

Analysis of Selected Research 1992 [helmick]

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A wide range of new research topics has emerged since the publication of the 1992 *School Library Media Annual*. Other than Hopkins's¹ further analysis of data collected in the national study of censorship in secondary schools that was reported last year, most studies targeted subjects not previously addressed. Beyond hints of the common threads of accountability and technology, research reported in the past year defies categorization. Concepts and recommendations embedded in *Information Power* appeared to have a strong influence on research topics.

Doll² analyzed the research of environmental psychologists who have studied the relationship between human behavior and such phenomena as perceptions of personal space, territoriality, privacy, environmental variation, and color. Her major thesis was that the design of library media facilities may influence use patterns, learning, and user behavior. Doll enumerated a lengthy list of research needs including an effective relationship between human developmental stages and elements of the library media center environment. Few research efforts that investigate environmental psychology issues have focused on school library media facilities. Although the hypotheses addressed by research on adult populations in academic and public libraries may be adaptable, there are variables that are unique to school library media centers for which there is no precedence in those studies.

Three studies focused attention on circulation and collections, but from very different perspectives. Garland³ hypothesized that sampling techniques applied to circulation statistics are a valid means of collecting data to document patterns of the use of nonfiction books in small collections such as those found in school library media centers. Random and purposive sampling techniques have been used to study circulation activity in large public and academic libraries, but the use of sampling for data collection with smaller collections such as those in school library media centers has been suspect. After comparing data using purposive sampling techniques, she concluded that circulation activity over short time periods in an elementary school library media center correlated "very highly with annual circulation" statistics. Using a stratified, randomly selected sample, that is, one week from each of the four grading periods, Garland collected nonfiction circulation data for two atypical weeks and five typical weeks. An atypical week was defined as one in which the media center was closed part of the time.

Correlation of circulation data by subject was greatest ($r = .98$) when the entire sample was compared with annual circulation data. It was lowest ($r = .81$) when data from an atypical week were compared with annual data. Garland cited the need for circulation analyses in school library media centers to identify areas for productive joint planning and consultation with classroom teachers, to help assess the degree to which the program supports the school's mission, and to justify funding for curricula areas. The research offers evidence that appropriately designed sampling techniques may be a valid methodology to collect data for circulation analysis in school library media centers.

To investigate the degree to which automated circulation systems affect the amount of time spent on 14 tasks, Nancy Everhart⁴ studied 18 secondary school library media specialists, 9 of whom had automated circulation systems and 9 who used manual circulation procedures. Using a work-sampling methodology, random alarm mechanisms (RAMs) prompted the participants to log activities onto a checklist of work categories for a 20-day time period. Although the study confirmed earlier research showing that the amount of time spent on the development of educational programs is low, the 6.4 percent for library media specialists with automated circulation systems compared to the 2.2 percent with manual procedures was a statistically significant difference. Hypothesis testing, however, did not show a statistically significant difference in the amount of time spent on instruction or reference activities between the matched pairs. No difference was found between the two groups in the amount of time spent on clerical tasks. It should be noted, however, that variables that may have influenced these data, such as the presence of paid clerical support, student help, or use of microcomputers, were not reported. Another aspect of this study was time allocation predictions by a group of “experts,” the Standards Writing Committee of *Information Power*. The committee's predictions for time allocation matched the real work environment most closely for selection and circulation tasks and diverged widely for development of the educational program, administration, providing access, and personal time.

