter is very active on the advisory committee for the Small Communities Learning Grant. He is on the technology and staff development committees. He was on the committee that created the applications for the California Distinguished School award and the National Blue Ribbon School award. He chaired a committee for the WASC evaluation.

Collaboration extends beyond the walls of the school. For instance, when two teachers wanted to take their students to CSUC to research local history in a special collection there that includes information on northeastern California, Peter made an appointment for the teachers and himself to meet with the special collections librarian and his staff. They brainstormed and prepared for the visit. As a result of the visit, Peter set up links on the page of the LMC's website that corresponds to the particular assignment the teachers were giving. The links enabled students to access from the school and from home the CSUC online catalog and their digital collection. He and the teachers discussed strategies and sequence of activities. They set up times for the classes to come to the LMC to search CSUC's online catalog. A beginning activity for the group was to write analyses of photographs (primary sources) so Peter printed out forty or fifty images from the online collection. The students were also doing a historical mapping project in which they were helping the city map different sites in the city. When the students are finished, the city will be able to put out a digital map on which people can click on historic sites to pull up information.

All students may use CSUC's library. The students fill out a form available in Chico High School's LMC that gives them permission to check out three books. After the high school's LMC closes at 4:00 p.m., many Chico High School students use CSUC's library. (One public library serves the whole city and is only open for limited hours.)

In What Kind of Facility Are They Working?

The layout of Chico High School's LMC supports working with students and collaboration with classroom teachers. The circulation counter extends across a corner of the L-shaped room. From there, staff is able to observe student activity throughout the room. There is sufficient space for Peter to work on his computer at a desk adjacent to the circulation counter. He is able, whenever he is talking with students or teachers, to show them on his computer examples of resources to explore, to brainstorm, and to work online as they talk, and, at the same time, he is able to observe students throughout the LMC. From this vantage point, he can simultaneously observe what is happening in the LMC and work on his Web pages. Because the layout facilitates multitasking, Peter is able to use his time more effectively.

The LMC comfortably accommodates two class groups plus students on passes. In one classroom area, on the left side of the LMC, a projection system is set up, and that is where most instruction takes place. Computers fill the center portion, and another classroom area is in the narrow portion on the right side.

In a room in back of the circulation desk, Peter has set up a digital preparation area with one Macintosh and one PC, a space strictly for teachers in which they can work undisturbed. From this room, the teachers have access to all the LMC's resources.

What used to be considered the library media teacher's office is now a network control center. It houses a network server, a Web server, and a backup server.

One room adjacent to the LMC houses educational media equipment, e.g., laptop computers, TV/VCRs, video cameras, overhead projectors, and carts. These are circulated to other parts of the campus by the LMC staff via a reservation booking system. The LMC staff maintains and makes minor repairs to this equipment and provides support to the departments for their media repairs and problems.

In a room adjacent to the LMC, the staff programs equipment to tape television shows requested by teachers. Previously, it was used for video production, which has generally been replaced by Power Point. Now, ACT does most of the media production.

In a career center, also adjacent to the LMC, are a few computers, primarily for working with career materials. The career center resources are linked to the LMC Web Page. Peg Johnson, a part-time career assistant, staffs the center. She occasionally helps out in the LMC, and, since she only works for a half day, the LMC staff occasionally needs to provide some support in the career center.

With What Kinds of Resources Are They Working?

In 2000, Peter Milbury won the first annual International Association of School Librarianship (IASL)/Concord School Library Web Page of the Year Award. His website has links to on-line information sources and services and to information created within the school that supports the work of teachers and students. The virtual tour of the LMC is fun and promotes the LMC and its services. Peter constantly updates the Web pages in response to teacher's needs, new ideas, and links that he discovers. (<http://dewey.chs.chico.k12.ca.us>)

Peter says, "Technology is a tool. It's fun working with it, but now I think of it as just the way we do things. It enables us to be extremely successful. Students need to have access to ideas and information, and they can find them here. A high school librarian needs to be able to organize the Web, which is such a disorganized and overwhelming set of resources. To be able to get the kids used to a certain layout and way of finding things is very helpful. Search engines work, but they only work if you're good at using them. We recommend that students use them after they use the links through which we guide them on our website. A couple of generations ago, folks came out of school knowing to which section of the library to go to find reference books. They knew that certain books were reliable and others weren't as reliable. The same things are true of the Web. We have to get our kids familiar with how to use the Web by means of both browsing and searching. Browsing is just as valuable on the Web as it is among the shelves of books. A library website is like a gateway or a launch pad that is organized by people who know how to do it."

Chico High School received a digital high school grant in the first year of its availability and is currently in the third year of the implementation program. As a result, all of the classrooms are linked to the resources in the LMC. On the LMC home page there are links to about twenty different databases. The students have passwords, so they can access all of these from home as well as from the classroom. Peter hears from graduates of Chico High School that they are still using its LMC website. He hears from student's' parents that they, the parents, are using the website. Sending home the sheet that has the passwords is a wonderful public relations tool for the school and for the LMC.

The fifty-four computers, all but nine of which are PCs, are spread strategically throughout the LMC. These are sufficient, with some students doubling up, for two full classes to work on computers simultaneously. About one-fourth to one-third of the computers will be replaced each year.

The computers have enabled the LMC to much better meet individual needs. "For instance," Peter says, "I showed girls who had newly arrived from Pakistan and had never used computers before how to access things from their country. A lot of the students are accessing information about their culture and people that are important to them."

The LMC collection contains 18,587 items. Of these, about 17,500 are books, which adds up to approximately nine books per student. Although Peter has done some weeding of obsolete materials, he feels a good deal more needs to be done. The rest of the items in the collection are videos, art prints, plays, and audio recordings.

The LMC subscribes to 39 magazines, most of which are recreational. Because of the availability of electronic magazine databases, Peter doesn't find it necessary to subscribe to magazines for research purposes or to keep many back issues. "Our access to magazines," says Peter, "is almost infinite now because a lot of students read online magazines."

"The effect of the special state funding for school LMCs has been phenomenal. We've been able to replace computers and to buy huge amounts of books." One of the targeted areas is reference; Peter has been able to buy a significant number of reference books for the first time in many years. The same is true of young adult fiction. The young adult fiction section really suffered during the prolonged period from the 1970s on, when little money was available for school libraries. "A great deal of fiction of outstanding quality was published during that era of scarcity," says Peter, "so now we're buying lots and lots of the different genres." In the 1999-2000 school year, the LMC received about \$50,000 in special state funding. It spent about \$20,000 on replacing computers and the rest on books.

What Are Some of the Policies?

For students to use computers, students and parents must sign an acceptable use policy. A school-wide policy, just begun during the 2000-2001 school year, requires that students display their ID cards while working on computers. The LMC does not use filtering to screen computer-accessible content.

Email is restricted to the nine Macintosh computers because the LMC is primarily a research facility.

Book checkout is generally limited to three books at a time, unless there is a class assignment on a subject, and then it is normally limited to one on a subject, depending on how many classes are researching the subject. Lost books are billed to the student at their original cost.

10.2

PETER'S STORY

An exciting opportunity for collaboration arose for me in the fall of 1999 when Debbie Travers, a new history teacher at Chico High School, asked if I would help her plan a library-based assignment. She and I had worked together when she brought her classes to the library earlier in the school year. It had been fun working with her and her students, so I was happy to become more involved in the development process for one of her units.

We began by clarifying our objectives. The unit was to be in accord with recommendations of the California History-Social Science Framework for the tenth-grade unit on contemporary issues and recent history in the Middle East. Ms. Travers wanted the students to be active learners, to work in small groups, to use as many primary sources as possible, and to continue making use of the Internet and online periodical databases such as SIRS and InfoTrac. She also wanted the student outcomes to be evidenced in something other than standard typed reports or a multiple-choice test.

To get started, we met twice in the library, each time for the better part of a period. We developed strategies, brainstormed scenarios, reviewed resources, and planned the time line. Later, we would chat briefly in the staff room or her classroom to exchange observations or review student progress. The process was enjoyable and rewarding. Being invited to take part in the unit examination experience was an added plus.

A visit to the tenth-grade/Middle East section of the California SCORE History-Social Science website yielded forty-nine links to Middle East resources, including CIA World Factbook Country Data, newspaper and magazine links, government information collections, and the United Nations Security Council. (<http://score.rims.k12.ca.us>) (Author's note: Peter played a leadership role in developing the SCORE website.)

During our initial explorations, we realized that the United Nations played a pivotal role in the Middle East during the latter half of the twentieth century. We examined the U.N. website, which included information on its structure, mission, responsibilities, key documents and reports, guidelines, links to resolutions, and participating countries. (<http://www.un.org/>) We soon were able to visualize how this excellent primary source might be used as a springboard into the unit. It seemed natural to use role playing as a process, with the students acting as representatives of member countries of the U.N. Since there are fifteen countries represented on the Security Council, we decided to pair students and assign each pair a country. First, we familiarized ourselves with the U.N. Security Council online resources. Next, we adopted a scenario based on the then current issue of the Hasmonean (Western Wall) Tunnel: The Security Council members receive a memo from the Secretary-General requesting them to come up with a definitive resolution, within a week, on the Israeli-Palestinian crisis.

At this time, we decided to make use of the Problem-Based Learning (PBL) approach, which places students in the midst of a realistic ill-defined problem with no obvious or clear-cut correct solution. In PBL, students work individually or cooperatively, approaching the subject matter as a problem to be investigated and dealing with the need to struggle with alternative solutions. Solutions or recommendations become part of their reports or presentations.

Since Ms. Travers' students were new to the PBL process, we felt that we needed to provide them with a background briefing that reviewed the situation. This procedure fit in with how the problem might actually have been presented to Security Council members. To give the students some of the information they needed, we decided to provide, in their classroom, several newspaper articles that described the current Middle East problem regarding the Hasmonean Wall. In addition, we decided to provide a printout, obtained from the U.N. website, of the history of U.N. General Assembly votes on Middle East issues.

I gave the students a brief orientation in the library on the use of the Web and CD-ROM magazine databases, showing them how to find information on the historical background of Middle East issues. After the first day of orientation and research, the students visited the library three more times. They were given time in the classroom to review, formulate, discuss with their partners, and work on their presentations. Library research time was split, with two days at the beginning, followed by class time, followed by library research time. An additional day in the classroom was provided for final preparation.

Student presentations were given during a mock meeting of the Security Council. Ms. Travers served as Security Council President and, as such, called upon the various countries' delegates to give their presentations and cast their votes. After all the delegates' speeches were made and votes were cast, Ms. Travers allowed the students a time to reconsider and to revote based on their own, personal reactions to the sessions.

I attended almost all of the sessions and was able to assist in the evaluations. Ms. Travers and I agreed that students participated actively in their own learning. Their engagement in role-playing activities required them to have a deeper understanding of the history, organizations, countries, and events than they would have had if tested by a pencil-and-paper test. It was our impression that PBL, technology, and library research compelled the students to perform and learn using a higher level of thinking than they would have used through other teaching approaches.

Next year, we would like to have a better-developed grading rubric with examples available for students to see at the beginning of the unit. The rubric will provide them a clearer standard for which to aim.

This rewarding collaboration led to many other opportunities to work with Ms. Travers. She has since become department co-chair. The relations between the library and the social science department are excellent. That department is our biggest user of library services.

10.3

PLANNING FOR RESULTS

Peter Milbury

The first step in planning instruction is to determine what is to be achieved, that is, what we want students to know and be able to do. This involves determining which educational standards will need to be met. Second, decisions must be made as to what is acceptable evidence of student learning. The criteria need to be shared with students so they know exactly what is expected of them. The third step, which can only realistically be accomplished after the prior decisions have been made, is to decide upon the instructional strategies to be used and the activities in which students will engage. The plan for Peter's lesson follows; observations regarding how standards are met are included.

Identify Desired Results

Information Literacy Standards

Standard 1: ...accesses information efficiently and effectively.

To enable students to easily access information on the Internet, Peter and the classroom teacher explored various websites before initiating the unit of study. A visit to the tenth-grade/Middle East section of the California SCORE History-Social Science website yielded forty-nine links to Middle East resources. (<http://score.rims.k12.ca.us>) They discovered that the U.N. website was an excellent primary source. (<http://www.un.org/>) Peter linked these websites to the LMC website. He then gave the students a brief orientation on searching the Web and CD-ROM magazine databases, showing them how to find information on the historical background of Middle East issues.

Standard 2: ... evaluates information critically and competently.

Students, acting as representatives of member countries of the U.N. Security Council, evaluated information in order to decide upon a definitive resolution of the Israeli-Palestinian crisis regarding the Hasmonean (Western Wall) Tunnel.

Standard 3: ... uses information accurately and creatively.

Students needed to use accurate information and effective persuasion techniques when they made their presentations during a mock meeting of the Security Council. After all the presentations, students cast their votes for the best solution.

Standard 6: ...strives for excellence in information seeking and knowledge generation.

Both Peter and the classroom teacher felt that the students' engagement in role-playing activities required them to have a deeper understanding of the history, organizations, countries, and events than they would have had if tested by a pencil-and-paper test. This Problem-Based Learning (PBL) approach plus technology and LMC research compelled the students to perform and learn using a higher level of thinking than they would have used through other teaching approaches.

Standard 9: ... participates effectively in groups to pursue and generate information.

The students worked in pairs, each pair representing one of the countries that is a member of the Security Council. They made their presentations during a mock meeting of the Security Council. After all the presentations, they cast their votes for the best solution.

History-Social Science Content Standards for California Public Schools

Standard 10.10: Students analyze instances of nation-building in the contemporary world in at least two of the following regions or countries: the Middle East, Africa, Mexico and other parts of Latin America and China.

Students engaged in research and in role playing activities in order to develop an understanding of current events in the Middle East.

Determine Acceptable Evidence

Working in partners, students access, evaluate, and synthesize information that represents the point of view of a member country of the United Nations Security Council. During a mock meeting of the Council, students share information that they then use as a basis for reaching individual decisions.

Plan Learning Experiences and Instruction

Students will need to know...

- Internet and CD-ROM searching techniques
- Historical background information

Students will need to be able to...

- Synthesize research
- Evaluate information
- Orally persuade
- Make decisions

Responsibilities for Teaching and Learning Experiences:

1. Plan the unit of study. (classroom teacher and library media teacher)
2. Provide historical background information. (classroom teacher and library media teacher.)
3. Locate sources of information. (classroom teacher and library media teacher)
4. Organize Web-based information resources into a conveniently accessible Web page for student use. (library media teacher)
5. Develop a timeline (classroom teacher and library media teacher)
6. Provide time and assistance for students to search for information (classroom teacher and library media teacher)
7. Provide time and assistance for students to review, formulate, discuss with their partners and work on their presentations (classroom teacher and library media teacher)

11.1

LEADERSHIP IN THE LMC AND BEYOND

**Kay Tortorice
Polytechnic High School**

"We realized that we were graduating two tiers of students: those who had technological skills and those who did not. We did not want those students who lacked computers at home to leave our school disadvantaged."
Kay Tortorice

Who Are the Students?

One of the largest high schools in the United States, Polytechnic (Poly), has about 4,100 students. It is located in the heart of the lowest socioeconomic area of Long Beach. Despite the school's large size, it cannot accommodate all the students who live in its attendance area. 75% of the students in the school district live within its attendance boundaries, so most of the students who would normally go there are bused to one of the five other high schools in the Long Beach Unified School District (LBUSD).

The school's ninth through twelfth grade student body is made up of approximately 26-28% Cambodian Americans, 26% African Americans, 22% Anglo/Europeans, 16% Samoan Americans, and a small number of Hispanic and other students. Most of the Hispanic students entering the LBUSD who have English as a second language (ESL) needs are sent to a different high school with a strong ESL program. When students reach competency level four, they return to their home campuses.

To give the students a sense of being in a smaller school in which they can identify with their peers, the student body is divided into five academies. Ninth graders are asked to think about career choices, then select to attend the arts, business, communications, or science and math (Beach) academy. Students in these academies can change academy at any time during their Poly career. The fifth academy, a successful program for teacher-identified at-risk students, places about 500 students in smaller classes in which the teachers have an individualized approach. A counselor works closely with this program. Many of these students have continued on to college.

