From Research to Action in School Library Media Programs

by *Gail K. Dickinson*

he research on the school library media center program has been developed over a period of decades. School library media researchers over the years have used different strategies to achieve the goal of creating excellence in school library media programs. The degree to which that research has changed the building-level program, however, is questionable, and the amount of time that passes between proven strategies and implementation of those strategies is frustrating.

Current research in the school library media area is combined with national guidelines built on improving academic achievement. This research on the impact of school library media programs on academic achievement does much to outline the school library media program needed for today's students, yet the field is still struggling with issues such as scheduling, limited resources, and limited staffing — issues that have been studied for decades.

The gap between the fully staffed school library media center with a wealth of technology and a neighboring school library with no technology, no budget, and minimal staffing makes one wonder what we have learned from university research. Journal articles and conference programs are filled with evidence of the value of the school library media program to the education of our children, but the research does not seem to affect a significant level of change in the way school libraries are structured, staffed, and administered.

This frustration is not unique to the library field. John Tillotson, in a recent article encouraging action research in the science classroom, noted that the problems in science education stem from an inability to take what is known about science education and implement it in the field.[1] Action research is a strategy that could turn this frustration into energetic application, and merge the gap between university-level research and building-level practice.

History of School Library Media Research

Over the decades, three basic types of research into school library media programs have emerged. Model programs research illustrates the implementation of library media center roles and tasks in real-life school settings. Research into input measures study what inputs, usually budget, materials, and staffing, are typical in a school library media center. Most recently, research into output measures focuses on the impact that school library media programs have on the educational process. Each of these three types of school library media research has had opportunities to come to the forefront. Each has lent credibility to school library media center program design; and each provides opportunities for furthering that research at the building level through action research.

Before the action research potential for each of these areas, can be discussed, the possibilities and problems of action research is necessary.

Action Research

"Yes, but," "That would never work here," "Not on our budget," are discouraging phrases that can easily squelch planned changes in schools and libraries, even promising changes in terms of achieving the mission of the school library media program. For instance, the type and amount of student reading has been positively linked to academic achievement. Stephen Krashen's book *The Power of Reading*[2] is still a powerful motivational tool for instigating change in school library media programming to encourage more reading in schools. Furthermore, school library media research is now being linked directly to school library media programs, through the work of Keith Curry Lance,[3] focusing on the links between school library media programs and academic achievement.

The question that school library media specialists may have is why this increasingly recognized research is not making a difference in their daily work with students and teachers. Flexible scheduling is another example of an issue that has been studied for years, yet school library media specialists still struggle to convince principals and teachers of the benefits to student learning that the change would bring.

The answer lies in the research literature of change, especially school change. Robert Evans, in his book *The Human Side of School Change*, notes not only the difficulties of change, but also the benefits of resistance to change. Resistance to change ensures that there is stability in the organization, and that whims and fads will pass before implementation occurs. Accepting resistance to change as a positive factor in the school setting does not mean that change cannot occur, only that there must first be a reason to change. He notes, "People must be sufficiently dissatisfied with the present state of affairs — and their role in maintaining

it — or they have no reason to endure the losses and challenges of change."[4]

The question for school library media specialists is not that others can't see why a proposed change would benefit the school, or even that others do not agree with the change. The question is how to increase the dissatisfaction of their teaching peers and school administration with the current state of affairs in their own school. Flexible scheduling is again a good example of this. It may be fairly easy to convince classroom teachers, principals, and parents of the advantages of flexible scheduling; however, awareness, and even agreement with the issues may not be enough. Many times the school librarian is the only person dissatisfied with the schedule, while teachers, principals, students, and parents are very satisfied. The plan must not only be to make these stakeholders intellectually aware of the benefits of a reform such as flexible scheduling, but must also go further to encourage the stakeholders' personal dissatisfaction with the current system, so that they are willing to go through the change process.

Action research is a strategy that can achieve this goal. Action research can turn the tide of negativity to a promising opportunity for positive change by creating a research environment in which talk of improving academic achievement is brought to a localized reality in terms of "our" students, "our" test scores, and "our" teachers.

Definition of Action Research

Action research, sometimes also called teacher-as-researcher, has been described more often than defined. Glanz described it as "applying traditional research approaches ... to real problems or issues facing the practitioner."[5] Gay[6] defines the purpose of action research as solving practical problems through the application of the scientific method. Calhoun's more formal definition of "disciplined inquiry (research) in the context of focused efforts to improve the quality of an organization and its performance (action)"[7] can be combined with the others, to achieve a definition that action research is simply practitioners using research methods to solve problems and answer questions that they see in their everyday work in their local setting.