A study commissioned by the American Association of University Women revealed that there is a rapid decline in self-esteem among female students, especially white and Hispanic, from elementary to middle grades. Based on the indications of that study, Harvard-Slager⁵ investigated the prevalence and quality of biographies in four elementary schools in a large school district serving a culturally and socioeconomically diverse population. A predetermined database of women's biographies was compared with the holdings in the four libraries, and quality points determined by appearance on recommended lists were assigned to the biographies. Both individual and collective biographies were examined. Findings revealed that none of the collections in the four schools adequately addressed females of any ethnic background. The ratio of male to female biographies was 4:1 for a student body that was 51 percent male and 49 percent female. Many of the available biographies were those of presidents' wives, and many were of poor quality. Neither did the collection represent cultural diversity; the white culture was vastly overrepresented and the black culture vastly underrepresented. In a library media center that served a Hispanic population in excess of 90 percent, less than 1 percent of the biographical material reflected that ethnic group. The research recommended that school library media specialists make a “conscious effort to collect strong, positive women's biographies of good literary quality” (p. 395) and demand that publishers make those materials available because positive role models provide a foundation for high self-esteem.

Broad concepts of instruction, integration of information literacy skills, and accountability were addressed in three studies. Bell and Totten's⁶ sociometric study investigated the frequency with which teachers chose the library media specialist to work with them on instructional problems and other teacher-related factors. The population of 58 elementary classroom teachers and 39 library media specialists was taken from 39 relatively small Texas school districts. The stratified sample included 218 teachers in the bottom 25 percent of the elementary schools and 240 teachers in the top 25 percent of the elementary schools as defined by results of the Texas Educational Assessment of Minimum Skills test

(TEAMS). All population units were similar in terms of demographic and economic characteristics, and at least 40 percent of all students in each school resided in poverty-level households. With one exception, all had minority enrollments of at least 43 percent. The data collection instrument, the Campus Sociometric Questionnaire, contained 15 descriptive problems. Five were “low level” information-oriented problems, five were “high-level” information-oriented problems, and five were distracter items not related to instruction. Variables studied included gender, grade level taught, and career-level status as determined by the three levels on the mandated Texas Career Ladder. It was concluded that grade level taught and gender had no significant impact on the degree to which subgroups chose the library media specialist as an instructional team member. They also concluded that teachers in academically successful schools tended to choose the library media specialist significantly more frequently than teachers in academically unsuccessful schools. This important research invites further investigation of the characteristics of academically successful schools that encourage library media specialist cooperation in instructional activities and of the personal attributes of individuals who teach in “high-achievement” schools vis-à-vis those who teach in “low-achievement” schools. Bell and Totten emphasized the importance of the library media specialist working with all teachers, especially instructional leaders who influence other educators in the building.

After studying the use of CD-ROM reference resources in 381 secondary schools in Pennsylvania and Maine, Mendrin⁷ concluded that “the most profound educational outcome was that special education, learning disabled, and average students are not only more motivated but more productive” (p. 29) and that library media centers tend to have larger collections of periodicals and microfiche if they use CD-ROM technology. Over 75 percent of the library media specialists with CD-ROM reference tools provided formal instruction for students. The average training session, however, lasted for 15 to 30 minutes. Perhaps the most important findings were those relevant to in-service programming. Over half of the library media specialists with CD-ROM systems provided in-service programs. English and social studies teachers were more likely to receive training than those in other disciplines. For example, only 17 percent of the library media specialists introduced science teachers to CD-ROM databases. In-service for faculty increased the use of CD-ROM resources for reference in specific subject areas, increased classroom instruction by teachers, and motivated teachers to update the curriculum. In-service programming tended to create an environment in which the library media specialist became more involved in curriculum planning and one in which teachers better understood the need for students to develop information literacy skills.

Latrobe⁸ proposed to explore the progress of 108 school library media programs in Oklahoma, from 1988 to 1991, according to principles and guidelines in *Information Power*. The data collection instrument, The Assessment of the Building-Level Library Media Program, included relevant items in five categories: program; materials and equipment collection; the media specialist; personnel; and facilities. Although the self-selected population may not have been representative of library media specialists in the state, it was deemed appropriate because those individuals were “likely to demonstrate positive effects from *Information Power*” (p. 38). Two important trends indicated by the data were that change from 1988 to 1991 was generally positive and that over one-fourth of the items showed statistically significant positive gains. The implementation of automated circulation systems marked the single greatest gain in the three-year time frame. Three of the five

