

# Objective: Achievement Solution: School Libraries

by David V. Loertscher

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*Two reports show a strong link between school libraries and high student achievement.*

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During the 19th and 20th centuries, each generation in the United States sacrificed to educate the next as its contribution to the perpetuation of the American Dream. But as the 1990s roll on toward a new century, the nation is questioning the quality of our schools and their ability to provide the intended boost. So much bad press about the inadequacies of the school system has been ingested by the nation in the past 10 years that parents, educators, and government officials are asking how to repair or restructure it. Some view the problem as unsolvable.

What are the basic elements that must exist to provide a quality education? What are the enriching elements (the ones that are nice to have if you can afford them)? What are the extraneous elements (those that probably don't make a difference one way or another)? Is a teacher with 20 students and a few textbooks the basic element with every other aspect of the

modern school a frill? Are the "add-ons" of art, music, physical education, vocational education, counseling, technology, and libraries really needed, or are these expensive features frills? Or worse, are these additional elements a drag on both the pocketbook and the job a single teacher can accomplish alone?

Such questions might be easy to answer if basic literacy were targeted at a single, achievable level, such as, "every student will exit school with a reading level of at least grade 6.2." But, the requirements of a complex society, an information society, a technological society, an economic giant demand more. On the one hand, many accept the premise that we must provide more, but when questions of quality arise, when it seems that nothing is working, then one begins to wonder again if a basics approach might be a good idea.

Two important studies, both published at the beginning of 1993, directly address the question of basics in education. One explores the contribution of the school library media center (SLMC) to achievement<sup>1</sup>; the other looks at the value of free voluntary reading.<sup>2</sup> Added together, these two studies provide clues about what's really essential in American education. They provide guidelines for program planning, action, and necessary expenditures to communities as they streamline or redesign their schools. Best of all, the research findings make sense.

In the 30 years that SLMCs have been a widespread part of schools in the United States, at least \$80 billion

has been spent on them if you count facilities, materials, technologies, and personnel. Any time a budget crisis looms on the horizon, SLMCs come under scrutiny because they represent a substantial cost over and above the investment in a single teacher armed with a few textbooks. Has this investment paid off? The Colorado Department of Education study *The Impact of School Library Media Centers on Academic Achievement* and the report *The Power of Reading* by Stephen Krashen answer a thunderous *yes* to that question. But that answer must be tempered with a *yes . . . if* qualification, since a simple expenditure for space, materials, and technology is only a tool. It is easy to go to the store and buy a shovel, but that doesn't guarantee that a hole will get dug.

## The Colorado Study

In 1987, School Match, a company helping business executives choose schools for their children as they relocate, reported that the strongest predictor of test performance for young children is school library media expenditures. Keith Lance, one of the authors of the Colorado study, was interested in confirming this finding for Colorado. He was also interested in identifying intervening variables that explain this relationship. Using a grant from the U.S. Department of Education, the Colorado study was planned and carried out in 1991-92 using data collected by the Colorado Department of Education during the 1988-89 school year.