Approximately 600 of the students are in PACE, the school's highly gifted and talented magnet. Another approximately 600 students attend the school's other magnet, the Center for International Commerce. The emphasis in the latter magnet is on business and economics, particularly dealing with Pacific Rim countries. To support its program, it has developed relationships with several of the port industries and other industries in the city. Several of those accept Polytechnic students as interns and give them hands-on experiences in the world of commerce.

About 500 eleventh and twelfth-grade students attend Poly Academy for Accelerated Learning (PAL), on another campus. They get a full year's credits in one semester. PAL tends to appeal to three kinds of students: those who want to finish high school early, those who are credit deficient, and a significant body of students who can only

attend classes in the morning because they need to hold down jobs to help support their families.

Eight special education classes, four of which are self contained, serve mentally, emotionally, and learning disabled students. As many students as possible are mainstreamed and provided additional support through consultations between special education and regular classroom teachers.

LBUSD is distinguished in that it provides a credentialed library media teacher for every school in the district, including elementary schools. "That's where our money goes for library programs in this city," Kay says. She sees the effects of this district policy in the students she serves. "I am most fortunate. When students reach me, they have had all the basic stuff. Kids know how to use the card catalog; they know how to use encyclopedias and dictionaries. There is very little I have to teach about those resources. When it comes to teaching, I do more reinforcing. I focus on how to use more specialized research tools. I have worked in a couple of districts that did not have library media teachers at the elementary school level, and I see a real difference in the students here. By the time students reach the high school level, they are really at ease in libraries. They've been in libraries ever since they've been in kindergarten. They're familiar with them, they're familiar with their functions, and they know how to use them. It's a good place to be for them. There's a much different atmosphere here."

Who Are the Staff?

Kay Tortorice, the library media teacher, provides leadership in many areas. She sees herself, in part, as a manager of technology as well as of more traditional resources. She spends as much of her day making sure the technology is in place and working as she does helping students find exactly the right book or information resource. She serves on the school technology committee, school site council (on alternate years), school budget committee, school reform committee, and the district book review committee. She mentors library media teachers new to the district.

"I am involved in grant writing, particularly for technology and for books in the library media center (LMC), because I want to be," explains Kay. "Grant projects in which I've taken a leadership role have probably gotten about two million dollars worth of stuff for the school. We've been real successful at that. Grant writing takes a lot of work and it's all done outside the regular work day."

One of the grants Kay helped write was for the Annenberg Project. As an outgrowth of that, Kay took Critical Friends Facilitators Training. Using the skills learned there, the library media teachers from the seven Annenberg Schools in Long Beach meet once a month to talk about how they can improve their teaching. This year they are concentrating on going over all the district content standards. "That has been a really strong support group," Kay says.

Dina Barsky, the library media assistant, takes care of making sure the audiovisual collection is well organized. She used to spend much of her time recording off-air television programs and keeping the videos and television sets working. Now, most of her work consists of trouble shooting and loading computer programs. "Her role, like everyone's in a LMC, is evolving and changing," says Kay.

Other adults working out of the LMC are the school network administrator, Derek Walker, and the teacher in charge of the digital high school project, Bruce Potter. Bill Mar teaches in the Plato Lab, an individualized learning lab adjacent to the LMC that targets students who need help in English. During non-class time, individual students may use the Plato Lab. (It was obtained through a grant Kay and two math teachers wrote, and Kay has used it to provide training for classroom teachers.)

Bruce, Derek, Dina, and Kay have, to some extent, interchangeable roles in regard to technology. They all do minor computer repairs. All four load and trouble-shoot programs on computers. Kay is in charge of making sure that everything runs smoothly.

Three aides, all former Poly students who are now attending college, work 50 hours a week between them. One of them works mainly with technology and is setting up a LMC home page with curriculum-related research sites. One does many clerical tasks, and the other mainly works the circulation desk. They are young, fearless regarding technology, and require little supervision. On the other hand, their work schedule has to be built around their college classes so they aren't always available when they are most needed.

Kay may have up to 36 student library assistants, six per period. Students receive five units of credit for the library service class and are trained to handle most LMC procedures, freeing Kay to teach classes. This has worked well, but, because the University of California system has increased its requirements, students have fewer electives and the number of student library assistants has dropped to 26.

Because of its large size, the school has two principals: Sean Ashley, who is in charge of curriculum, and Mel Collins, who is in charge of student services.

The district high school superintendent, H. J. Green, formerly a principal at Poly, is an incredibly strong library supporter.

How Do People Work Together?

Polytechnic High School has a strong site council that is responsible for educational reform. Kay serves on the council on alternate years. The council established academies, the smaller groupings into which the school has been divided to develop more intimacy; established a block schedule; and agreed to the school's technology plan. Every department has at least one representative, usually two, on the site council so, essentially, decisions about the ways in which the faculty works together are made by a group of peers. Everyone at Poly works together to integrate curriculum and technology.

A decision was made before Kay arrived that major research projects would be done through the social studies department, so she does a lot of work with social studies teachers. In the 2000-2001 school year, Kay began teaching how to use the Internet for research to all ninth-grade world history classes.

The technology committee, on which the principal, Sean Ashley, and Kay play key roles, decided that collaboration of the social studies and English departments with the LMT would take place on a department-wide basis. Kay hasn't needed to promote collaboration between the library media teacher and individual classroom teachers in these departments because it is a given. Instead, she provides training for social studies and English teachers as well as teachers in other departments in the use of the print and technology resources available in the LMC that support their curriculum.

Kay also collaborates through the academies. Each academy has a core of teachers who have the opportunity to work together to do big projects. Many teachers haven't been used to working interdepartmentally; they are more comfortable working within their departments. However, just about every year a new group of teachers decides to try something new, and they do an interdepartmental project. There are several groups of teachers working together on large projects, and the LMC always figures prominently in them because a lot of research is done. For instance, in the

communications academy, the history, science, English, and art teachers collaborated on a big project about what life was like in the 1960s. Each had his or her own part: for example, the science teacher verified facts, the English teacher looked at grammar, and Kay helped students with research to get the information they needed. At the end of the project, they set up the displays and did their presentations in the LMC. Each year, collaborative projects get modified and improved or something entirely new is tried.

Classroom teachers come to the LMC individually to discuss specific units of study and the availability and use of library media resources to support their units. Health, communications, and art teachers bring their classes into the LMC, too, even though they aren't in the targeted departments; there are as many teachers from the non-targeted departments using the LMC as there are from the targeted departments.

When classes come in, Kay teaches them how to use the resources they need to do their research, particularly the more specialized tools. She tries to keep her lessons short so students can spend most of their time actually getting information. She works with the teachers before they come in so that she knows what they are going to need. Often, she prepares bibliographies for them.

"In terms of the traditional collaboration model in which the library media teacher sits down with the classroom teacher, and they plan a lesson, decide on who's responsible for what parts of it, evaluate how it went later on, and even evaluate student work, I find doing that very difficult here," explains Kay. "I find, since I'm wearing two hats, technology manager, which is a full-time job, and library media teacher, which is a full-time job, I really haven't been able to sit down with classroom teachers and plan lessons. Our collaborative plans are done on the fly."

Parents are involved. Kay and a group of parents on the school technology committee wrote a parent component into the digital high school grant. Initially, the digital high school teacher facilitator, Bruce Potter, will provide ten weeks of training to a cadre of parents in the use of some basic software and in how to do some trouble shooting. These parents will then train other parents. After completing the training, parents will be given older-model but serviceable computers to take home or low-cost computers will be located for them. They'll either rent them or they'll be available for purchase at a low cost.

In What Kind of Facility Are They Working?

The 4,270 square-foot main room of the LMC has a traditional feeling. Color is provided by windows too high to see out of that are tinted green, red, white, and blue. Another source of color is a striking, large, student-made mural of hands holding a globe surrounded by flags. The design for it was picked in a student contest, and Kay and the head of the art department supervised its creation. Quilts made by ninth-grade English classes depict elements from novels. One bulletin board contains newspaper articles about the school and another a large sheet of paper on which to write book requests.

The recreational reading area has a new sofa, chairs, and coffee tables.

The class instruction area will soon have an electronic smart board that will record what is written on it and project what is on a computer. There is plenty of room to seat two classes and additional students on passes.

During non-class time, individual students may use the aforementioned Plato Lab. The LMC is open one half-hour before classes begin and for an hour and ten minutes after classes end as well as during snack and lunch breaks and tutorial period (study hall).

Hicks Lab, also adjacent to the LMC, is where teachers take their classes to integrate computer skills into the curriculum. Whenever there isn't a class in there, individual students may use those computers. "When we got the grant for Hicks, we knew we had two tiers of students: those who had technology at home and those who didn't," explains Kay. "We wanted to provide technology for students who didn't have it at home so they could be proficient in technology."

"In making so much technology available, we've been successful beyond our wildest dreams! We didn't know whether people were going to take to technology and they did. It's wonderful! When I taught basic word processing classes to the faculty, the classes were jammed."

With What Kinds of Resources Are They Working?

There are approximately 23,000 books in the LMC collection. This figure isn't static because more books are constantly being added, and progress is being made in weeding the collection. Three years ago, Kay weeded about 5,000 obsolete and damaged books from the collection. During the 1999-2000 school year she had removed about 2,000 and expected to complete the weeding before the end of the year with the removal of around 2,000 more.

Weeding began in the fiction section, where neither students nor teachers were finding books they wanted to read, and that has been the first section built up. "Because of special state library funds," says Kay, "we have been able to order a lot of wonderful new books, and I have been able to get rid of a lot of the dead wood that has been on the shelves." Kay has invested heavily in paperback novels because the students like them and, with no lockers, find them easier to carry around. A much higher percentage of books is being checked out from the fiction section than in the past. She has ordered everything on teachers' reading lists that she can find.

There has been no district book budget for library books in the eight years that Kay has been at the school, and there wasn't for many years previous to her being there. For many years, the only money for library books came from federal funds, and that varied from year to year, so long-range planning was difficult.

The school is relying more and more on electronic resources. Winnebago is the online catalog. Because of the digital high school grant, by the end of May 2000, all 70 computers in the LMC and the attached labs are being hooked up to the Internet. Also, the classroom and LMC computers will be linked.

Students are using CD-ROMs to do the kind of research that, for example, they would previously have done in the *Reader's Guide to Periodical Literature*. "Students are," Kay says, "more likely to get up-to-date information from electronic resources than from books. Books will continue to be a vital part of the collection but will only be one aspect of information resources. It's going to be far more important that we make sure we have a really high-quality collection than that we have a large number of books on the shelves." Nevertheless, Kay keeps paper copies of *Reader's Guide to Periodical Literature* up to date because some teachers prefer to use it in that format. Kay initiated a reading incentive program, Electronic Bookshelf, a number of years ago. At Poly it is called Reading Counts. A couple of English teachers asked if they could use it in their classrooms, and now it is used in the classrooms of half the teachers in the English department. While the activity no longer takes place in the LMC, library funds are used to buy the books that support the program. District policy dictates that no novel can be put on the shelf that has not personally been reviewed by a district library media teacher. Since many of the Electronic Bookshelf selections have not been reviewed locally, Kay does lots of book reviewing for the program.

The LMC subscribes to 23 magazines that meet students' academic needs. Kay has been paring these down because much of the information they need from magazines they now get via the Internet. She has just started thirty-one subscriptions to high-interest magazines for the new recreational reading area. There are six newspapers, four of them for recreational reading.

What Are Some of the Library Media Center Policies?

There are several systems in place to make sure the students have a stake in keeping the computers in a good state of repair and available for use. To obtain an ID with a red dot, which allows them to use the computers in Hicks Gallery or Plato Lab, students must get a parent permission card signed. This card contains a summary of the district's fair use policy. They also have to go through a training in order to get an English teacher's certification that they are proficient in basic word processing skills. If students want to use the Internet, they must go through another training or prove they can use the Internet and then receive a green dot on their IDs. They earn the privilege of using the computers and take wonderful care of them even though adult supervision is minimal; an adult supervising the main room of the LMC just walks through the labs periodically.

The Internet is the first unevaluated unstructured resource that LBUSD has let into LMCs. In an effort to minimize access to inappropriate materials, the district has implemented an extensive filter that is quite thorough and cannot be overridden. At times, this is a problem. For example, abortion, the single most popular research topic when students are given free choice, cannot be accessed on the Internet. Filtered topics cannot even be accessed on the card catalog at the public library. The district realizes this needs to be changed. The filter does accommodate parental wishes.

Part of the digital high school goal is that each student will have an email address. There is concern at the district level that this privilege may be abused. The mechanics of how to permit email and still meet the district level concerns have yet to be worked out.

11.2

KAY'S STORY

Sometimes when I look at all of the activity going on in the school library, I'm almost convinced that we're no longer a library, that we've evolved into something else. I don't have a name for it, but library most nearly describes what we have become.

It all started, and continues, as a result of collaboration. But in this case, it is not a collaboration with individual teachers, although we do that, too. It's a school-wide collaboration in which the library has evolved into the technological hub of the school. It started nine years ago when I began working at the school. At that time, we had no computers. Two math teachers came to me and asked me to help them write a technology grant. We put our heads together and came up with a proposal for an AB 1470 grant. It was unique in that it called for every student who graduated from Poly to be computer literate. Students would have directed lessons with computer skills built into the curriculum at each grade level. Ninth-grade English students would learn to use word processing for the volumes of writing they produce. Tenth grade students would learn to use computer peripherals and computer simulations in science classes. Students in eleventh grade would learn to use compact discs and computer applications for research in U. S. history classes. And students in twelfth grade would use the Internet and computer applications for research in their economics classes. Students would use this technology in a technology center in the library. Collaboration: two math teachers and the librarian, four whole departments and the library.

Today, when we look back at those goals, we think that we were in some kind of technological dark age. Today, students come to Poly for the most part with those skills already part of their academic repertoire. But nine years ago, many of our students did not have computers at home. We realized that we were graduating two tiers of students: those who had technological skills and those who did not. We did not want those students who lacked computers at home to leave our school disadvantaged.

A word about the school: it is an inner-city school. With a total population of over 4,100 students, we are one of the largest high schools in the nation. We have a gifted and talented magnet and the Center for International Commerce, a magnet program centered on Pacific Rim economics and commerce. Students who are not in the magnet programs belong to one of five academies, each of which offers students college preparation in a specific area: math and science, business, arts, communication, and Pacific Rim, an academy devoted to helping students identified as at-risk. We have two campuses, block scheduling, and an active site council that sets policy for the school. We have been selected as a California Distinguished School twice in the last eight years and our sports teams strike fear in the hearts of athletes all over Southern California.

But we didn't have computer access for all students. The grant solved that. In addition to being the librarian, I became the project manager for the grant. The twenty computers were housed in a room adjacent to the library where they could be used by all students whenever a teacher wasn't using them for a directed lesson. Because they were in a room open to the library, I was responsible for managing their use and for basic trouble-shooting. Students could use them before and after school, during lunch and during our tutorial period, a period at the end of the day where

students choose a teacher for further help with particular lessons. We used the library circulation system to check students in and out of the technology center. This also gave us statistical data on the use of the room. Collaboration: I managed the grant and student access to computers while teachers, after being trained, brought their students to the library for technology lessons that were an integral part of their classroom lessons. Many of these lessons involved using print library resources as well as technology.

We formed a technology committee to administer the grant. I chaired the committee. We started out by training teachers to use the computers. Lead teachers showed their departments how to use specialized software programs. We brought in mentor teachers to train teachers to use technology in classroom lessons. I taught every adult in the school computer basics. The results were incredible. As a result of the basic computer training, nearly every teacher, clerk, custodian and groundskeeper wanted a computer for school use. There wasn't enough time to get all of the targeted students into the tech center. Students kept the machines occupied nearly all of the time that they were available to them. I began offering a variety of after-school classes for teachers who wanted to learn how to produce slide show programs, produce transparencies, and other classroom-specific technology. I also continued individual collaboration with teachers bringing their classes in for research by teaching the classes, providing bibliographies, doing book talks, and being an all-purpose reference person.