categories, library media specialist, program, and materials and equipment collection, showed statistically significant gains. Latrobe's analysis of factors that accounted for success and barriers to success suggested that library media specialists perceived positive public relations as the most beneficial factor in meeting their goals. Funding was the second-highest-rated factor as a contributor to success; however, funding changes from 1988 to 1991 were not statistically significant. Personal characteristics such as perseverance, dedication, enthusiasm, hard work, and the acquisition of special skills were also cited as contributors to success. Almost half of the respondents reported that lack of funding was an impediment to success. Funding-related barriers included the high cost of equipment and materials and the fact that media centers are not district budget priorities. Lack of time, relationships with other school personnel, and inadequate facilities were also identified as barriers. Labrobe indicated that the study has implications for the refinement of the assessment instrument and for revisions of *Information Power*.

Van Deusen's⁹ timely investigation of the effects of flexible versus fixed scheduling revealed that the best-case scenario to enhance school library media specialists' involvement in curriculum and integration of library skills is a flexible schedule/team-planning environment. The population of fifth-grade teachers and library media specialists with full-time positions—who were nominated by their supervisors or coordinators—in Iowa schools represented 35 schools with flexible media center schedules and 26 with fixed schedules.

Factors in the curriculum involvement variable included gathering materials, designing instructional objectives, collaborating with teachers in the design of teaching and learning activities, teaming with teachers in instruction delivery, and evaluating units of study. Integration of library skills into classroom teaching and learning activities was the second variable investigated. The methodology was structured to determine the amount of involvement of media specialists in the five factors of curriculum involvement. Data indicated that in all five factors of curriculum involvement, the “best-case scenario was always a flexible schedule combined with team planning, and the worst-case scenario was most often a fixed schedule combined with team planning” (p. 175). Although skills mean scores for flexible scheduling combined with team planning were higher than for any other combination of style and scheduling pattern, t-test analysis produced no significant difference “between fixed and flexible schedules when measuring the mean scores on skills” and “between team planning style when measuring mean scores on skills” (p. 178).

Burroughs¹⁰ analyzed two studies conducted by Arthur Applebee, which proposed to identify, among other phenomena, characteristics and practices that may be unique among award-winning schools. The entire research project was published in 1993 by the National Council of Teachers of English.¹¹ One study surveyed 196 public, 62 Catholic, and 48 independent schools. It also included 63 schools that had won the NCTE Achievement Award in Writing and 42 schools recognized by NCTE for Centers of Excellence programs. In the second research project, a case study of 17 schools with reputations for excellence in English programs, two observers were sent to each school to visit classrooms; distribute questionnaires; and interview teachers, media center specialists, and students. Findings indicated that achievement award schools and independent schools had the largest number of volumes in the media center collections. It was also determined that achievement award schools tended to have more of the 24 books on a list of selected titles that included women

and minority authors. In terms of accessibility, 80 percent of the achievement award schools and 85 percent of the centers-for-excellence schools participated in resource-sharing networks compared to 65 percent of the public schools. Teachers in achievement award schools were “far more likely to draw upon the collection of literary criticism than all other groups of teachers” (p. 160). Data also indicated that 70 percent of the teachers in achievement award schools rated their libraries as excellent compared with fewer than 50 percent of the teachers in the public schools.

Carson¹² developed a 48-item, Likert-type instrument to measure the way school library media specialists perceive themselves as their roles and responsibilities are described in *Information Power*. The scale, based on theoretical psychological constructs, was examined for content validity and field-tested with 21 graduate students who had successfully completed a practicum in a school library media environment. Although results of the study cannot be generalized, findings did reinforce the concept that library media specialists' responsibilities are composed of many complex tasks. Carson expects to revise the instrument for presentation to a randomly selected population of school library media specialists.

Two studies on the national level and one on a state level profiled the status of library media centers, and another state study explored the professional reading patterns and interests of school library media specialists. The state study investigated the presence and use of technology in library media centers; one of the national studies focused on telecommunications.