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Figure 1

U.S. & sample schools by level, 1988-89

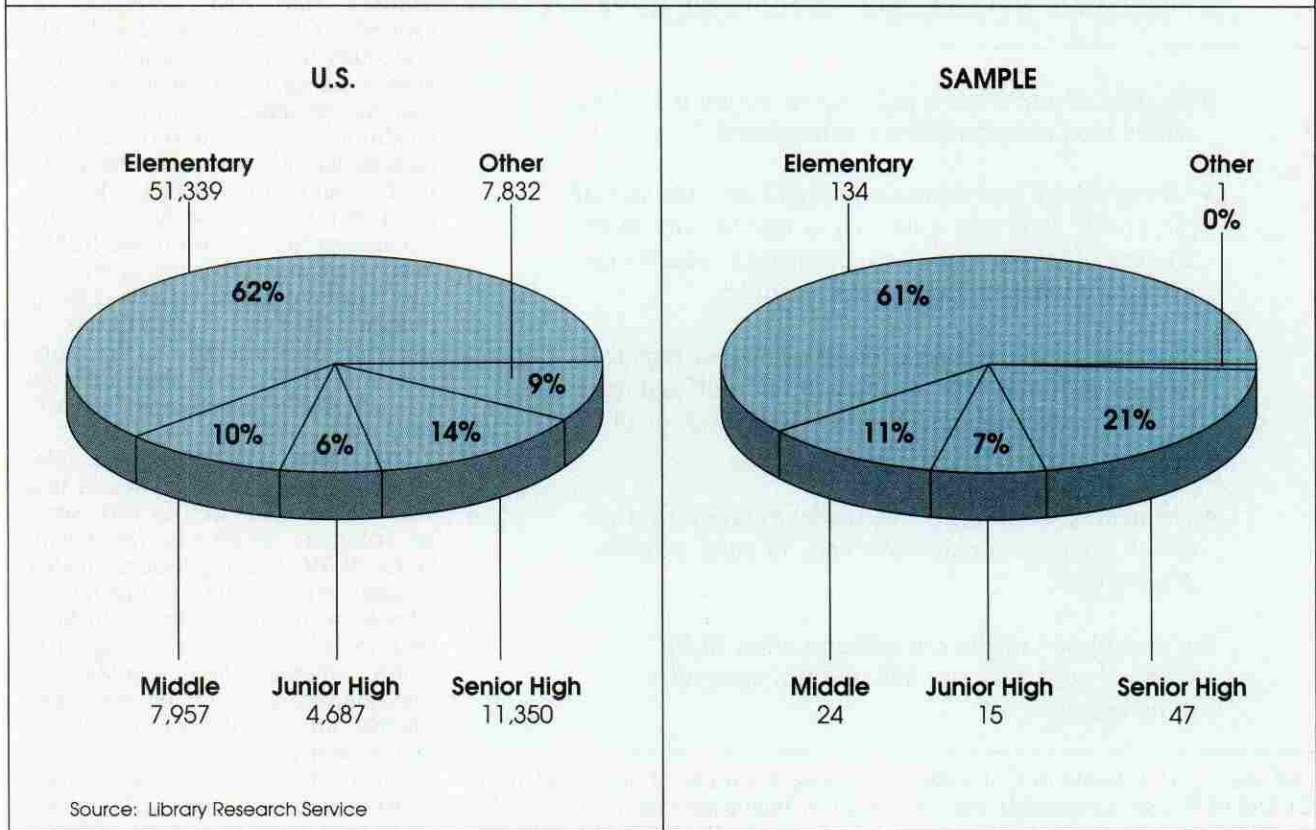


Figure 2

U.S. & sample schools by enrollment range, Fall 1988

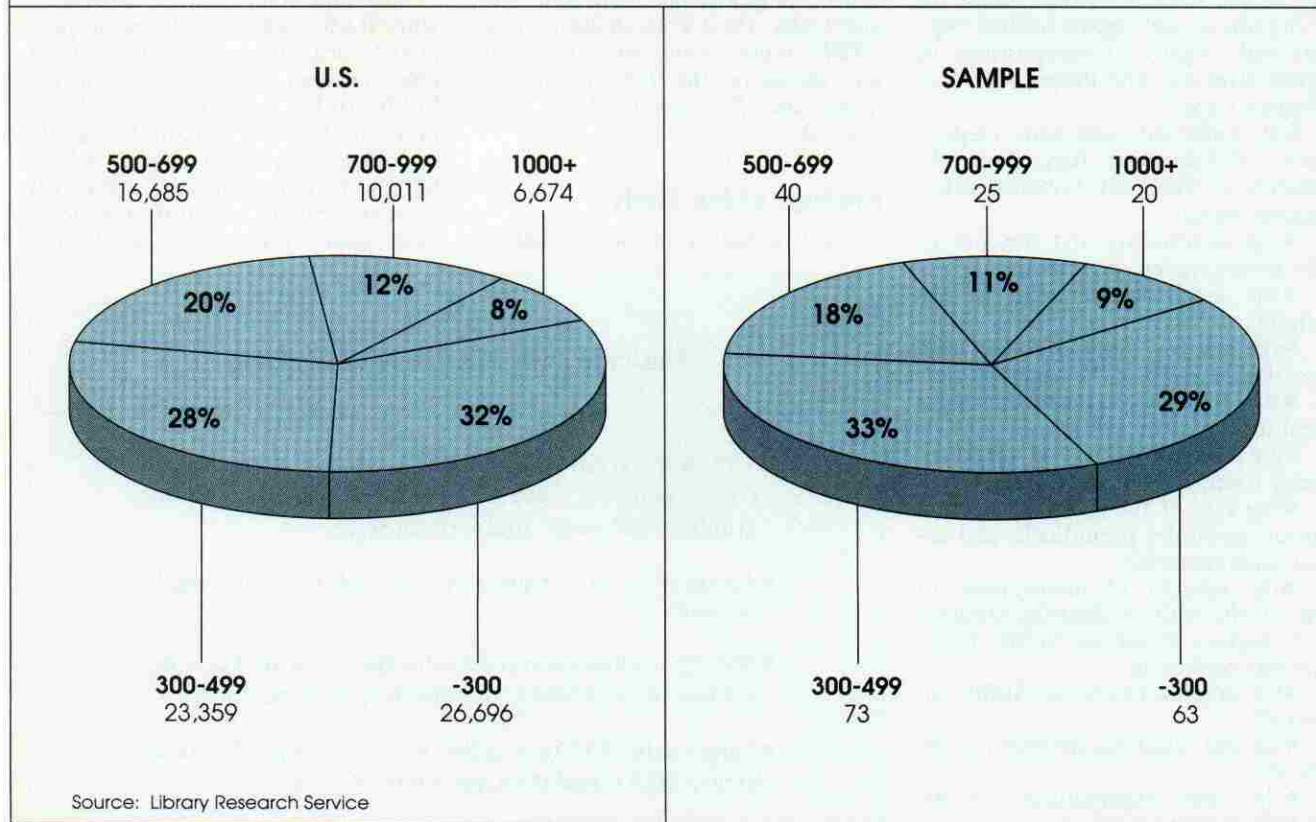


Figure 3  
**Summary of conclusions from Colorado study**

- The size of an SLMC's staff and collection is the best school predictor of academic achievement.
- Among school *and* community predictors, the size of the SLMC staff and collection is second only to the absence of at-risk conditions, particularly poverty and low educational attainment among adults.
- Students who score higher on standardized tests tend to come from schools with more SLMC staff and more books, periodicals, and videos—regardless of other factors, including economic ones.
- The instructional role of the school library media specialist shapes the collection and, in turn, academic achievement.
- School library media expenditures affect SLMC staff and collection size and, in turn, academic achievement.

Of the 1,331 schools in Colorado, 221 had sufficient comparable data to be included in the study. Comparing these sample schools to all schools in the state, the research team found them sufficiently representative. Then, comparing the Colorado sample to the schools of the nation, the Colorado schools again seemed typical with regard to composition by grade level and enrollment size. (See Figures 1 and 2.)

Data collected from state Department of Education files about the schools in the study included information about:

- the community and the size of the at-risk student population;
- the teacher-pupil ratio in the school;
- the salaries, years of experience, and degree levels of the teaching staff;
- the total expenditures per student for the entire school.

Data studied specific to school library media centers included:

- the size of the SLMC collection including books, periodicals, and audiovisual materials;
- the amount of involvement of the SLMC staff in assisting students and teachers to use the SLMC facilities and collection;