Twenty computers weren't nearly enough, so when the next round of state technology funding came around, the entire math department and I wrote another grant, with input from nearly every department in school. The statistics we had collected in the library as part of managing the tech center were instrumental in convincing the state of California that we had a need for more computers. With the new grant we cut a doorway into another room adjacent to the library and installed 20 more computers. The technology committee wrote a third grant to the school district for 14 more computers, giving us a classroom-sized collection in the new room. Again, I was responsible for managing the computers, using our library circulation system to keep track of student use, and maintaining a schedule book for teachers who brought their classes in to use the computers as part of their regular classroom lessons. My media assistant and I were responsible for basic troubleshooting. My library media education students were helping teachers and students use software. Soon teachers who weren't part of the targeted group were coming in to the library looking for space to use the tech centers to teach art, electronics, world history, debate team, physical education, and more. Collaboration: I managed three grants, did basic troubleshooting, did PR for the tech centers, and managed student use of the computers, making it possible for teachers in all fields to use the computers.

Again demand outstripped supply, especially for students who needed to use computers during class time when teachers had the tech centers occupied. Teachers accompanied me to the site budget committee to ask for funding for more technology in the main reading room. The budget committee purchased two heavy-duty laser printers to eliminate printing logjams and printing problems. Teachers helped me write mini-grants to provide computers and software to assist with research in the library reading room. At teacher request, our principals hired two college aides to help with computer troubleshooting, to help teachers who were teaching in our two technology centers, and to help me with routine library work such as processing materials. Then the district funded fiber optic connections and the other necessary technology to put our card catalog online and to connect five computers to the Internet. I began offering Internet classes during tutorial periods for students and during conference periods for teachers. We were cooking! And, of course, we still didn't have enough computers to adequately serve over 4,000 students. Now our collaboration went beyond the site. We were collaborating with the district to serve our teachers and students and bring the world to the library.

Teachers from all areas were bringing classes to do research or word processing or to use department-specific software. The library was perceived to be the technological center of the school. As more teachers got computers in their classrooms, the library media assistant spent more and more of her time helping teachers in the classrooms to load software, clear printer paper jams, and solve hardware problems. The principals gave us another college aide, to the delight of everyone using technology in the library. When I asked teachers for suggestions for titles to purchase, more and more requests were for specific software titles. Many teachers were relying on computer-generated research databases such as NewsBank, Noticias, SIRS Researcher, the 3-D Atlas, encyclopedias on CD ROM, and the Internet. Students who wouldn't be caught dead reading an encyclopedia were enthusiastically reading the same articles on the compact disc version of the encyclopedia. It was at that point, about four years ago that I found both myself and the media assistant spending a lot more time working with technology, whether as project manager, troubleshooting hardware, helping students with software, or guiding research on the Internet, than on the traditional print kinds of research.

Then a miracle happened. Poly was chosen in the first round of digital high school funding. I expanded the technology committee to include teachers from all departments and parents. We surveyed everyone on the staff and the principals gave us time during inservice days for each department to develop a technology plan. It took a year of writing but we were able to develop an application for the digital high school grant that met with approval of the whole staff and the state of California. Every room was to have at least one computer with appropriate software and a printer. The entire school would be networked and a new electrical system installed to handle the extra load. A third technology center would be added to the library.

Because the grant was so large, over 1.5 million dollars, I could no longer serve as both project manager and librarian so we have hired two people as program facilitators. The network administrator is responsible for getting the network up and running and for working with hardware. The teacher facilitator is responsible for training teachers, teaching a student technology class, and for implementing other program parts of the grant. These two new employees use a small library room for their office. Part of one of the technology centers is used as a staging area for computer assembly. Occasionally, the main reading room is pressed into use to set up computers. Training for teachers who are learning to use the computers in their classrooms is held in one or the other of the technology centers. Now everyone in the school thinks that each of us in the library is a computer expert. In fact, we each do have areas in which we are competent as well as a good basic knowledge of hardware and most of the software and the Internet. So now the collaboration has expanded from classroom teachers and the librarian to include computer experts who work in the library as well as in the classrooms.

Our district's high school superintendent decided to make Poly the trial school for PLATO, an individualized learning program. The logical place to put the system was in one of the library technology centers. We hired a teacher for the program and began bringing in students who needed help with reading. During non-class times, students use those computers. With the digital high school funding, we are converting the larger of the two technology centers into two centers. We will have one Macintosh center and one PC center as well as the PLATO lab. All will be connected to the Internet.

So when I look at the library program, I see on the paid staff:

- ✓ 1 librarian
- ✓ 1 media assistant
- ✓ 1 network administrator

- ✓ 1 teacher facilitator
- ✓ 1 PLATO instructor
- ✓ college aides

In addition we have 25 to 30 library media education students who are trained to help with circulation and computer software. We're all involved with supplying technology expertise to the entire school. It is a result of a unique school-wide collaboration in which staff members expressed a technological need and supported a non-traditional library program to supply those needs. The collaboration has many partners: teachers, administrators, classified staff members, parents, students, even substitute teachers who are happy to share their latest bit of computer knowledge, and of course, the librarian. I'm not a very traditional librarian now. I'm part librarian, part trainer of classroom teachers, part computer geek, whatever it takes to meet the needs of our staff and students. With all the different kinds of things we do, I still don't know exactly what to call the place, but I think library just about sums it up.

12.1

INFORMATION LITERACY: A WHOLE SCHOOL REFORM APPROACH

Lesley Farmer Redwood High School

"It is one thing to have standards and another to implement them. For the latter to occur, school-wide commitment and action are needed. For significant student achievement to occur, systematic and research-grounded work must be conducted and evaluated."

Lesley Farmer

Who Are the Students?

Redwood High School, located in Larkspur, is a suburban school serving approximately 1,350 ninth through twelfth-grade students. 85% of the students are Anglo/European; of these about 11% are Middle Eastern, mainly Persian, and about 8% are Hispanic. Approximately 3% of the students are African American; most of the remainder are Filipino or Pacific Islander.

The majority of the students come from middle-class families, but there are also less affluent students who live in trailer parks as well as students from quite well-to-do families. Some of the parents are very involved with their children's education and expect them to go to prestigious universities such as Stanford or Harvard. On the other end of the spectrum, there are students who live independent of their parents.

Redwood High School offers advanced placement (AP) and honors classes in just about every subject matter area. A number of the students take courses at local universities, for example at University of California, Berkeley and at Stanford. The counselors make sure all students are aware of these kinds of opportunities. 95% of the students continue on to college.

Redwood is the southern Marin County magnet school for multiply physically challenged students. Their classrooms are located immediately across the hall from the library media center (LMC) so some of them come in every day.

There are a number of safety net programs. Creative Learning, for instance, is a program for students who do not have disabilities sufficiently serious to merit individual education plans (IEPs) but for whom special accommodations need to be made. They are often in classes that have lower student-teacher ratios or more independent study kinds of projects than found in most classes. Special education teachers work very closely with the teachers of these students as well as other disabled students who have been mainstreamed.

Next to the main campus are two alternative high schools. One of them has about 100 students and offers an independent study program. It is for students who have had difficulty succeeding in regular classrooms for reasons varying from participation in the Olympics to family issues. The other alternative high school serves about fifty students, some of whom have been incarcerated or have otherwise exhibited severely disruptive behavior; others have learning differences that warrant alternative settings.

Who Are the Staff?

Tamalpias Union High School District has always given strong support to school library media programs. Every school has a full-time credentialed library media teacher and full-time clerical assistance.

Lesley had been the library media teacher at Redwood High School for six years. She says, "The library has had strong leadership ever since the school opened in 1958. I was hired in large part because of my strong technology background. When I first began working there, in the process of trying to make sure the LMC offered the best technology resources, I got labeled as a techie. I made sure, in the following years, that I promoted books at least as much as technology."

A full-time and a three-hour clerk run the circulation system, process materials, and assist with clerical tasks. Lesley says, "A part-time clerk is needed in addition to the full-time clerk assigned to all school LMCs in the district because of this LMC's large size and heavy usage. There is particularly a need for additional assistance at lunchtime, when approximately 200 students use the LMC. Having that extra assistance permits me to meet with classroom teachers during lunch."

There is a strong volunteer program at the school. Six parents volunteer in the LMC for a total of about twelve hours a week. Mainly, they clip articles for a file that consists primarily of local news not captured by online news services. (Of particular interest is news about Redwood High graduates.) Volunteers also create displays and process books.

Two student assistants work in the LMC almost every period. Their responsibilities include working with technology, filing, book processing, and working at the circulation desk.

In the early 1960s, the school had a student body of 2,600 students, many more than now. Current plans are to cap the student body at 1,600. Computer labs and enrichment programs utilize spaces that previously were classrooms.

In What Kind of Facility Are They Working?

The nearly 7,000 square foot LMC has three rooms. The largest room, with beautiful windows on two sides, houses the general collection. Another room houses an enormous reference collection and two dozen student computer stations. There is a separate room for periodicals. One of the four computer labs and the computer network technician's room are adjacent to the LMC. When students are doing research, they are able to take reference materials from the LMC into the adjacent lab. It is usually supervised by the network technician, a credentialed teacher.

With What Kinds of Resources Are They Working?

There are approximately 35,000 books in the collection, about 26 books per student. The reference collection alone has between 5,000 to 6,000 volumes. Both Lesley and the library media teacher previous to her had consistently kept the collection current by weeding on a regular basis. Even so, Lesley spent the new state funding for school LMCs, approximately \$30,000 for Redwood High School, on books. Redwood is part of the Bay Area School Reform Collaborative (BASRC). Lesley wrote the grant for that and included, as one of its pieces, a reading initiative, so she wanted to make sure the state funding supported that initiative.

The LMC subscribes to about one hundred magazines and three newspapers. Lesley says, "There has been a long tradition of having a large magazine collection. The kids are avid magazine readers. Our primary mission is to support the curriculum, so that

is the basis on which magazines are selected. However, many magazines, for instance *Rolling Stone* and *Essence*, meet both curricular and recreational needs. Ethnic diversity is another important selection criteria." The classroom teachers stress use of magazines for research, and students use both the hard copies and the online magazine services. All but the most current issues circulate. Lesley says, "Only by looking at hard copies of magazines, newspapers, and clippings can students gain an understanding of the context in which information is presented. By looking at these, they discover on what page an article is located and the advertisements surrounding a particular article. Context is lost on online services." In previous years, much of the federal ESEA funding, between \$6,000 to \$7,000 for Redwood High School's LMC, was spent on magazine subscriptions. With the influx of state monies, the district chose to spend ESEA money on professional development instead.

All schools in the district have site-based management, so each school determines how much of its budget from the district will be used for the LMC. Usually, Redwood High School allocates approximately \$10,000 a year in district funding to its LMC.

In addition to books, with the state funding Lesley purchased a new top-of-the-line iMac because she wanted to make sure students had an opportunity to learn to use its iMovie feature.

Of the twenty-four student computer stations in the LMC, some are Macintosh and some are PCs. Students, therefore, gain experience using both. To meet the needs of the multiply physically handicapped students, the LMC has three student computer stations with large screens. There is a scanner with an optical character reader that reads the text on these computers orally, and, on a Macintosh, a program called *Simple Textreads* aloud the text in different voices.

The LMC collection includes about one hundred CDs and about seventy-five videos.

Lesley spearheaded the writing of the proposal for the state's digital high school grant. Because schools were prioritized on the basis of need, Redwood was in the third round of schools to receive a grant. Prior to its receipt, much of the technology the school needed was obtained with the help of financial assistance from a foundation established by the parents. All the classrooms and students' home computers have been linked electronically for a number of years and have access to the LMC's online catalog and other electronic resources. There is at least one computer in every classroom. Every department has a multimedia cart. Every two classrooms share a television and a VCR.

What Are Some of the Library Media Center Policies?

The LMC serves the alternative schools as well as the main campus. Lesley arranges the LMC schedule so that when students from the alternative schools are there other classes do not come in. Thus, she can give students from the alternative schools her full attention. Their classrooms, as well as all the classrooms on the main campus, are networked to the LMC, so they are able to locate books listed on the online catalog and request that they be delivered.

Teachers from all three campuses have input in decisions regarding selection and acquisition of LMC materials and access to the LMC facility. Nevertheless, the faculty of the smaller of the two alternative schools has chosen to house a very small collection on its own campus. Lesley has catalogued these books and listed them on the online catalog with an indication as to their separate location.

Books are checked out for two weeks and can be renewed as often as needed unless someone has placed a hold. Lesley usually tells students, "You can take as many books as you can handle. Just don't wipe out any one section." If students lose books

they pay the replacement cost. No overdue fines are charged, but students are not allowed to check out another book until overdue materials are returned. Lesley will hold a requested book for up to three days for students with materials that need to be returned.

The most current reference materials do not circulate. However, less current reference materials are housed with the general collection and may be checked out. Magazines and clippings are checked out for three days.

Materials needed for assignments may be put on reserve. Lesley and the classroom teachers decide together whether reserve materials are to be checked out for three days or overnight.

Faculty and students may check out the LCD projector, laptops, programmable calculators, and recorders for classroom use.

An acceptable use policy is signed by students and by the parents of students who are under eighteen years old. The computer network technician has set up a system that identifies by ID number which students have permission to access the Internet. No filter is used.

Note: Dr. Lesley Farmer coordinates the LMT Services Credential Program at California State University Long Beach. At the time of the action research project, which she co-chaired, she was the library media teacher at Redwood High School in Larkspur, California.

12.2

LESLEY'S STORY

Students need to be more information literate than ever in this digital age. Particularly since information crowds cyberspace, often unfettered, the need for students to access authentic and useful resources, as well as interpret and apply their findings, becomes of paramount importance.

Realizing that need, the American Association of School Librarians (AASL) and the Association for Educational Communications and Technology (AECT) developed a set of information literacy standards for students, published in the 1998 volume *Information Power; Building Partnerships for Learning*. A year later, the International Society for Technology in Education (ISTE) published overlapping technology standards for students. Certainly, standards-based education has become popular, in part, because it facilitates assessment, including cross-institutional comparisons. Theoretically, it offers a well-grounded basis for instruction.

However, it is one thing to have standards and another to implement them. For the latter to occur, school-wide commitment and action are needed. For significant student achievement to occur, systematic and research-grounded work must be conducted and evaluated. The following action research case study provides a model for such implementation.

A Brief Overview of Action Research

While John Dewey used this kind of systematic examination, action research is associated most closely with the Teachers College of Columbia University in the 1940s. The main idea is to give teachers an empirical way to improve practice. Action research may also be considered as a cycle of inquiry, whereby

- the present situation is analyzed,
- questions are raised,
- factors are identified,
- solutions are proposed,
- interventions are developed and measured,
- data are gathered and analyzed, and
- new questions are posed.

Action research provides a reasonable way to improve student achievement as well as educational practice. Particularly when variables are hard to control, action research at least provides a systematic approach and encourages reflective decision-making.

Demographic Background

Redwood High School, the site of this action research, is a suburban, comprehensive high school that began implementing site-based management in 1992. It enjoys a strong academic record and a supportive community. As the school's accreditation self-study indicated, the student population is becoming more diverse in terms of background and academic and social needs; about 85% are Anglo/European (of which about 11% are Middle Eastern), with Hispanics and African Americans composing a growing percentage of students. English Language Development (ELD) and extensive special education services broaden the school's scope.

At the point of the research effort in 1998-1999, the LMC offered over 30,000 print resources and over 80 magazine subscriptions for all curricular areas as well as Electronic Library. Fifteen student computer workstations were networked to provide access to CD-ROMs, software, and the Internet. Others accessed the LMC's catalog and supported stand-alone applications and special education needs. Instruction had been content-embedded, and several teaching aids complemented verbal help.

Need for Information Literacy Action Research

As the school became a leadership school in the Bay Area School Reform Collaborative (BASRC)⁸, a focused effort was defined: assessment and means to help students meet district outcomes or standards. Initial emphasis was placed on determining outcomes for reading, communication, and mathematics. For instance, starting with the class of 2002, students must meet a reading outcome: "Read and analyze material in a variety of disciplines." The class of 2003 must, additionally, meet a technology outcome: "Using technology as a tool to access information." The focus was a response, in large part, to existing low reading scores in district testing. In selecting those outcomes, there was a real recognition of students at risk, with the intent of providing resources and services to meet their needs. The library program and resources were identified as a vital part of that effort.