Data to supplement the 1990 funding status report by editors of *School Library Journal* were collected in fall 1991 and reported in summer 1992.¹³ One official from each of 38 states responded to the phone and fax surveys that were designed to investigate public school enrollment, number of library media specialists in the state, and conditions of educational funding. A brief narrative described conditions reported by the respondent in each state. It was concluded that Wisconsin had the highest mean ratio, 1:58, of librarians to students. California, at the opposite extreme, reported the lowest mean ratio with one librarian for every 8,511 students. A median ratio of 1:669 was extrapolated from the data provided in the article. In general, respondents' attitudes about funding for school library media centers were more pessimistic in 1991 than was revealed in the 1990 study.

Using an informal questionnaire, McDonald¹⁴ collected data via LM_NET regarding access, use, and cost of Internet in schools in the nation. Primarily, responses reflect the perceptions of users rather than of system administrators. Preliminary findings, based on information provided within one week following the distribution of the survey in late February 1993, indicate that there is considerable interest in Internet access. Data were collected from respondents in 15 states. Eight states, California, Florida, Massachusetts, New Mexico, North Dakota, Texas, Virginia, and Washington, provide access for all school districts, however, not necessarily to all schools within the districts. Pilot projects are under way in North Dakota and New Hampshire. Planning is taking place in Missouri, Kansas, and Tennessee. A Michigan respondent stated, “Connection is by private initiative of the teacher.” Distinctions between “access” and “available” were unclear; however, local school units most frequently provide equipment, and another agency such as the state provides nodes and toll-free access. Student access is provided in four states, two of which require permission or special arrangements. Start-up costs appear frequently to be at least partially

subsidized by institutions of higher education, grants, consortia, and state education agencies. Numerous variations of funding to support continuing costs, including user fees and state funds, were reported. When queried about use by discipline, all reported that library media specialists constitute the largest user group; however, specific subject areas were also mentioned. As more information from this study is synthesized and becomes available, it may have implications for modeling, rationale for lobbying legislative groups, and local budgeting.

Jones¹⁵ reported that 36 states, the District of Columbia, and the Librarians and Media Specialists Association of Germany responded to the request that each state coordinator of the White House Conference on Library and Information Services (WHCLIS) report relevant activities before July 1991. Narrative reports detailed the activities, goals, and agendas of respondents. Common concerns among the coordinators included the need for funding, a lack of technology for automation and networking, and the need for cooperative efforts between public and school libraries. As a result of high-profile involvement exemplified by generating position papers, serving on planning committees, and lobbying to become delegates, almost 20 percent of the WHCLIS delegates were school library media specialists.

The Technology Committee of the Missouri Association of School Librarians distributed a questionnaire to every school library media specialist in the state in an effort to determine the prevalence and use of technology.¹⁶ Approximately 42 percent of the school library media centers in the state were represented by the 695 usable returns. Respondents reported that a lack of funds, space, personnel, and administrative support were barriers to the purchase of technology. Findings suggested that schools tended to phase in automated circulation and electronic catalogs. Secondary schools were more likely to have OPACs (online public access catalogs), automated circulation systems, CD-ROM encyclopedias, reference tools, laser disks, interactive multimedia, and access to telecommunication systems than were elementary schools. Telecommunication systems, available in 41 percent of the buildings, apparently are underutilized. Current-events classes, access to university and public library catalogs, social studies, e-mail, and access to Dialog were the most frequently cited uses. Channel 1, the controversial news and features commercial television delivery system, is more prevalent in small rural schools than in metropolitan areas.