Action research in the school library media center is a method for systematic evaluation of specific areas of the school library media program. Action research, when combined with nationally reported research, can provide local context for the data. Most researchers agree, however, that action research cannot be generalized beyond the local level, and cannot substitute for systematic study by trained researchers. The school-library-media-specialist-as-researcher, however, can add to that national body of research by providing local context and local tests of implementation strategies.

Steps in Action Research

School library media specialists conduct research all the time. We have circulation data, we keep schedules and lists, and we talk to students, teachers, and parents. This data, however, is rarely systematically collected and analyzed, and even more rarely applied to a specific problem. An action research agenda at the school or district level can use data already available to create change. The four basic steps in conducting action research are: selection of the research question, data collection, data analysis, and reporting of results.

Selection of the Problem
We may think we are surrounded by problems in the school library, but choosing an area for action research may prove difficult. Commonly heard concerns of school library media specialists may be the following:

- I wish I had flexible scheduling.
- My budget is too low (or nonexistent).
- The teachers don't have time to collaborate.

A successful action research problem (or question) is aligns with school goals, increases student learning, or positively impacts teaching strategies. A less successful action research problem is one that will only improve the efficiency of program administration within the library media center. Choose an area of greatest concern; then conduct a literature search to see what previously has been studied in that area.

Data Collection
As with scientific research, two types of action research data exist: quantitative data (numbers and statistics), and qualitative (what is read, heard, or said). Libraries have always collected quantitative data. Circulation statistics, budget reports, and attendance totals have been collected and reported for years. Ironically, with the use of automated catalogs, the availability of such data may have decreased, since circulation records may be deleted at the end of each school year.

Test data may be available for the ac-

tion researcher. It may be possible to compare aggregated reading test scores with aggregated circulation records to discover the effectiveness of a reading initiative such as a book talking program for 4th graders, or to remove checkout limits for certain classes.

Qualitative data are also useful. In scientific research, qualitative data are comprised of interviews or observations. The same concepts are true in action research, except that gathering methods may be more informal. To test the value of a library orientation program for new students, a high school library media specialist may develop a student opinion survey; however, the library media specialist may also observe classes doing research in the library and make notes as to research behaviors that the students may have learned during orientation. Overheard comments and informal discussions with students may be noted in a journal. Library staff and classroom teachers can be invaluable partners in the gathering of qualitative data; the data, however, must be systematically gathered and written down for future reference.

Data Analysis
Data analysis is not always statistical, although in some cases this may be helpful. Remember that action research usually cannot be generalized, which means that it cannot be applied beyond the local school setting. Rather than being a limitation, the lack of generalizability can be a strength, and give even more meaning to the results at the local level, since statistics most meaningful to the local school setting, such as to special program area teachers or within classroom special projects, can be used.

Data can be analyzed using a simple spreadsheet chart, showing the difference in scores, numbers of items checked out, or other numeric data. Qualitative data can be analyzed using numbers as well, by dividing the comments or pieces of observations into categories, and then counting the times each category is mentioned. Use of anecdotal comments based on the qualitative data is helpful to draw a visual picture of the use of the library media center.

Reporting of Results
Usually the results of action research are used in a report directed to administration, or in a staff development program. Publication of the results in a newsletter or journal devoted to practical tips should be encouraged. By using these journals, practitioners are encouraged to try action research themselves. A com-

posite picture of a typical class using the library media center, for example, could draw from observations, student surveys, and teacher interviews to illustrate the value of the school library program in the teaching and learning processes of the school.

These four basic steps — identification of the research question, collection of data, analysis of data, and reporting of results — are repeated in a variety of action research projects. The results are applicable only to the specific school; however, if enough action research is performed at the local school setting and reported regionally and nationally through journal articles and conference presentations, the resulting change will have a resounding impact on the school library media program development.

Collaborative action research, conducted with several other partners within the school, also strengthens the meaning of the data. Since several perspectives are used at each step of the process, the results are more easily seen as fact rather than opinion. Collaborative action research also can include several schools gathering the same types of data. Although still not generalizable beyond these schools, the data tends to be seen as having more legitimacy. Collaborative action research programs also can be conducted under the auspices of a university research program. This type of research can add controls to the program to generate more general results.

Applying Action Research Strategies to National Research Initiatives

As described earlier, three types of school library research that have been conducted over the years involve the use of model program, input measures, and output measures. Action research can be applied to each of these national research trends.