Several faculty members, including the library staff, noticed problems students experienced in accessing and evaluating information. Student research questions were sometimes vague and under developed; group work in the library was sometimes inefficient. As the use of electronic resources increased, teachers noticed a rise in student plagiarism. Students voiced their frustration with assignments. Although a scope and sequence of library skills had been approved five years earlier, the faculty felt no ownership and did not carry it out systematically. The Research Strategies Study Group (RSSG) was established, co-chaired by the library media teacher (LMT) and a science teacher. Representatives from the different academic departments and student body participated in the research and acted as liaisons to facilitate all-faculty support and education. The group's goal was ambitious: to improve student information literacy competence through

- developing a repertoire of research strategies,
- critically evaluating information,
- synthesizing and sharing information in creative, meaningful ways, and
- incorporating technology into the literacy process.

The group identified two major research questions:

- What information literacy skills do students need to demonstrate?
- What interventions will improve student information literacy skills?

Determining Information Literacy Skills

First, the group had to identify what students needed to know and be able to do. The timing was auspicious, because the AASL standards were being developed simultaneously on the national level. The LMT spearheaded a literature review to ascertain the latest findings about information literacy and instruction. The group

⁸ BASRC is a multi-million dollar educational project sponsored by the Annenberg Foundation and the William and Flora Hewlett Foundation. BASRC's mission is to "help schools across the region to engage in a comprehensive transformation process to become thoughtful, caring communities with a common purpose and a commitment to the growth and learning of all children and adults." Over 100 schools in the San Francisco Bay area have participated in this five-year reform effort from 1996 to 2001.

relied heavily on the California School Library Association (CSLA) book *From Library Skills to Information Literacy*, Michael Eisenberg and Robert Berkowitz's Big 6 efforts, Colorado Department of Education's work on information literacy standards, the Kansas Association of School Librarians Research Committee study, and the Oregon Educational Media Association's information literacy standards. Using Putnam Valley's extensive list of standards and ERIC, the group was able to track down numerous efforts being made to improve student information literacy.

The LMT created a binder of research and professional readings on information literacy, to which the group referred during and after the study. As the group analyzed the data, patterns emerged. Group members developed a categorized inventory of information literacy skills based on AASL and other standards aligned with district outcomes. A modified Delphi method (a method based on the idea of consensus by experts) was used to validate the list. Faculty, including library staff, and students examined the list and modified it as deemed appropriate. The departments and student liaisons facilitated the process, modifying the list from the first round and continuing the review until consensus about the items and categories was reached. At a faculty workshop, the *Research Skills Inventory List* was approved.

Assessing Present Skills Levels

Basing the assessment on the approved list, the group could then assess the present level of student information literacy to create a baseline for making comparisons. They used a number of evaluation tools to triangulate results. Library staff observed classes doing library research, noting the level of expertise exhibited for the different competencies. Faculty and students rated present skill attainment by grade levels. The co-chairs examined student work, using the list as a rubric. Their findings refined earlier observations. Some of the specific areas that needed improvement included:

- evaluating Web sites; determining the quality and credibility of information
- using specialized reference books
- varying search strategies according to the task at hand
- comparing different sources on the same topic
- using graphic organizers
- writing research papers in a systematic way
- citing sources correctly
- creating annotated bibliographies
- avoiding plagiarism.

The process made apparent a crucial question: Why did gaps in information literacy exist? Since all students need to share certain instructional experiences in order to meet outcomes, the next step was to assess the present level of instruction provided in required courses. Again, classes were observed, this time in terms of information delivered. The co-chairs performed content analyses on the assignment handouts, highlighting the explicitly stated research skills and noting the assumed implicit research skills needed to successfully complete the assigned tasks. Each faculty member independently examined the Research Skills Inventory List and noted in which required class an assignment:

- *used a skill (expected that students already knew it)*
- *included a handout or involved a brief discussion about a skill*
- *included class-time instruction about a skill.*

Simultaneously, student focus groups attempted to perform the same task. They had a hard time remembering which class covered a particular skill, so instead they

identified at which grade level they thought they learned a skill. As with the faculty, different students had different experiences. Occasionally, a student would remind a peer about a particular assignment in which a skill was used. This kind of interaction pointed out the need for group processing - and the limits created by regression over time.

Students brought up the fact that they had learned several information literacy skills in middle school. Therefore, librarians at feeder schools were brought into the research process. They reached a consensus regarding which skills to require and agreed that additional skills could be taught beyond the minimum requirements. In a follow-up meeting with paraprofessionals working in school libraries, those minimum skills were not systematically addressed. However, the paraprofessionals learned what they were and informed the teachers at their schools so that they would incorporate them into the curriculum. In related research, grade point averages (GPAs) of the feeder school students were analyzed; it was found that those schools having a credentialed librarian graduated students who performed better their freshman year in high school.

The data were analyzed across sections of the same course (taught by different teachers), across grade level, and across department as well as within grade level and department. In some departments, variances in instruction were significant within courses; in other departments, a clear sequence of skills instruction and practice were observed. Where variances occurred, the department chair used the data to help calibrate instruction, at least within the same course.

Whose Problem Is It?

Students needed to improve their information literacy skills. They needed to learn them and practice them. Teachers needed to improve their teaching of these skills and the assignments covering them, and they needed to coordinate their efforts within and across disciplines. The LMT needed to facilitate coordination and ensure information literacy skills were integrated into research assignments. At another faculty meeting, these issues were discussed and possible interventions were brainstormed.

Based on that discussion and on the data analysis, the study group identified the following actions as the best means of meeting the study's goals:

- Develop a scope-and-sequence of instruction across the curriculum on information literacy.
- Develop assignments that precluded plagiarism.
- Develop and institute standard research and citation models.
- Develop curriculum and instructional aids to help students become information literate.

Developing Research Products

Both teachers and students loudly requested guides to help them in the research process. The LMT took the lead in the development of the following products.

- *Standardized bibliographic style sheets.* Updated guidelines were the most needed item, according to teachers. Consulting Modern Language Association (MLA) and American Psychological Association (APA) print and online documents, the LMT developed one-sheet guidelines for each, using a generic layout and an example for each source medium. Study group members reviewed and pilot-tested the guide sheets and modified them as needed. It was noted that a sample bibliography would be useful as an exemplar for students and that was added. All faculty agreed to use one of the two sets of guidelines for assignments, and the sheets were posted online on the library's Web page.

- *Research process and product rubrics.* The school was using rubrics routinely, and another action research group was developing a set of rubrics to evaluate oral presentations. Using the Kansas Study and work done by the California Association of Teachers of English (CATE), RSSG developed, pilot-tested, and approved two complementary rubrics, one for the research process and one for research products. Even issues of scale (1-6) needed to be ironed out; the 6-point scale was used to align with most other Redwood High School rubrics. Because plagiarism was such a big issue at the school, an explicit mention of that practice was included in the rubric; students couldn't get a passing "3" if resources weren't cited or if plagiarism was evident.
- *Research handbook.* A little-used handbook created by the English department in the 1980s existed but desperately needed updating. While the English department was approached to update this guide, it was decided that the LMTs should spearhead the effort. The Redwood LMT took the lead, aligning the research steps to the school's new *Research Skills Inventory List* and to the AASL standards. RSSG reviewed and modified the handbook as members pilot-tested it. Students gave valuable feedback, including thoughts about wording. Their suggestions were incorporated into the final product. A supplemental teacher's guide was also created to help faculty instruct students in research processes. RSSG designed the handbook as a consumable workbook with a separate page for each skill so that students and teachers could use each page as a research process focus worksheet. The final version of the handbook was given to all faculty and students and was posted on the library's Web page for easy access at school and home.
- *Library Research Web page (Rhsweb.org/library)* The need for a stable library Web page focused on providing research aid became apparent. Documents needed to be posted, and students needed Web jumpstarting as they researched. Up to that point, the library had kept Rolodexes of Web sites, and bookmarked individual computers with starter URLs. Now, that practice was inefficient. Beyond the typical information about the library, the site incorporated the research products listed above and provided Webliographies for various departments and their assignments. A separate listing of professional websites was developed for teachers (<http://www.rhsweb.org/intro>). As the subject-specific Webliographies became popular, departments that had not used the library for research much started asking for them, and their students used the library more as a result.

Teacher Education and Coordination

The first step in teacher coordination involved a faculty workshop during which all faculty members reviewed the findings of the instructional mapping of information literacy skills. Using a color-coded list (based on department practices) the faculty was able to negotiate grade levels, departments, and courses in which specific instruction and assignments would occur. Only one gap in information literacy skill instruction seemed to remain, videotaping, and that, we then realized, was occurring in most foreign language classes. (English teachers took on this skill informally.) In some cases, skills were incorporated in several courses, so teachers decided who would take the lead and who would reinforce the learning. Because of this explicit coordination, faculty trusted their colleagues more to share responsibility for information literacy instruction. Rather than carrying the burden alone, they were able to depend on each other to help students progress faster and deeper.

A separate workshop was given to help faculty evaluate Web sites and to construct plagiarism-proof assignments. Teachers were provided the URLs of several plagiarism Web sites, a list of typical topics, e.g., AIDS, Michelangelo, environment, and Steinbeck, and given a simulation to do in small cooperative groups: "Pretend you're a high school student who needs to write an acceptable research paper in 30 minutes." The teachers had fun and realized how important it is to evaluate resources and to craft assignments that draw upon higher-level thinking skills.

Another faculty workshop focused on rubrics. RSSG's work and that of the action research group developing a set of rubrics to evaluate oral presentations were dovetailed. Teachers saw how the process rubric, in particular, could be used with

students at the beginning of their freshman year to self-diagnose information literacy skills and to develop a plan for self-improvement.

Assessing the Results

How well did the plan work? The same assessment methods were used at the end of the school year as had been used at the beginning to establish the baseline. Among the findings were the following:

- Assignments included clearer and more explicit language about information literacy skills.
- Assignments within the same course were more uniform.
- Students and teachers used the research guides extensively.
- Classes of students asked more high-level questions when doing research.
- Web site evaluation was taught explicitly in the freshman computer course and practiced in that grade's science and social studies assignments.
- More attention was given to research process along with research product.
- More students completed research assignments, and work was more solid.
- Reading skills improved.
- Resources were cited more often and more accurately.
- Less plagiarism was evident.
- The LMT was more involved in the research process, including the assessment of research products.

Several outcomes furthered the action research results beyond original expectations. Faculty communicated more within and across department lines. Special education teachers became more involved in and accepted into the school's governance structure. Technology was incorporated to a greater extent into the curriculum. Feeder schools worked more closely with Redwood High School; at least one feeder school made information literacy a priority because of Redwood's efforts. Parents became interested in the project, and the LMT gave a workshop for them on Internet use.

At the end of the first year of action research, the following questions arose:

- How can more thorough and standardized assessment be conducted?
- How can data be broken down into smaller segments to a greater degree with more impact?
- How can coordination of research and instruction between departments be optimized?

Plenty of work remains to be done in this ongoing effort. It will be crucial to sustain reform efforts over time.

Impact of the Action Research

This action research project was effective for several reasons:

1. It grew out of teacher-perceived need.
2. The effort was student-centered.
3. Classroom teachers partnered with the LMT and exercised leadership in assuming responsibility for process, product, and impact.
4. The entire faculty was involved throughout and took ownership of the process.

The presence of a school-wide reform effort and district outcomes provided impetus and administrative support for information literacy instruction. This support included provision of a conference period for the co-chairs. The high-profile of rubrics within the school made it easier to construct and use them. Having national AASL standards and research studies on hand gave the action research credibility. Creating a simple-

to-use Web research page, with quick updates, has broadened access to research sources both within the school and at home. The incorporation of technology also strengthened faculty interest in improving their technology skills and infusing technology into classroom practice. More multimedia projects are being developed, for example, and the school was poised to develop its digital high school proposal.

By using action research methods, Redwood High School was able to reflect professionally and systemically about student achievement and educational best practices. In terms of library media programs, action research provided the objective credibility that was needed for teachers to buy into information literacy instruction. Moreover, the research led to practical products that helped students and teachers become more information literate - truly a win-win situation that can be replicated in other settings.

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13.1

WHEN LIFE INTERVENES

Lori (Tarkowski) Fetzer
Mayfield Junior School

"We agreed that the overall purpose of the project would be for students to make a connection between curricular areas, in this case science and reading. Students would begin to notice how their understanding and knowledge of different animals' physical and behavioral characteristics adds to their understanding and enjoyment of their reading."

Lori Fetzer

Mayfield Junior School is an independent Catholic School in Pasadena. It is governed by a board of trustees and is not part of a Catholic diocese. The following is Mayfield Junior School's mission statement:

"Mayfield Junior School implements the philosophy of the Holy Child schools.

We are committed not only to the religious and educational development of each child but also to maintaining a sense of community and family spirit.

At Mayfield each child is challenged to meet his or her potential."

Who Are the Students?

There are approximately 425 students in grades kindergarten through eight. The yearly tuition is \$7,950 plus a one-time fee of \$1,000 for new families. There are some students who come on scholarship or receive financial aid, but overwhelmingly the students are upper-middle or upper class. They come from families in which both parents are working in high-status jobs; the parents are frequently doctors, lawyers, accountants, or involved in the entertainment industry.

Mayfield Junior School's demographics do not reflect the extensive ethnic diversity found in Pasadena. About 25% of the students are of color. The school's stated policy is to recruit more diverse students and faculty, but this does not seem to be a major thrust. Diversity is greater during summer school when students from the city's public schools may attend summer sessions free of charge. They often are unable to achieve at the level of the other students attending the school, thus potentially reinforcing pre-existing stereotypes.

There are about 48 students per grade level. In grades kindergarten through five, there are 24 students in a classroom. There is a plan to further reduce class size, which would result in three classes per grade level in grades kindergarten through third. That plan is projected to go into effect in the next couple of years. In grades six through eight, students are divided into four groups of 12 called advisories.

Most of the students achieve at or above grade level. There is a sense of, "We want everyone to feel successful." Even though Mayfield Junior is not the kind of school that caters to the academically challenged, everything possible is done to help students who are struggling. A high percentage of the students receive tutoring or outside help, but the majority of students receiving tutoring outside the school setting are getting it in order to be competitive rather than to receive remedial help.

Lori says that to her it feels as though each day, when the children leave Mayfield Junior School, they are going to an additional school somewhere else. They are constantly taking equestrian, dance, or music lessons; they are getting all of the advantages.

Who Are the Staff?

Lori Fetzer, the library media teacher, feels her role as a teacher and collaborator in designing and implementing instruction is well accepted.

A certificated teacher and a paraprofessional staff the math and language arts resource centers. They determine whether students need remedial work or enrichment. In the centers, kindergarten through fifth-grade students meet with adults on a three to one basis.

Focus at the school is on providing an academically challenging and diverse curriculum. The school offers courses that one might expect to find in a high school. For example, the students create high-school level science fair projects. The school tries hard to be technologically up-to-date, to stay on top of what is coming down the pike. Specialists provide computer education. Students use the computer lab several times a week. The goal is to use the lab in connection with curricular projects. In the lab, students learn, for example, how to use a mouse, what a desktop computer looks like, and keyboarding skills.

Drama, orchestra, and choir are part of the regular curriculum. Specialists teach art, music, and physical education. The faculty tries to involve students in visual and performing arts at every grade level. Starting in kindergarten, the students perform plays. In seventh and eighth grades, electives are offered so students can choose to study drama, play a stringed instrument, or sing in a choir.

How Do People Work Together?

Patricia Benson, a third-grade teacher, is one of the teachers with whom Lori particularly enjoys collaborating. Patricia is a young teacher who is receptive and open. When Lori reads aloud to her third-grade class, Patricia is an attentive listener, a positive role model emulated by her students. During their interaction with Patricia's class, there is an obvious give-and-take relationship.

Parents are very involved in the school and, also, expect a lot from the school. The mothers especially give of their time to support the different programs. You see parents on campus every day doing all sorts of different things.

Lori has formed a good connection with the children's librarian, Roger Kelly, at the main branch of the Pasadena City Library. He lets her know when there are special programs. She tells him when the students have a research assignment, and she lets the children know she has talked to him and that he knows what their research assignment is. She tells the children the kinds of materials he will have available for them, sometimes materials that their school LMC doesn't have.

In What Kind of Facility Are They Working?

Upon entering the library media center (LMC), the visitor immediately sees a large round window looking out onto trees. In front of this is a sunken area for discussions and story telling. Other seating space is available at four round wooden tables and two rows of rectangular tables. The 2,346 square-foot facility is one long room plus an alcove.

One instructional computer station, 12 student computer stations, a LCD projector, and a screen compose one of the LMC's activity areas. The screen located here is used when students are seated at the computers and are following a directed lesson or doing research. There is another screen in the reading area for use when students are just viewing a computer demonstration.