Eighty school library media specialists in Oklahoma responded to a professional reading survey. Basing her study on the assumption that reading professional journals is a critical function of continuing education, Latrobe¹⁷ reported that 88 percent of the respondents regularly read 2.8 journal titles. As anticipated, *School Library Journal* and *School Library Media Quarterly* are the most frequently read journals. Five topics, literature activities, computer use for management, materials for children and young adults, networks and resource sharing, and curriculum, accounted for more than 50 percent of priorities for continuing education. Latrobe then categorized the articles in the two most frequently read journals and the *Journal of Youth Services in Libraries* from 1987 through 1991 to determine the congruity between librarians' interests and journal content. Fewer articles were found in the areas of literature activities, computer utilization for management, and networks and resource sharing. Articles related to technology did not have an emphasis in any of the journals; however, curriculum was addressed in all three. The greatest percent of articles relevant to materials for children and young adults appeared in the *Journal of Youth Services*

in *Libraries* (43%) and *School Library Journal* (39%). The former was regularly read by only 8 percent of the participants; the latter by 68 percent.

NOTES

1. Dianne McAfee Hopkins, "Perspectives of Secondary Library Media Specialists About Material Challenges," *School Library Media Quarterly* 21 (Fall 1992): 15-24.
2. Carol Doll, "School Library Media Centers: The Human Environment," *School Library Media Quarterly* 20 (Summer 1992): 225-29.
3. Kathleen Garland, "Current Themes Regarding Library and Information Skills Instruction: Research Supporting and Research Lacking," *School Library Media Quarterly* 20 (Winter 1992): 103-10.
4. Nancy Everhart, "An Analysis of the Work Activities of High School Library Media Specialists in Automated and Nonautomated Library Media Centers," *School Library Media Quarterly* 20 (Winter 1992): 86-99.
5. Norma D. Harvey-Slager, "Left Out, Way Back, and Catch-Up: The Positions Played by Women's Biographies in Four Elementary Schools," *Journal of Youth Services in Libraries* 5 (Summer 1992): 385-97.
6. Michael Bell and Herman L. Totten, "Cooperation in Instruction Between Classroom Teachers and School Library Media Specialists: A Look at Teacher Characteristics in Texas Elementary Schools," *School Library Media Quarterly* 20 (Winter 1992): 79-85.
7. Roxanne Baxter Mendrinios, "CD-ROM and At-Risk Students: A Path to Excellence," *School Library Journal* 38 (October 1992): 29-31.
8. Kathy Howard Latrobe, "Evaluating Library Media Programs in Terms of Information Power: Implications for Theory and Practice," *School Library Media Quarterly* 21 (Fall 1992) 37-45.
9. Jean Donham van Deusen, "The Effects of Fixed Versus Flexible Scheduling on Curriculum Involvement and Skills Integration in Elementary School Library Media Programs," *School Library Media Quarterly* 21 (Spring 1993): 173-82.
10. Robert Burroughs, "Supporting Successful Literature Programs: Lessons from a New National Survey," *School Library Media Quarterly* 21 (Spring 1993): 159-63.
11. A. Applebee, *Literature in the Secondary School: Studies of Curriculum and Instruction in the United States* (Urbana, IL: National Council of Teachers of English, 1993).
12. C. Herbert Carson, "The Development of a Scale to Measure the Self-Efficacy of School Library Media Specialists," *School Library Media Quarterly* 21 (Spring 1993):

165-70.

13. GraceAnne A. DeCandido and Alan P. Mahony, "Overworked and Underbudgeted: Staff and Funds for School Library Media Centers 1992," *School Library Journal* 38 (June 1992): 25-29.

14. Frances McDonald, "Internet Survey—Preliminary Results," (Machine readable data file taken from LM_NET) (Mankato, MN: Minnesota Educational Media Organization, February 1993).

15. Thea Jones, "Toward Success: School Library Media Associations Promote School Library and Youth Information Needs," *School Library Media Quarterly* 20 (Spring 1992): 142-47.

16. Aileen Helmick, "Through the Magnifying Glass: Technology in Missouri School Library Media Centers," *Media Horizons* (1993): 9-13, 51, 53-58.

17. Kathy Latrobe, "Continuing Education Needs and the Professional Reading of School Library Media Specialists," *Journal of Youth Services in Libraries* 5 (Summer 1992): 407-10.