- the amount of use the SLMC received;
- the use of microcomputers in the school;
- the total expenditures for the SLMC in each school.

Using a variety of statistical techniques, including factor and correlation analyses, the Colorado researchers studied the influence of these community, school, and media center variables on standardized test scores in reading, language, and information skills. For grades one, two, four, five, and seven, *Iowa Tests of Basic Skills* (ITBS) scores were used; for grade ten, scores on the *Tests of Achievement and Proficiency* (TAP) were studied.

#### Findings of the Study

The Colorado study shows that the

strength of the SLMC is a clear predictor of academic achievement. At every grade level studied, as an SLMC's staff and collection increased, test scores increased. The only other factor in the study to show such a strong effect on achievement was the presence of student at-risk conditions, such as poverty and low educational attainment among adults in the community. In fact, when the negative force of these factors is pitted against the strength of the SLMC factors, an interesting tug of war occurs. Academic achievement is being dragged down by at-risk factors in students' backgrounds at the same time that SLMC staff and collection size are pushing academic achievement up.

Supporting evidence of this relationship further, the study found that even among communities with similar economic conditions, those with better SLMC funding fostered higher student achievement: "Students at schools with better funded SLMCs tend to achieve higher average test scores, whether their schools and communities are rich or poor and whether adults in the community are well or poorly educated."

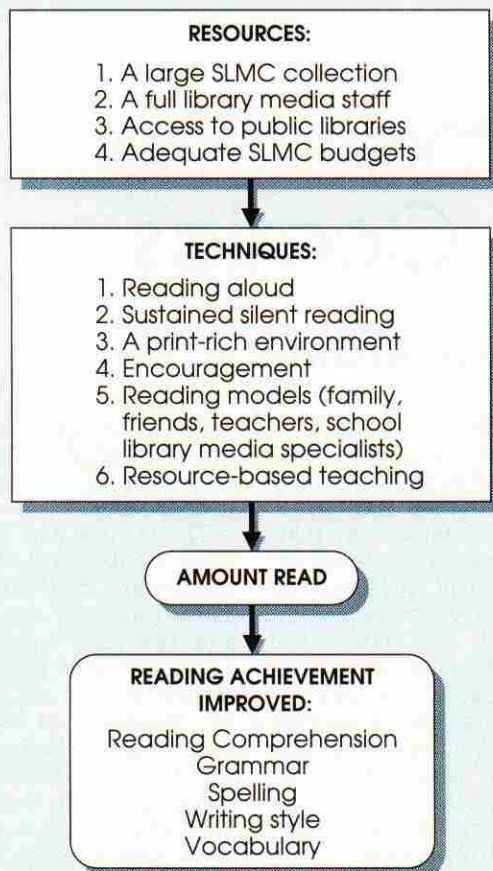
When combined, these two factors, at-risk conditions and SLMCs, account for a great deal of the variance in reading scores across the grade levels. (By tenth grade, they account for more than three-quarters of this variance.)