In an alcove, there are five student computer stations and a microfiche reader (which tends not to be used.)

With What Kinds of Resources Are They Working?

Lori feels the LMC collection needs improvement, especially the history materials. She estimates that about one-third of the collection needs to be weeded and replaced. She has worked a great deal on the reference and science collections. Lori generally focuses on developing a collection that meets the needs of the classroom teachers. However, she is currently concentrating on the young adult fiction section and trying to draw the older students in as independent readers.

English is the primary language of all the students. They receive instruction in Spanish from kindergarten on. There aren't a lot of materials in the LMC to support the Spanish language program. Lori feels she continually struggles with the need to find easy materials in Spanish that are interesting to students at the upper-grade levels.

Alexandria is the online computer system in use. The 12 student stations have the web version. An online encyclopedia, Sirs Discoverer, and InfoTrac are other technology resources.

A few videos are housed in the LMC, but most teachers have chosen to keep their own classroom collections despite Lori's offer to organize and inventory them in the LMC.

The total LMC budget is approximately \$15,000, and that is divided into three categories: supplies, books and periodicals, and technology. Lori confesses she usually exceeds the technology budget. She feels she should also be spending more than she does on books.

When students use the periodical index, they can find many of the articles in magazines in the LMC. The LMC subscribes to 43 magazines, 23 of which are for children and 20 of which are professional titles for the classroom teachers, library media teacher, and administrators. The magazine collection does not circulate.

13.2

LORI'S STORY

Each year third graders study animals, particularly mammals. The last couple of years Patricia Benson, one of the third-grade teachers, has had her students research animals, then, as a culminating activity, create and present a "living zoo." This is an activity in which the students dress up as their animals and deliver a short talk to an audience of parents about what they are.

Having helped the students prepare for the "living zoo" experience by introducing them to various library resources and knowing that Patricia had plans to begin a fables unit in her reading class, I was intrigued by a lesson I saw in the November 1999 edition of *Library Media Activities Monthly*. This lesson involved comparing animals in fables to their real-life counterparts. I made a copy of the idea and put it in Patricia's box with a short note about how I would love to collaborate on a lesson similar to the one presented.

Time passed and I didn't hear from Patricia. The school is so structured and everyone's time is so heavily scheduled that the time it takes to collaboratively plan, implement, and evaluate a unit needs to be found creatively. There is no time for co-planning during the regular school schedule. Still, I was excited about being involved in making the transition from the research to the fable activity so I asked Patricia if she had started her fables unit yet. She told me she was planning to begin the unit in a couple of weeks. We decided that we would get together and go over the lesson as it is presented in *Library Media Activities Monthly*.

At our meeting, I reminded her of the previous lessons the students had in the library regarding finding information about an animal. We discussed what was necessary for reinforcing those skills. We agreed that the overall purpose of the project would be for students to make a connection between curricular areas, in this case science and reading. Students would begin to notice how their understanding and knowledge of different animals' physical and behavioral characteristics adds to their understanding and enjoyment of their reading.

We set up a timeline for the classroom and LMC activities. We decided that students would be introduced to fables in both the LMC and the classroom. They would have time to read and explore different sources of fables.

In the Library Media Center

After reviewing a variety of fables, we planned to direct students to select one fable each. On a worksheet, they would record the author and title of the source in which they found the chosen fable, as well as the title of the fable. On this same sheet, students would record physical and behavioral characteristics of one of the animals as it is portrayed in the fable.

Students would review their knowledge of sources of information about animals. Then, working individually, they would use those sources to find at least five

interesting facts about the animal they chose. Students would need to be reminded to record the author and title of each source they used in their research.

Students would use their note sheets to write a modified bibliography.

In the classroom

Students would write a poem comparing and contrasting the fable animal with the real-life animal.

Students would assemble all the pieces of the project: the fable selected, the fable animal's characteristics, their interesting facts, and their poem, into one display.

In the computer lab

Students would type titles for their projects, type their poems, type their interesting facts, and print out a computer graphic of the animals they chose, if possible.

Implementing the process

We began the unit with a modern fable from the book *Squids Will Be Squids* by Jon Scieszka and Lane Smith (Viking, 1998). Students enjoyed the story and responded enthusiastically to questions and a discussion about fables. The next week, after a review and a short lesson, students went to work choosing a fable of their own. As they began, one student asked if there were ever people in fables. I said I didn't think so, but as they read fables they found people in them. We enjoyed learning together.

Most students had an easy time choosing their fable. However, I discovered they encountered difficulty with authorship since many fables are retold and no author is given credit. Sometimes there was an editor of an anthology of fables or the name of the illustrator only. Children had many questions about how to handle this.

The students wrote physical and behavioral characteristics of the animal as portrayed in the fable. Some students had trouble coming up with this kind of information. With some guiding questions, all students were able to complete at least five or six characteristics.

Because the students had already done animal research, they were fairly competent users of the LMC resources available to them. Children who had chosen more obscure animals were frustrated to find that the LMC did not have an entire book about their chosen animal (for instance, the crane, peacock, hummingbird, heron, or raven). However disappointed, the students did remember to use other resources: general encyclopedias, *Encyclopedia of Amazing Animals*, SIRS Discoverer. This was also a good opportunity to help them think about broader categories. Again, with guided questions, students were able to find books about birds and then their specific birds within those books.

Some students had trouble taking notes. We discovered that third graders, when told to find an interesting fact, are unsure of their choices and need lots of affirmation even after discussing what an interesting fact is. Next time I do this unit, I will model for them by finding a book, reading a page out loud, and then either telling them what I found interesting or asking them to tell what they found interesting. With fourth-grade students I emphasize, "What do YOU want to know?" I could have done that more here, especially since they had already done a project on animals.

Life Intervenes

At this point in the project, the teacher, Patricia Benson, had an emergency C-section and delivered a beautiful baby girl 6 weeks early! The project came to an abrupt end as the long-term substitute took over. Because this was an emergency situation, no lesson plans had been left. The substitute teacher knew she would be there for seven weeks and forged her own path.

We did not have completed projects to evaluate. The students' library research was complete, however, and I did discuss with the students what I saw and read. We discussed their ability to find the author and what to do in the event that there was no author mentioned. We talked about finding information in the LMC and the different resources that they had used. Because of the trouble some students had using the patron catalog to find specific birds, we had a lengthy conversation about the patron catalog and how it works. We had a shorter discussion about other resources and also about their ability to take notes in their own words.

I try to put a positive spin on everything for the students. I just communicated to the students what was happening and moved on. I told them that, because they weren't going to continue studying fables in the classroom, we would do something else that went along with what they were doing. We moved from doing the fables project to doing peer interviews to discover reading interests and for them this was satisfying.

I feel that the students' skills using library resources were enhanced, as was their knowledge of fables and animals. A completed project would have enabled the students to better articulate the connections between reading and science (as was the goal) and would have included bibliography skills and computer production skills. Nevertheless, I believe students enjoyed and will remember this lesson.

I didn't have a strong feeling of disappointment that we weren't able to complete the collaboration. There are so many opportunities to work with that particular teacher and to fit into the third grade curriculum. The project before this one was brought to completion and the one after this will be. It would have been fun to get into the fables more, but there's always another chance.

13.3

PLANNING FOR RESULTS

Lori Fetzer

The first step in planning instruction is to determine what is to be achieved, that is, what we want students to know and be able to do. This involves determining which educational standards will need to be met. Second, decisions must be made as to what is acceptable evidence of student learning. The criteria need to be shared with students so they know exactly what is expected of them. The third step, which can only realistically be accomplished after the prior decisions have been made, is to decide upon the instructional strategies to be used and the activities in which students will engage. The plan for Lori's lesson follows; observations regarding how standards are met are included.

Identify Desired Results

Information Literacy Standards

Standard 1: ...accesses information efficiently and effectively.

The students had recently researched information about animals in order to create and present a "living zoo," an activity in which the students dressed up as the animals they researched and delivered short talks about them to an audience of parents. Therefore, students only needed to review the resources available in the LMC.

Children who had chosen more obscure animals to research were disappointed to find that the LMC did not have an entire book about their chosen animal. Their frustration provided a good opportunity to help them think about broader categories, an effective technique when an initial search doesn't provide sufficient information. With the help of guiding questions, students were able to find books about birds and then, using indexes, their specific birds within those books.

Standard 3: ...uses information accurately and creatively.

Students were to write poems comparing and contrasting the fable animal with the real-life animal.

Students were to assemble all the pieces of the project, the fable selected, the fable animal's characteristics, their interesting facts, and their poem, into a display.

(Note: The preceding two activities did not take place due to the teacher's emergency leave of absence.)

Standard 4: ...pursues information related to personal interests.

When told to find an interesting fact, students were unsure of their choices and needed lots of affirmation even after discussing what an interesting fact is. (Students might have benefited from a modeling of the process.)

Standard 5: ...appreciates literature and other creative expressions of information.

Students were introduced to fables in both the LMC and the classroom. Lori began the unit with a modern fable. Students enjoyed the story and responded enthusiastically to questions and a discussion about fables. They then had time to read and explore different sources of fables and easily located a fable they liked.

Part of the original plan was for students to become aware of how their understanding and knowledge of animals' physical and behavioral characteristics adds to their understanding and enjoyment of their reading.

Students were to write poems comparing and contrasting the fable animal with the real-life animal.

Standard 9: ...practices ethical behavior in regard to information and information technology.

On worksheets on which they took notes, students recorded the author and title of the source in which they found the fable they had chosen. Students were to create a bibliography of the sources used. They encountered difficulty with authorship since many fables are retold and no author is given credit. Sometimes there was an editor of an anthology of fables or the name of the illustrator only. Students had many questions about how to handle this.

English-Language Arts Content Standards for California Public Schools

As a private school, Mayfield Junior is not held accountable for meeting the state's educational standards. However, the following English-language arts standards are the ones that most closely match some of the designated outcomes of this project.

Reading Comprehension

Standard 2.2: Ask questions and support answers by connecting prior knowledge with literal information found in, and inferred from, the text.

Students were to compare and contrast the factual information learned about animals during a previous unit of study with the characteristics of the animals in the fables.

Literary Response and Analysis

Standard 3.3: Determine what characters are like by what they say or do and by how the author or illustrator portrays them.

In order to write poems comparing and contrasting the fable animal with the real-life animal, students would have needed to determine what the animal characters were like from the reteller or illustrator's portrayal of them.

Science Content Standards for California Public Schools

While one of the purposes of this unit is to integrate English-language arts and science, and students researched scientific information, none of the specific science standards for third grade were met. Again, because Mayfield Junior is a private school it is not held accountable for meeting the state's educational standards.

Determine Acceptable Evidence

Students will create a display including all the pieces of the project: (1) The fable selected will be of the students' own choosing. (2) The depiction of the fable animal's characteristics will demonstrate the students' ability to determine what characters are like by what they say and do and by how the author or illustrator portrays them. (3) The facts used to create the display will demonstrate the students' ability to access, select, and use information. (4) The poems comparing

the animal characters in the fables with the real-life animals will demonstrate the students' ability to use information accurately and creatively.

Plan Teaching and Learning Experiences

Students will need to know...

- Characteristics of fables
- Location skills using electronic resources
- Location skills using indexes
- Keyboarding skills
- Animal characteristics
- Bibliography format

Students will need to be able to...

- Locate information
- Keyboard
- Compare and contrast
- Write a poem
- Create a bibliography

Responsibilities for Teaching and Learning Experiences

1. Determine the overall purpose of the project. (classroom teacher and library media teacher)
2. Set up a timeline for classroom and LMC activities. (classroom teacher and library media teacher)
3. Introduce and read aloud fables. (classroom teacher and library media teacher)
4. Review the kinds of resources available in the LMC. (library media teacher)
5. Provide time for students to select fables, search for information, and take notes. (classroom teacher and library media teacher)
6. Ask guiding questions. (classroom teacher and library media teacher)
7. Assist students with note taking. (classroom teacher and library media teacher)
8. Teach comparing and contrasting skills. (classroom teacher)
9. Teach the characteristics of a poem. (classroom teacher)
10. Evaluate the project. (classroom teacher and library media teacher)

(Note: Some of the above activities were not completed due to the classroom teacher's emergency leave of absence.)

14.1

THE LIBRARY MEDIA TEACHER AS LEADER AND LEARNER

Debbie Abilock
Nueva School

"I see my role at the school as modeling inquiry-based projects, often in an online environment and always involving information literacy skills, as well as guiding my team in providing resources and services to support the school's curriculum." Debbie Abilock

Who Are the Students?

Nueva, founded in the mid-sixties, is a private school whose vision is to "create a dynamic educational model in which gifted and talented children learn to make choices that benefit the world." An I.Q. test is used as part of the admissions procedure, not as a definitive measure but as one predictor of success in the challenging school environment. Children applying to enter the school make an extended visit in a classroom, giving teachers an opportunity to assess how they function in their peer group. Students must be able to tolerate ambiguity and high degrees of aural and visual stimulation; they need to be self-directed in pursuing their own interests.

About 18% of the 315 students, preschool through eighth grade, receive some kind of financial aid. Because of the high cost of living in the Bay Area and the obligation to pay competitive salaries, tuition ranges from \$11,200 for preschool students to \$18,900 for eighth-grade students. The board would like to increase diversity by creating an endowment that will support salaries while maintaining moderate tuition increases and a strong financial aid program.

The school is located close to Silicon Valley, and this is reflected in the student body. In accord with the area's demographics, the two minority groups most heavily represented in the student body are Asian- and Indian-Americans (from India). Most of the children have computers at home, and even some of the youngest are adept at using technology tools.

Equity of access to technology is something about which the school is concerned. The technology, library, and curriculum department (TLC) works to find and provide home computers for families on financial aide so that all students may fully participate in the school's curriculum.

Students completing the educational program at Nueva have experienced environmental service projects on the school's 33 acres of woodland, a trip to a working dig in the Four Corners area of the Southwest, and a home stay in Japan, all in connection with integrated thematic studies.

Who Are the Staff?

The TLC is a newly created department that unites the library program, all aspects of technology, and the curriculum into a coherent whole. Debbie Abilock, the curriculum coordinator, is a library media teacher and TLC supervisor. Marilyn Kimura, a full-time member of the staff, has taken classes towards her MLS. Other staff in the department are two full-time technology integration specialists (one of whom is also the network administrator), a part-time cataloger,⁹ and four part-time support assistants. This team meets formally and informally to assess and allocate resources, report on curriculum projects, solicit help or advice from other team members, and discuss long-range goals. (Author's Note: In order that the terminology used be consistent with that used in other interviews, I will refer to this department as the library media center (LMC) with the understanding that imbedded in the department's approach is a high level of integration of resources and an equally high level of collaboration.)

Debbie feels that being the coordinator puts her in a central position to highlight the critical role that library media teachers play in designing, implementing, and evaluating instruction. It also allows her, along with the others in her department, to ensure that technology literacy and information literacy are fully integrated into the curriculum. As an administrator who also teaches she teams with other staff throughout the school to implement curriculum projects.

Like the other members of the middle school staff, she is an advisor (with the Japanese teacher) to a group of eleven middle school students, a common model in independent schools where faculty members play multiple roles.

The LMC support assistants are responsible for such varied duties as working at the circulation desk, installing and updating software, responding to help desk¹⁰ messages, troubleshooting technology problems in both classrooms and offices, helping individual students locate materials, and even reading stories to pre-kindergarten or kindergarten classes. Several parent volunteers regularly process new books, help with circulation and reshelving, install software, and work on other special projects.

The lower-school technology integration specialist, Kathryn Hunt, oversees pre-kindergarten through fifth grade. Mark Basnage, the network administrator and middle school technology integration specialist, covers grades six through eight and the administration's technology needs. In addition to supervising the summer school program, Marilyn Kimura spends much of her time supporting staff information requests and co-administering Literary Club, a program in which over 40 trained parent volunteers, the head of the school, and many teachers participate.

Over the past few years, because of administrative changes, reconfiguration of levels, reduction of class size, and retirement, Nueva has had to integrate many new staff members into the school and work with them in adapting to the school's philosophy. This has afforded all staff the opportunity to reflect on teaching practices, goals for children, strategic planning, and assessment. In 1998, the school redefined its mission and vision statement with input from all sectors of the community, a process that revitalized the school.