Model Programs

The Knapp School Library Project,[8] in the mid-1960s is seen as the first widespread model program for school library media centers. Model elementary and secondary school libraries were developed at specific sites across the country, and grants were used to encourage visitation to these sites. Knapp funds also were used in the training of school library media specialists, and with the Library Manpower Project, to delineate the tasks and activities in the school library media center. Findings from the Knapp Project were used to determine appropriate staffing levels, collection sizes, and activities for school library programs. The Knapp project helped to change the perception of a library as a book collection to one that included a variety of formats, was staffed professionally, and could function as the heart of the school.

Library Power, from the Dewitt Wallace Reader's Digest fund, is frequently hailed as the modern version of the Knapp School Library Project. Library Power funded programs of excellence dependent on flexible scheduling, staff development to encourage collaborative teaching and learning, and money for facilities and collections. Tastad and Tallman[9] studied the impact of Library Power on two schools over a period of three years. They identified three goals of Library Power: developing a stronger curricular role for the school library media specialist, developing learner-centered libraries, and developing a school culture to sustain reform. Library Power was most successful in school settings where the school library media specialist became a partner with administrators and teachers to achieve whole-school reform. A major investment in time and money was placed in staff development activities. Authentic assessment methods were strengthened, with the library

media center as a learning laboratory for authentic, student-centered learning. Teachers were encouraged to move from traditional desk-bound instruction to using a variety of instructional resources and strategies.

These two examples of model program research show how this research places the school library media center into whole school reform. The Knapp School Library Project encouraged the development of school libraries, and Library Power turned the participating school library media programs into learning laboratories for whole school reform.

Model program research takes the ideal of what a school library media program can achieve and places it into a real-life setting in an attempt to encourage replication of the structure and activities. Visitation to the sites and publication of the findings of these activities does much to encourage replication. Unfortunately, there is little in the literature to show that visitors to these sites attempt action research to duplicate reforms in their own schools. This would add to our knowledge of the importance of model programs, and strengthen the knowledge of whether money, staff development, or policy changes does most to create the model programs.

Model programs action research requires gathering a variety of data. Action researchers should first select an area of the model program for study, such as collaboration with teachers. A baseline should be established by describing the present degree and amount of collaboration. A survey to ascertain teacher attitudes toward collaboration is helpful. A review of research literature on collaboration may suggest possible strategies, including direct approach to teachers through one-on-one discussion, staff development presentations to grade levels and department chairs, and whole

school approaches, including program advocacy techniques such as newsletters and whole school staff development.

As the collaborative effort unfolds, careful recording of observations, personal reflections, and records of conversations with teachers, parents, students, and administrators are helpful. Do not rely on your memory. A specific time period, perhaps a semester or a complete school year, must be established at the beginning of the action research project, so that the data collection period has a definite beginning and end.

Each strategy implemented needs to be documented and its success evaluated. At the end of each time period, data must be collated and categorized. The reporting of this type of action research is very appropriate for a journal article. Action research personalizes theoretical research, and the personal reflections and issues, carefully documented and observed, are helpful in replicating and implementing university research, especially in the implementation of person-to-person reforms such as collaborative instructional efforts.

Input Measures

In the 1970s, the publication of *Media Programs, District and School*[10] reflected the high point of the use of input measures for school library media programs. This publication offered qualitative goals for the school library media program and quantitative statements for the number of items in school library media collections. A specific number of books and equipment per student was used as an ideal, and although few schools reached the numeric totals outlined in *Media Programs*, the standards given were helpful to school library media specialists building an integrated collection of print and nonprint materials.

Another type of input measure is Marilyn Miller's research in conjunction with other researchers on school library budgets. The Miller studies, published in *School Library Journal* beginning in the early 1980s and continuing biennially,[11] give an overview of the budget money school library media programs were receiving, and the types and numbers of materials purchased with these funds. These studies give the budding action researcher valuable tools for assessing their local school budgets.

A more recent input measures is the National Center for Education Statistics publication on *School Library Media Centers, 1993-94*.[12] The National School and Staffing Survey (SASS) regularly gathers data on public and private schools. For the first time, the survey gathered information on school library media centers as well. This survey, available online and in print, gives information on budget, collections, and library media center activities.

The reliance on input measures is still evident in guidelines such as Southern Association of Schools and Colleges (SACS), and in state level guidelines as well. Action research can give the school library media specialist valuable information for assessing local budget, collections, and support for typical library media center activities such as serving on planning teams and working collaboratively with teachers.