Two additional factors associated with SLMCs were also found to help predict academic achievement in a more indirect way: the size of the SLMC budget and the role of the library staff in the school. The study concludes that, in the case of school library media materials, "you get what you pay for" in student achievement. Also, when the school library

Figure 4  
**Findings from *The Power of Reading***

- Voluntary reading is the best predictor of reading comprehension, vocabulary growth, spelling ability, grammatical usage, and writing style.
- Access to SLMCs results in more voluntary reading by students.
- Having a school library media specialist makes a difference in the amount of voluntary reading done.
- Larger school library collections and longer hours increase both circulation and amount read.

Figure 5  
"The Power of the SLMC"



media specialist joins with the teacher to exploit the resources of the library media collection, this kind of cooperative effort pays off in better test scores.

A summary of conclusions from the Colorado study appears in Figure 3.

### Reading Power

What could account for the power of the SLMC to predict academic achievement? In one sense, we could theorize that administrators of school districts who care enough to have strong school library media programs also care enough to set an entire program in place that affects academic achievement. In this view, the library media program is a symptom of other good things happening.

The research review done by Stephen Krashen in his book *The Power of Reading* provides another logical explanation. Krashen reviews hundreds of research studies done in the 19th and 20th centuries that explore the power of free voluntary reading—the kind of reading a young person is not assigned to do, but rather chooses to do. Krashen's summary is not only

insightful, but when possible, he has reanalyzed experimental data with current statistical tools to recheck the results of previous studies.

Krashen makes an utterly startling conclusion (with tongue in cheek): we learn to read by reading! If we are trying to learn a second language, the best results happen if we read in that language (good advice for all the students in our schools who must learn English). But Krashen found even better and more powerful results: that free voluntary reading is also the best predictor of reading comprehension, vocabulary growth, spelling ability, grammatical usage, and writing style.

Given all these benefits, it follows that a major goal of education should be to make sure that children do as much of this kind of reading as possible. The best way, according to Krashen, is to ensure access: "The research supports the commonsense view that when books are readily available, when the print environment is rich, more reading is being done." Krashen goes on to cite ways in which children's access to books is increased, thus affecting the amount

read and language ability. These include having more resources available at home, larger collections of books in classrooms, and—of course—bigger and better school and public libraries.

For a summary of the findings from Krashen's report relating to school library media collections and their effect on reading, see Figure 4.

### Combining Both Studies

When we combine the Colorado study and the Krashen review of research, a powerful model appears that can become the basis of a solid reading program for schools. (See Figure 5.) Simply put, adequate SLMC budgets, materials, and staffing, as well as techniques that encourage the effective use of library resources, lead to higher student achievement.

Not only are the two studies a powerful argument for the support of strong library media programs as an essential component in every school, but they put the burden of proof back on those who claim the contrary. It is doubtful that any evidence can be mounted to show that good library media programs don't make a difference. □

### References

1. Lance, Keith Curry, Lynda Welborn, and Christine Hamilton-Pennell. *The Impact of School Library Media Centers on Academic Achievement*. Hi Willow Research and Publishing (1993; ISBN 0-931510-48-1; \$25), P.O. Box 266, Castle Rock, CO 80104.
2. Krashen, Stephen. *The Power of Reading*. Libraries Unlimited, Inc. (1993; ISBN 1-56308-006-0; \$13.50), P.O. Box 6633, Englewood, CO 80155-6633.

**Editor's note:** This article has been excerpted from an appendix to *The Impact of School Library Media Centers on Academic Achievement* by Keith Curry Lance, Lynda Welborn, and Christine Hamilton-Pennell. The author encourages school library media specialists to share this information with administrators, teachers, parents, and other school decision-makers. The survey report contains a set of 14 full-page illustrations to support an oral presentation of this material. For the purposes of this article, a sampling of these figures has been included. Before presenting this data either orally or in written form, however, it is important to read the full text of both studies cited. This will enable you to answer any questions that may arise and to provide any requested follow-up information.