⁹ The cataloger has taken basic and advanced cataloging courses and worked as a cataloger under the supervision of a librarian for four years.

¹⁰ This refers to a phone extension on which people leave messages for the team about equipment problems, requests for assistance, and questions.

How Do People Work Together?

An important part of the structured planning for collaboration happens in paid planning meetings over the summer. Various combinations of LMC staff attend these curriculum development meetings. The faculty is also paid for a staff work week before the school year begins, five to six staff development days and five to six parent conference days during the school year, and a work week at the end of the school year. During these periods, teachers and LMC staff collaborate on curriculum development, engage in professional growth and staff development activities, conduct parent conferences, and meet for administrative tasks. LMC staff provide small-group teaching and one-on-one coaching as needed.

Recently, each member of the integrated library and technology department spent a day shadowing a peer and recording the tasks that were done in five-minute increments. Each pair met to group these tasks into job categories, record them on a spreadsheet, and analyze the results. Sharing the resulting information in a pie chart format will enable the entire team to learn where time is actually spent and will focus a later discussion of school needs related to priorities. The Nueva staff is being asked to fill out an online survey about the department in order to assess overall effectiveness in this first year of operation.

The number of curriculum projects infused with technology tools and research skills has increased rapidly since the redesign of the department and advent of wireless laptops. For example, during the presidential election Debbie worked with the middle school humanities team to develop a curriculum called "Presidential Election 2000: Who Holds the Power?" which examined the various stakeholders in the United States in terms of their impact on issues and media. In addition to several online activities on media literacy, Debbie conducted an Internet research project called "You Are Shocked" as an adjunct to the humanities curriculum. It asked students to make connections between their summer work (reading a newspaper each week, investigating the census) and what they were learning in class ("Presidential Election 2000," rhetoric, research they had conducted on a controversial topic, search strategies, analysis of Web resources). They answered eight questions by doing research online, which helped them expand their knowledge of an issue and of voting patterns of college-age students. Their performance task was to write a persuasive letter supported by logical reasoning and documented data aimed at persuading young voters to become more politically active. Students were not expected to be able to do this without assistance; most of them sent Debbie seven to ten emails apiece asking for clarification or help. A variety of approaches were acceptable; many were creative or unique. There were three goals:

- Increase students' ease and experience with online searching
- Teach the purpose and format of a bibliography
- Teach critical thinking through:
 - Logically reasoning through an issue
 - Analysis and use of supporting data or evidence
 - Evaluation of Web resources
 - Construction of a persuasive argument

The project and results can be seen at
<<http://nuevaschool.org/~debbie/library/cur/hum/power.html>>.

An explicit goal of the LMC's extended staff is to teach students and staff together. Examples of other integrated projects which feature both technology and research components include:

- "Bread and Quilts: Threads through Cultures" - Second graders and their teachers create quilt patterns using Stagecast software. They research quilts from particular historical periods in order to write exhibit labels for a culminating display in a Quilt Museum.
- "Journeys: Exploring and Building Community" - First graders and their teachers study ants, butterflies, and Greek mythology as part of an in-depth study of communities. They create a class Web site to communicate what they have learned. <<http://nuevaschool.org/firstgrade/>>
- "Change over Time" - As part of the archaeology and geology curriculum, fifth graders and their teachers develop WebQuest projects that examine aspects of the ancient American Southwest. <<http://nuevaschool.org/Southwest/>>
- "Oak Woodlands Restoration" - Fourth and fifth graders enter information on plants into a searchable Web-based database <<http://nuevaschool.org/~debbie/nuevapplants/>> to support a restoration project on the Nueva campus' oak woodlands. Eventually math and science specialists, the LMC's staff, and classroom teachers will learn to teach students to use Graphical Information Systems (GIS) mapping software in conjunction with this database. This will enable them to input data about the property, the first step in making informed decisions about restoration and environmental impacts.

Recently Debbie contributed a chapter to *Technology in its Place; Successful Technology Infusion in Schools* which described two classroom projects in research-supported learning and teaching, one focusing on global warming and the other on turn-of-the-century history. In both cases, deep, ongoing collaboration between a library media specialist and classroom teachers spawned curricula that guided student researchers to construct knowledge collectively about the topics under discussion. Abilock highlights the important contribution of global, networked computing to the realization of curricular aims."

In What Kind of Facility Are They Working?

The LMC operates from a 2,000-square-foot room (about the size of two average classrooms). In the center is a reading area with two sofas, chairs, bookcases, and a fireplace. The rest of the room is crammed with bookcases, two long tables for reading, a circulation area, computer stations for student use, and a high-end technology area with several creation stations (high-performance computers) for media editing and publishing. Its current location at the center of a reconverted mansion contributes to its sense of being at the heart of the school. The long-range plans for the school include the construction of a new facility.

With What Kinds of Resources Are They Working?

A significant amount of discussion revolves around the allocation of resources. By combining budgets and melding the library and technology into one department, LMC staff are confident that there are fewer overlaps in resources and less redundancy of services. Currently, the entire networked campus is well supported. However, administrative technology support and development and alumni web services are not budgeted line items. Further, replacement of hardware is considered a capital expense, not an ongoing line item in the budget. These will be recommended changes for the 2002-2003 school year as part of the department's long-range plan.

The department is exploring ways of making computing tools ubiquitous throughout the school. In addition to a cluster of eleven desktop PC's for research use in the LMC and small clusters of desktop Macs in classrooms, there are three laptop carts strategically stationed throughout the school. Each cart contains 20 wireless computers that are signed out hourly for class use. All children and adults associated with the school receive a free e-mail account.

¹¹ John F. LeBaron and Catherine Collier, ed. *Technology in its Place; Successful Technology Infusion in Schools*. San Francisco: Jossey-Bass, 2001. p. xiii

The school's goal of enriching help resources available on its Web pages has been fueled by Debbie's nationally acclaimed research page "Choose the Best Search for Your Information Needs," <http://nuevaschool.org/~debbie/library/research/adviceengine.html>, which gets about 15,000 hits a day, representing about 2,500 distinct users. Within the school it is part of the Help pages <http://nuevaschool.org/~debbie/library/overview.html> containing curriculum bibliographies and other advice for students and teaching staff when department members are not available to provide support.

Along with her son Damon, a software engineer, Debbie has created *NoodleTools: Smart Tools for Smart Research* <<http://www.NoodleTools.com>>. It contains NoodleBib, an interactive composer that automates the confusing process of creating a correctly formatted and punctuated bibliography. It also contains NoodleQuest, a wizard that provides search strategies for beginning and advanced searchers. Currently, this site receives about 110,000 hits per day representing about 8,000 distinct users.

Accessible through SIRSI's Web-based catalog are the approximately 14,000 volumes housed in the LMC. Debbie feels the print collection is inadequate to meet the needs of the changing in-depth curriculum for gifted and talented students.

What Is the Overall Library Media Center Program?

Limited space in the LMC necessitates team teaching within classrooms to implement technology-rich, research-based curriculum. However, opportunities for students to use the print-based materials housed within the LMC are essential. Pre-kindergarten (four-year-olds) and kindergarten students come to the LMC once a week to listen to stories and to choose new books for pleasure reading and topical studies. A secondary goal for early childhood students is to help them learn LMC routines: (1) how to determine what you want, (2) how books can be located through the online catalog, (3) where books are located, and (4) how books are checked out. Early childhood teachers and LMC staff work side-by-side to show children how to find materials and resources. This is the beginning of the teamwork aimed at creating independent learners and lifelong readers.

Opportunities to select reading material continue throughout the grades. First graders come into the LMC once a week on a scheduled basis to select books and to meet their older Book Buddies from fourth-grade classrooms. Pairs of younger and older students refine their book selection skills and expressive reading as they share read-aloud time together.

Older students participate in an activity called Bookshare. Its object is to tell enough about a book so that the audience will want to read it, or, occasionally, tell why they might not want to read it, or provide advice to prospective readers about a slow beginning or a scary or sad part. The skills being practiced are summarizing, evaluating, and making pertinent comments. There is emphasis on learning to make a short presentation, without telling the whole plot, thus enticing others to read the book. Some children find it difficult to synthesize and Debbie might ask, "So, can you give us the big picture in just one or two sentences?" Conversations about books with similar themes or by the same author often occur.

The fifth- through eighth-graders come to the LMC once at the beginning of the year for an orientation on using its resources. Otherwise, they come in conjunction with the work they are doing, during recess, or before or after school rather than on a regularly scheduled basis.

Over twenty years ago Debbie created a program called Literary Club that is composed of reader-response literature-discussion groups. The major goals are to teach critical thinking through literature and to foster a love of reading while building a community of readers that includes the children, their parents and the faculty. Children meet in combined grade levels. The groups are facilitated by parents and teachers mentored by Debbie and Marilyn. Inquiry-based discussions are student-driven, following the curiosity of the group. The facilitators establish a climate in which children wonder and think deeply about something that genuinely interests them in a book, short story or poem. It is a chance for children to articulate their insights, thereby promoting literacy through listening, speaking, writing, and reading.

According to a survey done by a fifth-grade student at the school, 90% of the students consider reading their top hobby. Literature clubs, sustained silent reading (SSR), a tremendous commitment by parents to the importance of reading aloud to children, and many other factors contribute to the popularity of reading.

What Are Some of the Library Media Center's Policies?

On the Nueva website an acceptable use policy is posted in English, Spanish and Japanese and linked to the LMC selection policy. Both policies strongly affirm the school's belief that students must learn to be responsible for their own behavior and to be critical thinkers. Debbie and the rest of the LMC department teach students and staff various techniques for evaluating the quality of resources they find, e.g., by identifying the source of a website, determining the point of view, and assessing the validity and usefulness of information. Because of the emphasis on student responsibility and critical thinking, the school uses no Internet censoring devices or filtering software.

Personal accountability begins in kindergarten when children decide how many books to check out at one time based on the number of books for which they feel they can be responsible. While children are reminded when they have an overdue book, they may continue to check out others with an understanding that they will locate and return or renew overdue materials. Children with a parental permission slip may check out one CD at a time for a one-week period from the CD-ROM Evaluation Library and may also borrow magazines or books "published" by student-authors at Nueva. As they get older, students are encouraged to step behind the desk to investigate their own overdues and check out materials for themselves and others. Policies are openly discussed and subject to reexamination by all stakeholders, including board, staff, parents and the students themselves.

14.2

DEBBIE'S STORY

The science program at Nueva is "hands-on, minds-on, feet-in-the-mud," which means that it consists of experiments, simulations, and activities from which students construct an understanding of science concepts. As students grow older, additional time is allocated to extending and generalizing the knowledge gained from experiential learning and applying it to topics relevant to public policy. The choices of topic made by the science specialist, Molly Lusignan, such as plate tectonics or acid rain, vary from year to year based on timely events, curriculum developed by homeroom teachers, or students' interests. As a result I have learned to be opportunistic and flexible in order to integrate my own information literacy goals into others' goals or passions.

Recently we have been co-planning, co-teaching, and co-evaluating a long-term environmental education project in which the fourth- and fifth-grade students, 70 in all, will impact the property on which the school is located. They will, for example, restore native plants and determine which plants attract which animals. The project fits in well with the current fourth- and fifth-grade themes, "Change over Time" and "Diversity." We are ambitious---we expect it to prepare students to make real-life decisions about our local environment now, and we hope it will inform their thinking about global environments as adults.

In keeping with our own thorough, deliberate planning process, Molly and I talked about this project for a year before it actually began. A highly-experienced science educator, Molly attended a workshop during the summer with the forestry service, and that helped her figure out her specific focus. She has begun to involve staff throughout the school, including middle school science and lower school homeroom teachers. I rely on teachers for their expertise. For example, Molly and I had spent hours doing online research, sifting through websites to locate authoritative databases in which students could search for the information they need. Providing links to information that supports the school's curriculum is one part of my collection development role. Even more important is teaching the necessary thinking processes that students need to learn in order to eventually locate and analyze resources on their own.

The projects that Molly and I have done together have taught us how to give each other the space and time needed to do a good job. We know we are both hard workers and that when we undertake a project we will both try to do it well. We've learned that collaboration begins with hard work and a common vision, yet we recognize that we can be honest with each other and disagree without creating hurt feelings.

One of the things I have learned about Molly that I feel has made all the difference in the world in our relationship is that, when a new idea is presented, she is initially absolutely quiet. When I first began teaming with her, I thought that this silence meant "Oh, she thinks this is a stupid idea." I have since learned this is not true. Molly is simply thinking, and I have learned to give her the time to do so. Our many reflective conversations have taught me that taking a leadership role in collaborations

means being open to continuous learning about yourself, the adults with whom you collaborate, and your students.

Our goal is for students to learn to make judgments about which are the best plants to grow on the school grounds and which are the best animals to attract. We need to determine, for example, which plants need sun, which plants need shade, which colors would be most attractive, and which plants and animals can live together.

Gathering resources will help us determine the scope of what we will ask students to do. Molly gave me a carton of her own books from her classroom. They ranged from children's picture books to adult field-identification guides. From looking at websites, these books, and other resources available in or purchased by the library media center, Molly and I will determine the activities and lessons. Some information can be located easily. Other ideas or conclusions will have to be extracted from several sources. Through student observation, data will have to be collected about plants and animals currently on the grounds. Anticipating the level of difficulty we expect students to encounter is an essential component of a good project.

When Molly teaches the science process, she coaches all students to visualize the concrete steps that they need to take to answer the questions posed by a hypothesis. They formulate criteria for collecting data, devise a procedure, and develop a materials list and timeline. Similarly, as we help students design a research plan, they identify likely sources, construct Boolean search strings, and create to-do lists. Students typically are eager to forge ahead, while we attempt to slow down the process so as to ensure clarity and rigor. I take the lead in refining our understanding of the connections between these two similar problem-solving processes. However, it is our collective knowledge that results in substantial benefits to students in terms of transfer of learning from the immediate project to an understanding of how to tackle similar life questions.

A projected component of the fourth- and fifth-graders' study of the local environment is outreach to nearby schools. While Nueva draws students from throughout the Bay Area, we struggle to maintain a diverse population given the affluent area in which we are located. By planning for students to interact with different kinds of people in environmental awareness projects, we hope to devise ways to give back to the community. In a large former garage that has been converted into a hands-on science lab, Nueva students will docent other children, including students from public schools, through student-created exhibits. Students will demonstrate their synthesis of the information they have studied by teaching others. It will be an authentic assessment of the depth of each student's understanding. The sixth-century B.C. Chinese philosopher Lao-tse wrote, "Of a good leader, when his task is finished, his goal achieved, they say, 'We did it ourselves.'" Molly and I will know that we have been good leaders when we watch those we have coached become leaders themselves.

Individually and together we will pause at milestones to reflect on our participation and learning: Why were some sources better than others? How effective was our timeline and organization? How well did we think on our feet? What can we do differently? Each time we work together we ask ourselves these and other questions so we can learn and grow.

14.3

PLANNING FOR RESULTS

Debbie Abilock

The first step in planning instruction is to determine what is to be achieved, that is, what we want students to know and be able to do. This involves determining which educational standards will need to be met. Second, decisions must be made as to what is acceptable evidence of student learning. The criteria need to be shared with students so they know exactly what is expected of them. The third step, which can only realistically be accomplished after the prior decisions have been made, is to decide upon the instructional strategies to be used and the activities in which students will engage. The plan for Debbie's lesson follows; observations regarding how standards are met are included.

Identify Desired Results

Information Literacy Standards

Standard 1:...accesses information efficiently and effectively.

To facilitate access to information, Debbie and the science specialist sifted through websites to locate authoritative databases. Then Debbie linked the most useful websites they found to the LMC website.

Gathering resources, including books from the science specialist's classroom, LMC resources, and websites, helped Debbie and the science specialist determine the scope of student activities. By familiarizing themselves in advance with the resources available, they were able to select activities in which students would be successful.

In order to be prepared to give students the level of help they needed as they looked for information, Debbie and the science specialist tried to anticipate the level of difficulty students would encounter. Students were able to locate some information easily. Other ideas or conclusions had to be extracted from several sources.

Standard 2:...evaluates information critically and competently.

Students developed criteria for collecting data. They made real-life decisions based on the information they found. They determined, for instance, the best plants to attract suitable animals to the school grounds.

Standard 3:...uses information accurately and creatively.