Action research can easily be applied to input measures to bring national data to the school level. Using the SASS data, or the latest Miller-Shontz survey, school library media specialists can compare data such as budget, or numbers of books purchased. For comparison purposes, the same types of data about your school and your school library media center should be gathered. Typical data comparison points are the following:

- Enrollment — Use the official enrollment figure reported to the state education agency. The principal office staff should know or be able to find this figure easily.

- Budget figures — How much was spent during the previous school year, and for what? Divide the total amount spent on books by the official enrollment figure to ascertain the amount spent per pupil for each category of spending.

- Materials purchased — The number of materials purchased in each category (books, periodical subscriptions, software, etc.) should be totaled. Dividing the number of materials purchased in each category produces the average price per item, an important key to justifying the numbers of items needed.

Once these figures are obtained, the national data is reviewed to find schools of similar size, similar diversity levels, and similar levels. The data is compared, and the results reported in chart or graph form. Numbers alone are just numbers, so the stories behind the data — what it means to have an adequate collection, budget, or staff — should also be reported.

Output Measures

The more recent research into school library media programming parallels to the changing role of the school library media specialist, and general direction of education. Accountability, more than a buzzword, has become the aim unto itself, with a strong reliance on standardized testing. The impact of school library media center programs on academic achievement is the focus of more recent school library media center research.

This type of measure is the most valuable to research at the local school level. If school library media centers were widely accepted as crucial to student success, perhaps input measures and model programs research would increase as well.

Keith Curry Lance is by far the strongest advocate of this type of research. Lance began this research with a Colorado study testing links between elements of school library media programs and academic achievement, specifically student performance on a Colorado achievement test. Lance discovered that school library media center funding and instructional activities of the school library media specialist did have a positive impact on student achievement.[13] Lance has tested this research in different states, all with strong positive results.[14]

Action research applied to his studies can take the statewide results and compare them with the local results.

This type of action research is more difficult to do in the school, mainly because it involves people other than the school library media specialist. Obtaining student records, test scores, and analysis of test question items may be difficult for the school library media specialist or, in some cases, be prevented by school policy.

Still, cooperation of classroom teachers will be extremely helpful, especially in the use of in-class assessments. With output measures research, the choice of a research question is critical. What is the library media center program trying to impact? Student achievement as a broad topic must be narrowed to a specific subject area, specific grade levels, or even a specific classroom. For instance, when testing a reading encouragement program and the effect on reading scores, the library media specialist must know the average increase of reading test scores from one test period (end of year) to the next test period for the same group of students. If students in 4th grade generally improve one grade level in reading to the end of 5th grade, the library media specialist can then assess whether the implemen-

tation of a reading improvement program can improve this.

Issues in Action Research

Despite the growing popularity of action research in teacher education and training, many researchers dispute the effectiveness and the wisdom of conducting such research. Researchers claim that action research, instead of assisting in the implementation of research-based change, may slow that implementation by watering down the results with uncontrolled quasi-research efforts. Certainly there are issues with action research that the beginning library media specialist as researcher must consider.

Confidentiality

The legal ramifications of a breach of confidentiality of student records must be paramount in the action researcher's research design. Protecting the privacy of individual students and of individual teachers is an obvious need. Teacher comments must be confidential. Student comments, records, and other data should be treated with extreme care and within school district policy. Action research involving students and teachers should be approved by school district authorities or in conjunction with a university human subjects review board.

Before beginning any type of action research, the researcher should develop a proposal indicating research goals, questions to be considered, data to be collected, probability analysis, and how results will be shared.

Generalizing Results

The validity of research depends on the ability of the researcher to control the environment. Control of variables that may affect the research outcome, use of sampling techniques to identify participants, and strict adherence to qualitative research methods techniques are crucial elements in research. These same elements will probably not be used in ac-

tion research. The action researcher concentrates on the local school setting. Convenience sampling is used to identify respondents, meaning that the school library media specialists may choose a grade level most likely to respond, or with whom they have a previous relationship. Finally, most school library media specialists are not trained in research techniques. For these reasons, action research usually is not easy to generalize because the results only apply in the context of one school setting.

Conclusion

Notwithstanding the above cautions, the value of action research to the school library media profession cannot be overstated. The school library field has reached a level of maturity based on sound research findings underscoring the value of the school library media program in the educational process. These findings are widely reported in the school library media field. Action research is a tool for the school library media practitioner to give local school context to those research findings, so that school- and district-level decisionmakers place the school library media center at the heart of the educational process in our schools.

References

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[14] Lance has continued his original Colorado research and is replicating it throughout the nation. For updated studies on school library research, visit his Web site at <www.lrs.org>.