The accuracy of the students' decisions was tested as they observed how successfully the plants they selected and planted thrived and to what extent they attracted the desired animals.

Standard 9:...participates effectively in groups to pursue and generate information.

In a hands-on science lab, participating students conducted other students, including some from public schools, through exhibits the participants had created. This experience exposed them to people of diverse backgrounds and provided them an opportunity to perform a community service.

Science Content Standards for California Public Schools

As a private school Nueva is not held accountable for meeting the state's educational standards. Nevertheless, the following science standards are being met.

Standard 3.b: Students know that in any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.

Standard 3.c: Students know many plants depend on animals for pollination and seed dispersal and animals depend on plants for food and shelter.

The students restored native plants and determined the best plants to attract suitable animals to the school grounds.

Determine Acceptable Evidence of Learning

Based on information from their research, students will select and restore native plants that attract animals suitable to the property on which the school is located. In a hands-on science lab, they will conduct other children, including students from public schools, through student-created exhibits that demonstrate that, in any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all. Additionally, the exhibits will demonstrate the mutual dependency of plants and animals.

Plan Learning Experiences and Instruction

Students will need to know...

- Information about native plants and animals
- Internet searching strategies

Students will need to be able to...

- Develop criteria for collecting data
- Develop a list of needed materials
- Develop a timeline
- Design a research plan
- Identify likely sources of information
- Construct Boolean search strings
- Collaborate with others
- Create an effective oral and visual presentation

Responsibilities for Teaching and Learning Experiences

1. Attend a Forestry Service workshop. (science specialist)
2. Gather resources. (science specialist and library media teacher)
3. Plan the unit of study. (science specialist and library media teacher)
4. Coach students to visualize the concrete steps that they need to take to answer the questions posed by a hypothesis. Develop criteria for collecting data, devising a procedure, and developing a materials list and timeline. (science specialist)
5. Coach students in designing a research plan, including identifying likely sources, constructing Boolean search strings, and creating to-do lists. (library media teacher)
6. Provide time for students to search for, evaluate, synthesize, and present information. (science specialist and library media teacher)
7. Evaluate student work. (science specialist and library media teacher)

15.1

PERSPECTIVES ON RECENT RESEARCH: REFLECTIONS OF THE AUTHOR

Shirley Weisman

Visiting and interviewing library media teachers throughout California has been inspiring! I've met library media teachers who are educational leaders in their schools and, often, in their districts and communities. They have a major influence on how curriculum is delivered to students. What has enabled some library media teachers to create viable LMC programs in what many view as California's less than supportive environment? What can research tell us?

During 1998 and 1999, the Colorado (2), Alaska, and Pennsylvania studies on the impact of school library media centers (LMCs) on academic achievement were conducted.^{12 13 14}

There were some minor differences among these studies; however, all three were based on Colorado's 1998 questionnaire. They all identified the specific elements of LMC programs and resources that positively impact student achievement. The following aspects of LMC programs were found to be predictors of academic achievement in at least two, if not all three states:

- Level of LMC program development (e.g., staffing level, collection size, expenditures)
- Levels of LMC program usage
- Collaboration
- Technology (e.g., school-wide networks, access to licensed databases, access to the Internet)

Each of the studies confirms that the relationships described between LMC programs and resources and student achievement are not accounted for by other school differences, such as teacher-pupil ratio, teacher or student characteristics, or per pupil expenditures. Furthermore, these relationships cannot be accounted for by community differences such as adult educational attainment, socio-economic differences, or ethnic demography.

A major reason why I undertook the writing of this book was to use the power of story to demonstrate how library media teachers and classroom teachers, working together, facilitate the achievement of information literacy and curricular standards. When I began, I hadn't read any of the above studies. It wasn't until I was well into the book and looking for research that would either support or refute my own observations that I located and read them. I was pleased to learn that current respected research does,

¹² Lance, Keith Curry, Christine Hamilton-Pennell, and Marcia J. Rodney. *Information Empowered: The School Librarian as an Agent of Academic Achievement in Alaska Schools*. Juneau: Alaska State Library, 1999.

¹³ Lance, Keith Curry, Marcia J. Rodney, and Christine Hamilton-Pennell. *Measuring Up to Standards: The Impact of School Library Programs & Information Literacy in Pennsylvania Schools*. Camp Hill, PA: Pennsylvania Citizens for Better Libraries, forthcoming

¹⁴ Lance, Keith Curry, Marcia J. Rodney, and Christine Hamilton-Pennell. *How School Librarians Help Kids Achieve Standards*. Castle Rock. CO: Hi Willow Research and Publishing, 2000.

in fact, support the efficacy of the activities and characteristics that I saw in the successful LMC programs about which I'd been learning.

The studies made me aware of some questions I hadn't thought to ask. In retrospect, for instance, it occurs to me that I might very well have asked a question about the level of LMC usage. However, heavy usage was so apparent during my visits that it didn't occur to me to ask. The situation Richard Moore describes is typical. He says, "Students are at the library door at 7:30 a.m., waiting for it to open. To get them to leave, I turn out the lights at 4:00 p.m."

Considering how much time the interviewees gave to me as they answered questions, revised their interviews, then answered more questions, perhaps it's just as well I didn't ask any more questions than I did.

Five of the elements of LMC programs that the studies identified as positively impacting student achievement are the cornerstones of my reflections on the interviews and stories gathered here: collaboration, leadership (indirectly), staffing, technology, and print collections.

Collaboration

The Colorado Study asserts that

"A central finding of this study is the importance of a collaborative approach to information literacy. Test scores rise in both elementary and middle schools as library media specialists (LMSs) and teachers work together. In addition, scores also increase with the amount of time library media specialists spend as in-service trainers of other teachers, acquainting them with the rapidly changing world of information." (The terms library media specialist, library media teacher, and librarian are used interchangeably.)^{*}

"Test scores increase as library media specialists spend more time

- planning cooperatively with teachers,
- identifying materials for teachers,
- teaching information literacy skills to students,
- providing in-service training to teachers, and
- managing a computer network through which the library media program reaches beyond its own walls to classrooms, labs, and offices."

The Alaska Study follows with

"Test scores tend to be higher for all types of schools where library staff spend more time delivering library/information literacy instruction to students (and) collaborating with teachers on instructional units."

The Pennsylvania Study further confirms

"The 'keystone' finding of this study is the importance of an integrated approach to information literacy teaching. For school library programs to be successful agents of academic achievement, information literacy must be an integral part of the school's approach to both standards and curriculum. Test scores increase as librarians spend more time...teaching cooperatively with teachers..."

^{*} Library media specialist and library media teacher both refer to school personnel with a teaching credential and either a library credential or masters in library science. Library media teacher is the term used in California.

All three of the studies confirm what all the library media teachers profiled here so clearly believe.

Just having access to resources or staff who perform management functions is insufficient:

- Physical access to an adequate book collection is not enough.
- Physical access to technology is not enough.
- A person who maintains and circulates a collection of books is not enough.
- A person who maintains computers and audiovisual equipment and makes accessible software is not enough.

Rather, it is through LMC programs in which library media teachers collaborate with classroom teachers to provide intellectual as well as physical access to LMC resources that students are enabled to achieve curricular and information literacy standards. As Peter Milbury so aptly explains, "I think that we need to stress the collaborative, instructional development role of the library media teacher now more than ever. This is critical. Its importance is pointed out in *Information Power; Building Partnerships for Learning* and also shows up as a critical activity in the Colorado Study and follow-up studies. The second Colorado Study stresses collaboration between librarians and teachers as being the pivotal factor in increasing student achievement. If library media teachers don't collaborate with classroom teachers, students' achievement doesn't rise to the extent possible."

The importance of collaboration to meeting curricular and information literacy standards is evidenced throughout the stories and in the brief instructional designs that follow each story. For instance, in her story Laura Bokesch tells us, "The history/social science content standards were one of our starting points (for planning the unit on Islam). We listed the standards not just for ourselves, but also to distribute to the students. Not only do we as teachers need to focus on the standards; our students need to know what standards they are expected to meet. We want the parents to understand why these particular concepts are being taught at the seventh-grade level."

Key to successful collaborations is the ability to establish strong working relationships with colleagues. Library media teachers develop these relationships by taking risks, by learning through trial and error how to work with specific teachers and how to integrate information literacy into specific units of study.

Persistence was a recurring theme in discussions about collaboration. Persistence is what has worked for Carolyn Owens. She says, "I have found that there are some teachers that, no matter how many times you pound on their door, collaborating is just not comfortable for them. Either they're unsure of themselves, or they don't think you have anything to offer. I don't think that's ever going to change, but I just keep pounding. Sometimes I think someone is never going to change, and doggoned if they don't surprise me and say, 'By the way, I want to do a project with you.'"

Persistence has also worked for Lori Fetzer. In telling about how she initiated a collaboration with a third-grade teacher she says, "I was intrigued by a lesson I saw in the November 1999 edition of *Library Media Activities Monthly*...I made a copy of the idea and put it in Patricia's box with a short note about how I would love to collaborate on a lesson similar to the one presented. Time passed and I didn't hear from Patricia. Still, I was excited about being involved in making the transition from the research (they had done together earlier) to the fable activity, so I asked Patricia if she had started her fables unit yet. She told me she was planning to begin the unit in a couple of weeks. We decided that we would get together and go over the lesson."

Another successful technique is to reach out to the people who need you most. This is what Melissa Wells did with great success. She explains, "A new school opened in our district in September, 1999, drawing 500 of our students and close to twenty teachers. In addition, a science course became a requirement for the seventh graders, and several elective classes were deleted from our schedule. Experienced teachers who had formerly taught electives such as woodshop and drafting were suddenly teaching science! They are wonderful teachers who were faced with teaching a new subject. At the end of the previous school year, as my old friends were making their plans to teach an entirely new subject, I volunteered to work with them to collaboratively plan a unit to kick off their first year of teaching science. The experience has had a positive impact on our students, classroom teachers, and me!"

Richard Moore actively recruits student teachers to do collaborative lessons with him in the LMC. He says, "I want to introduce newcomers to resource-based learning. At the beginning of the school year, I introduced myself to Dean Xiong, a student teacher, and I kept after him until he agreed to work with me."

In every collaboration, the partners have skills and knowledge to contribute that enable them to work more effectively together than alone. Of her collaboration with new science teachers, Melissa Wells says, "Our roles were clearly defined. The teachers brought their content area expectations, and I contributed my knowledge of resources and strategies that would meet the needs of all seventh graders."

Debbie Abilock's story provides an example of how library media teachers and classroom teachers support each other. A science teacher at Nueva took a workshop during the summer with the forestry service, and that helped her figure out her specific focus. Debbie is providing online links to sources of information that support this curriculum. She is teaching the necessary thinking processes that students need to learn in order to eventually locate and analyze resources on their own.

Collaboration happens more easily when it is a school-wide expectation. The support of the principal is crucial in bringing this about. At Polytechnic High School, where Kay Tortorice is the library media teacher, the technology committee, on which the principal, Sean Ashley, and Kay play key roles, decided that collaboration of the social studies and English departments with the library media teacher would take place on a department-wide basis. Kay hasn't needed to promote collaboration between the library media teachers and individual classroom teachers in these departments because it is a given.

At South Lake Middle School, where Laura Bokesch is the library media teacher, Judy Cunningham has been the school's principal since its inception. She and the other founding staff members decided that classroom teachers would be hired with the understanding that they would collaborate with the library media teacher. And they all do!

Most library media teachers encounter the problem of finding the time to plan collaborations. They are professionals, and, therefore, expect to work beyond an eight-hour day. However, paid time set aside specifically for planning collaborations would be one way of making clear that collaboration is a priority.

The Alaska Study discovered that collaborations that extend beyond the school walls are beneficial. It found that

"Test scores tend to be higher for all types of schools where the library has a cooperative relationship with the public library."

Some people wonder why there is a need for school LMCs as well as public libraries. A public library serves the needs of a whole community, from the youngest to the oldest resident; it supports the broad range of their interests and needs for information. The school LMC serves a much more focused population and is curriculum based; it therefore can better meet the curricular needs of its population. Additionally, a library media teacher is required to earn certification as a teacher as well as either a masters in library science or certification as a library media teacher. Despite the need for school LMCs as well as public libraries and even where a high-service LMC exists, school assignments do impact public libraries. Public libraries are often called upon to supplement the resources of the school LMC.

For instance, as the result of new funding, the public library in Ramona has initiated a program to purchase books that support Ramona High School's curriculum. Carolyn Owens has been working with the public librarians to build a collection that complements and extends rather than duplicates the school's collection. She knows the public library is impacted by the assignments given students so she tries to keep the librarians there informed. Often, she will email them the topics being researched. The reference librarians then identify and reserve books that supplement the resources in the high school's LMC.

Lori Fetzer has formed a good connection with the children's librarian, Roger Kelly, at the main branch of the Pasadena City Library. He lets her know when there are special programs. She tells him when the students have a research assignment, and she lets the children know she has talked to him and that he knows what their research assignment is. She tells the children the kinds of materials he will have available for them, sometimes materials that their school LMC doesn't have.

Richard Moore has set up assignment alerts with the Westminster Public Library. Whenever a class works on an assignment in the LMC, he fills out an assignment alert form on which he indicates the kinds of materials for which the students will be looking. He then takes it over to the public library and discusses it with a librarian there, so the librarian is ready when the students request help.

Leadership

Regarding leadership, the Colorado Study found that

"While not having a direct effect on test scores, leadership involvement on the part of the LMS has a strong impact on whether or not the LMS is working closely with teachers and students. At both elementary and middle school levels, the more the LMS is involved in school and library media professional activities, the higher the level of collaboration. Collaboration, in turn, does have a direct impact on test scores.

Higher levels of collaboration result from:

- meeting regularly with school administration,
- serving on standards and curriculum committees,
- working with faculty at school-wide staff meetings, and
- meeting with library media staff at the building level."

According to the Pennsylvania Study,

"Test scores increase as school librarians spend more time...serving on standards committee(s); and serving on curriculum committee(s)..."

The Alaska Study did not address the issue of leadership.

Library media teachers' acceptance as collaborators is a direct result of the leadership roles they have taken. Again, the studies verified exactly what I had been observing!

Library media teachers want school administrators to understand and support full LMC programs. It is, therefore, library media teachers' responsibility to meet with administrators in order to build a vision of what a full LMC program is and why it is valuable.

Al Sandrini's success in improving LMCs in Norris School District exemplifies the importance of meeting regularly with the school administration. He and Beth Heisey began working and meeting together in 1970, when she was a sixth-grade teacher and he was an elementary school principal. Beth says of him, "He was a great principal and a wonderful superintendent. He was wonderful because he had a vision. He could see beyond what was happening today. He had the ability to listen to me and understand my goals. He embraced a vision of a full-service LMC. It was exciting to work with him."

Al describes the role of administrators in relation to school LMCs thus: "The superintendent sets the global vision, but it is the principal that makes things happen at a school. All of our principals usually put part of their school's budget into supporting the LMC. Principals have to accept the vision and then support it by supporting librarians. They have to encourage classroom teachers to collaborate with librarians in the teaching of research skills."

Ann McKechnie, like most of the library media teachers interviewed, finds taking a leadership role by serving on committees basic to doing her job well. She reports, "All of my time outside of my regular job as a library media teacher is spent on committees. If I'm not on these committees, I obtain less support for the LMC program, and that means the students lose out."

Lesley Farmer, for one, saw that, school-wide commitment and action were needed in order for information literacy standards to be fully implemented. The Research Strategies Study Group (RSSG) was established and co-chaired by Lesley and a science teacher. Representatives from the different academic departments and student body participated in the research and acted as liaisons to facilitate all-faculty support and education. The presence of a school-wide reform effort and district outcomes provided impetus and administrative support for information literacy instruction.

Many library media teachers exert leadership by providing staff development (inservice training).

The Colorado Study reports

"...scores also increase with the amount of time library media specialists spend as in-service trainers of other teachers..."

The Alaska Study states

"Test scores tend to be higher for all types of schools where library staff spend more time training teachers in information access."

The Pennsylvania Study confirms

"Test scores increase as school librarians spend more time...providing in-service training to teachers..."

There is overlap between what classroom teachers know and can do and what library media teachers know and can do. However, there are certain kinds of expertise that are more primary to the educational backgrounds and professional roles of library media teachers yet also of value to classroom teachers. Most prominent among these are information and technology literacy. The state-funded digital high school grant given to all public senior high schools in California, in fact, requires that library media teachers provide workshops for classroom teachers on using computers and integrating technology into the curriculum. Thus, the grant explicitly recognizes library media teachers' expertise in integrating technology literacy with information literacy and the curriculum.

As Peter Milbury says, "...the research points out that collaboration with teachers is made possible principally when the librarian is perceived as a leader. Nowadays, library media teachers engaged in offering technology training for both teachers and students are the ones most likely to be perceived as leaders." During the 2000-2001 school year, Peter trained teachers to develop lessons that make use of the Web. The training was given after school, from 4:00 to 7:00 p.m.

Library media teachers have much to offer in addition to staff development in technology literacy. Every fall, for instance, at a training for the new teachers in Norris School District, Beth Heisey discusses district expectations regarding the use of Core literature. She explains how to work with library personnel and how to use the LMC effectively. Beth and the library aides want to make sure new teachers know what the LMC staff can do to help them. She also provides training for all the classroom teachers at her school twice a year. The most recent training, "How to Get the Most Out of Your Librarian," was attended by twenty-four of the thirty classroom teachers at her school even though attendance was not mandatory.

Staffing

In the Colorado Study findings

"CSAP (Colorado Student Assessment Program) reading scores increase with increases in LMS hours per 100 students (7th grade), and total staff hours per 100 students."

The Alaska Study affirms

"Test scores tend to be high for all types of schools where there is a school librarian."

The Pennsylvania Study specifies

"PSSA (Pennsylvania System of School Assessment) reading test scores increase with increases in school librarian staff hours and support staff hours."

Focusing on just one element of staffing, the library media teacher, I looked at a series of studies published by *School Library Journal*, beginning in 1983. The purpose of the on-going studies is to provide an up-to-date account and longitudinal view of national trends in school library media spending so that local data can be compared with national norms.¹⁶

¹⁶ Miller, Marilyn L. and Sholtz, Marilyn L. "How do You Measure Up?" *School Library Journal* (Oct., 1993): 50-59)

The survey published in the October 2000 School Library Journal reported that California had the worst ratio of students per library media teacher in the nation, 3,548 to one.¹⁷ This is a marked improvement from the ratio of students per library media teacher in 1993, which was 8,512 to one¹⁸ but still well above the national average of 953 students per library media teacher. According to the author of the article, California's recent \$158.5 million in school library appropriations is spurring some school districts to hire their first professional librarians in years.

Of the schools I visited, only one with a student body over 1,000 has more than one library media teacher. At Santa Monica High School, which has a student body of over 3,100 students, there are two library media teachers, a rarity in California.

Beth Heisy says of her job at Norris Middle School, "It takes all three of us, Mrs. Tait (the full-time library aide), Mrs. Schroepfer (the district library technician), and me, to do the kind of job we're doing. There are 559 sixth, seventh, and eighth-grade students at the school. Of the public schools visited, hers is the only one that measures up to and, in fact, exceeds national standards in terms of staffing.

Long Beach Unified School District is unusual in California in that it provides a credentialed library media teacher for every school in the district, including elementary schools. "That's where our money goes for library programs in this city," Kay says. She sees the effects of this district policy in the students she serves. "I am most fortunate. When students reach me, they have had all the basic stuff. Kids know how to use the card catalog; they know how to use encyclopedias and dictionaries. There is very little I have to teach about those resources. When it comes to teaching, I do more reinforcing. I focus on how to use more specialized research tools. I have worked in a couple of districts that did not have library media teachers at the elementary school level, and I see a real difference in the students here. By the time students reach the high school level, they are really at ease in libraries. They've been in libraries ever since they've been in kindergarten. They're familiar with them, they're familiar with their functions, and they know how to use them. It's a good place to be for them. There's a much different atmosphere here (because every elementary school has a library media teacher)."

Technology

When the Colorado Study looked beyond just the number of computers in the LMC, it found

"Where networked computers link LMCs with classrooms, labs, and other instructional sites, students earn higher CSAP reading test scores. These higher scores are particularly linked to the numbers of computers enabling teachers and students to utilize:

- LMC resources, either within the LMC or networked to the LMC,
- licensed databases, and
- Internet/World Wide Web"

The Pennsylvania Study confirmed

"Where networked computers link school libraries with classrooms, labs and other instructional sites, students earn higher PSSA reading test scores...Test scores increase as school librarians spend more time...managing information technology...The more print and electronic information resources available through the school library, the greater amount of time spent by the school

¹⁷ Everhart, Nancy "School Staffing Survey 2000; Looking for a Few Good Librarians" School Library Journal (Oct. 2000)

¹⁸ Sadowski, Michael and Myer Randy "States of Inequality" School Library Journal June 1993): 34-36)

librarian on information literacy-that is, teaching students and teachers how to access and use such resources."

Additionally, the Alaska Study findings show

"Test scores tend to be higher for all types of schools where the library provides online access to information via the Internet and the World Wide Web."

Equity of access needs to be of paramount concern and not just regarding technology. All students should have the opportunity to reap the benefits of adequate staffing, collaborative lessons, and quality book collections, as well as access to technology. Looking for the moment at technology alone, however, one finds great variance in the amount of access available to students. There is an obvious need to remedy the inequalities that one observes in traveling from school to school .

At Polytechnic High School, where there is such a large multiethnic student body, Kay Tortorice and her colleagues have made a conscious effort to address the equity issue. She says, "...we had no computers. Two math teachers came to me and asked me to help them write a technology grant. We put our heads together and came up with a proposal ...it called for every student who graduated from Poly to be computer literate...We realized that we were graduating two tiers of students: those who had technological skills and those who did not. We did not want those students who lacked computers at home to leave our school disadvantaged."

Access alone is not enough. Technology is not an end in itself but one of many tools for learning. As Sandy Schuckett so succinctly points out, "It is the thinking that is important, not just the resources that you are using."

When Darla Magana first introduced students to Power Point, students got so caught up in the animation and all the "cool" things that they were spending their class time in the LMC playing with gimmicks rather than evaluating their research. They were focused on the tool rather than on critical thinking. Darla and the classroom teacher needed to help students focus on the kinds of important questions Darla asks in her story: "Were they proving their point? Were they creating a presentation that would teach their classmates about a social ill? Were they prepared to persuade their classmates that their solution would indeed make the world a better place?"

Library media teachers play a vital role in enabling students to use technology effectively. As Peter Milbury says, "...It's fun working with it (technology), but now I think of it as just the way we do things. It enables us to be extremely successful. Students need to have access to ideas and information, and they can find them here. A high school librarian (and, I would add, a middle school and elementary school librarian) needs to be able to organize the Web, which is such a disorganized and overwhelming set of resources. To be able to get the kids used to a certain layout and way of finding things is very helpful."

At South Lake Middle School, students and faculty spend a great deal of time discussing ethics and the need to give credit in bibliographies for sources of both text and graphics. Laura Bokesch teaches the students that, when locating information on a website, they have to do the thinking, then highlight what they want. They copy just what they want in their notes into a word processing document. At the top of the document, they write the name of the website, its address, and the date they accessed it. On the printout, they again highlight key pieces of information. On their note cards, they describe their thinking. They tell, for example, if they have paraphrased or quoted from their printout.

Print Resources

Affirming the need for print as well as electronic resources, the Colorado Study found

"CSAP reading test scores increase with increases in ...print volumes per student, periodical subscriptions per 100 students..."

When looking at both print and electronic resources, the Pennsylvania Study noted

"The more print and electronic information resources available through the school library, the greater amount of time spent by the school librarian on information literacy-that is, teaching students and teachers how to access and use such resources."

The Alaska Study does not comment on print resources.

There are those who have argued that with the advent of computers, books will become obsolete. I think Laura speaks for all of the library media teachers featured here when she says, "The philosophy at the school is that technology is a tool, and we need to be educated in which tool is best. We ask ourselves, is a book better for this or is it better to go on the Internet?" Print and electronic resources each have their own strengths. For instance, while the Internet is an excellent source of current information, books are the best source of in-depth information

The national average is 18-25 books per student. California has on the average 10.5 books per student. Of the fourteen schools visited, Norris Middle School and Redwood High School are the only two public schools with print collections equivalent to the national average. At Norris Middle school there are about 11,000 books in the collection, nearly twenty books per student. At Redwood High School, there are approximately 35,000 books in the collection, about twenty-six books per student.

Recent state funding is addressing the need for more library books. This funding has been available for three years and must continue to be available if school LMCs are to have adequate current book collections.

Funding

According to the Colorado Study.

"CSAP reading test scores increase with increases in...library media expenditures per student."

The other studies do not directly address the issue of funding.

Would increasing funding for school LMCs make a difference? After looking at the studies and talking with library media teachers, that seems an easy question to answer.

The state-funded digital high school grant is making a tremendous difference. As a result of the grant, classrooms in all public high schools will be linked to LMC resources. Both the Colorado and Pennsylvania studies show such linkage makes a difference in student achievement. The library media teachers, as required by the grant, are providing workshops for teachers on using computers and integrating technology into the classroom. All three studies show that student achievement increases with the amount of time library media specialists spend as trainers of other teachers.

The special state funding for LMC resources for all levels of public elementary, middle, and high schools is making a tremendous difference. Typically, library media teachers have been able to improve all aspects of their LMC's resources, but, mirroring the

importance library media teachers place on print materials, the bulk of the money has been spent on books.

At Santa Monica High School, for instance, Ann McKechnie has spent a lot of time weeding, especially in preparation for the new state funding, and the collection is up to date. Ann says, "A couple of years ago, on any given day, an average of 500 books a day were checked out. A couple of months ago, it was 700. Now it's just under 1,000. I think it's because of the state monies and the books we've been able to buy. They look so attractive and they're so compelling; the kids are checking them out like crazy."

Richard Moore at Bolsa Grande says, "In the past, the lack of resources made for a lot of unsuccessful experiences...Now Bolsa Grande is receiving about \$40,000 a year in special state funding for school LMCs, a huge increase. 25% of the state funding is being spent on new equipment and 75% on books. As the collection starts to build as a result of the new state money..., teachers and students find a lot more of the resources they need."

District funding is a necessity. The greater efficacy of local rather than national control of schools is a belief with broad acceptance in this country. Along with the right to make decisions comes the responsibility for providing adequate funding. In Ramona Unified School District, district funding of library materials has continued over the last ten years and is currently \$5,000 per school per year. The district provides an additional \$15,000 to the high school.

Unfortunately, some school districts have assumed state funding replaces rather than supplements district funding. In March 2000, the Santa Monica-Malibu Unified School District cut the regular school LMC budget for the 2000-2001 school year by \$8,000. Ann McKechnie wrote to everyone concerned. She was successful in convincing the District to return the \$8,000 to the school LMC budget. Not all library media teachers have been so successful.

Since the mid 1960s, the Elementary and Secondary Education Act (ESEA) has made available some federal monies for instructional materials. How the money from this source is allocated varies from district to district; some spend it on LMC resources. The amount changes annually and purchases approximately only one-fourth to one-third book per child.

Conclusion

Debbie Abilock has created a fitting analogy to help us understand today's LMCs. In the book *An Extraordinary Egg* by Leo Lionni (Knopf, 1994), she tells us, "A frog named Jessica, filled with wonder, discovers what she believes is a beautiful pebble. When she shows it to her two frog friends, Marilyn, a frog who 'knew everything about everything,' says that it is a *chicken's* egg. When the egg hatches and a long scaly green creature emerges, the three frogs are sure that this must be a chicken. For many days the friends play together in the water off Pebble Island. When Jessica frog becomes tangled in the water's weeds and is saved from drowning by the 'chicken,' they become inseparable. Together they explore places that Jessica has never been. Eventually they come upon the most extraordinary creature they had ever seen, whom the 'chicken' recognizes as her mother, an alligator. Jessica returns to tell her frog friends about this adventure. They chortle at what they believe is a misconception, continuing to assert that their friend is a chicken."

Like the egg and the creature it produces, LMCs are truly extraordinary. They are changing, in some cases almost beyond recognition, and not only due to technology. Some choose to call LMCs by other names, for instance research centers or information resource centers. Regardless of their name, they are hubs of activity

providing crucial links, both physically and intellectually, to the best information and thinking available. Library media teachers and classroom teachers, working together, help students use those links to achieve curricular and information literacy standards. Library media teachers collaborating with classroom teachers in LMCs in which there are sufficiently abundant resources are vital to student success.

16.1

GLOSSARY

Advanced Placement (AP) Classes

Rigorous highly structured high school academic classes. The College Board monitors the program. Final examination performance may earn college level credits.

Annenberg Institute for School Reform

Located at Brown University, the Institute strives to improve conditions and outcomes in American schools. Special emphasis is placed on schools in urban communities and those serving disadvantaged students. <http://www.annenberginstitute.org>

California SB1274 Restructuring Schools

An authorization of funds to support comprehensive restructuring of schools K-12. Schools who were successful in this competitive program received funding over three years to bring about effective changes in their programs.

Coalition of Essential Schools

Guided by the Ten Common Principles, CES is a national network of schools and regional centers. Their focus is the promotion of higher student achievement within a nurturing and humane school community. <http://www.essentialschools.org/>

e-library

An on-line collection of newspapers, books, magazines, pictures, maps, and television/radio transcripts that are searchable and allow for sorting and grouping. E-library for elementary can sort by reading level.

English Language Development (ELD)

Sequential English lessons designed to increase English Learners' English language (reading, writing, speaking, and listening) abilities.

English Language Learners (ELL)

Students whose native language is other than English and who have not yet achieved proficiency in the English Language.

ESEA Compensatory Education Act

An act first passed by Congress in 1965 to provide federal funding for education. It has been continually reauthorized with the latest reauthorization in 1994, known now as the Improving America's School Act of 1994. Sections of the law are indicated as titles and chapters.

GATE (Gifted and Talented Education)

Programs that provide supplementary services for students that have been identified as gifted and/or talented.

Graphical Information Systems (GIS)

Specialized mapping software that requires an understanding of how to add data tied to geographical points and then compose queries about data.

Healthy Start

A state funded program that brings parents, community members, local schools, and local non-profit organizations together to improve the health and well being of students and families.

Honors Classes

Higher level challenging academic classes for high school students.

IEP (Individual Education Plan)

A document for special education students that defines the child's educational program.

Mainstreaming

Placing a Special Education student in a regular classroom for part of the day, or all day, to participate in the regular education program.

Resource-based Learning

Using the inquiry model or project model of learning, learners use a variety of resources to support their inquiries and research: on-line, print, non-print, video, audio, primary, secondary, etc.

Resource Specialist Program (RSP)

Provides instruction to Special Education students who are in the regular classroom program for a minimum of 50% of the day.

Sheltered English

Modified instruction for English Learners. Instructional delivery may be in English or with primary language support especially in language arts, mathematics, science and social science. As students acquire English, the number of sheltered classes decreases.

School Improvement Program (SIP)

A provision of legislative bill (AB 65) passed in 1977, (since sunset), to extend the benefits of Early Childhood Education from grades K-3 to 4-12, (to restructure elementary, intermediate, and secondary education to ensure that all schools can respond in a timely and effective manner to the educational, personal and career needs of every pupil).

SDAIE (Specially Designed Academic Instruction in English) An extensive training program for teachers of Limited English Proficient Students or EL students.

Special Day Class

Special education services designed to meet the educational needs of children with emotional, learning, or physical disabilities. Students spend 50% or more of their day in the special education classroom.

Sustained Silent Reading (SSR)

A reading strategy to promote recreational reading. Students read material of own choice for 15 to 20 minutes. Comprehension checks are not required. Teacher models SSR.

Title I, Part A—Improving Basic Programs Operated by Local Educational Agencies

Supports local educational agencies in improving teaching and learning to help low-achieving students in high-poverty schools meet the same challenging state content and performance standards that apply to all students. Promotes effective instructional strategies that increase the amount and quality of learning time for at-risk children and that deliver an enriched and accelerated curriculum. Also expands eligibility of schools for school wide programs that serve all children in high-poverty schools; encourages school-based planning; establishes accountability based on results; promotes effective parental participation; and supports coordination with health and social services.

Wizard

Programming that guides the user through a series of steps to modify and refine a search. Based on answers to questions, it has an algorithm that comes up with suggestions for which search engines to use.

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