

Current Trends in School Library Media Centers

JACK R. LUSKAY

DURING THE PAST TWENTY years, the school library has emerged as the school library media center. The school library of the past functioned as a central place for depositing books, periodicals, and pamphlets for use by students and teachers as needed. Reference materials did not circulate. Few, if any, nonbook resources were found in the library. Instruction in the use of resources was minimal and not related to the curriculum. The collection was well-organized, silence was the basic rule, and the librarian worked in isolation from teachers. The school library, which mainly existed at the secondary level, was viewed, at best, as an educational support service.

Federal funds granted through the Elementary and Secondary Education Act of 1965 and of 1975 along with technological advancements had a tremendous impact on education. In many schools, the traditional classroom became the open classroom. The textbook was replaced by a multi-media approach to teaching and learning. Team teaching became common, as did individualized instruction and independent study. Teaching and learning moved from rote memorization to an emphasis on discovery, inquiry, problem solving, comprehension, and utilization.

The educational changes of the 1960s and 1970s have shaped the development of the school library of the 1980s. The school library media center has become the "laboratory and workshop" envisioned as early as 1913 by Lucille F. Fargo.¹ Print and nonprint media are available

Jack R. Luskay is Library Media Specialist, John Jay Senior High School, Katonah, New York.

equally to students and teachers. Activity has replaced the traditional silence. Instruction in the use of resources became related to the curriculum and the library media specialist has become a partner in the teaching/learning process. During the 1960s and 1970s, the number of centralized elementary school library media centers increased from 34.1 percent during the 1958-59 school year to 81.1 percent in 1974.²

Reference service underwent many changes during the 1960s. The school library media specialist was no longer interested in simply responding to requests for information. The *Standards for School Library Programs*, published in 1960 by the American Association of School Librarians (AASL) defined the principles that still guide the development of reference service in schools. The document stated that:

1. Students use the school library as a laboratory for reference and research in which they locate specific information and expand their knowledge by using a wide variety of printed and audio-visual materials.
2. Research or reference work, whether done individually by students or in groups under the guidance of teacher and librarian, forms an important element in that part of the instructional program that is concerned with teaching students to analyze, evaluate, and interpret.
3. An integrated program of library instruction taught throughout their school career enables children and young people to acquire independence and competency in their search for information and their use of materials....Nevertheless, the mere processes of locating materials or of finding information are not always profitable uses of a student's time, and thus, whenever appropriate, the library staff performs services of this nature for the student.³

Reference service in the schools of the 1980s and beyond is linked to an understanding of student uses of resources and facilities, to the increased involvement of school library media programs in networks, to the further development of bibliographic instruction at all levels, to the increased use of computer technology in school library media centers, and to the availability of funds from federal, state and local sources.

The National Center for Education Statistics conducted a survey of public school library media centers in 1978 covering the 1977-78 school year. The survey, *Statistics of Public School Library/Media Centers 1978*, reported that of the 85,063 public schools surveyed, 84 percent had a library media center. Public school library media centers held 541 million volumes. Secondary school library media centers averaged 1119 uses per week as compared to 629 for elementary schools. School library

School Library Media Centers

media centers held 3.8 million periodical subscriptions. The survey reported that there were 19.2 million reference transactions. The average number of weekly transactions per library media center was 271.⁴

The Information Function of the School Library Media Center

The current national standards for school library media programs are a joint endeavor of AASL and the Association for Educational Communications and Technology (AECT). Published in 1975, *Media Programs: District and School* defines the concept of the library media program and treats reference service as a part of the information function. According to *Media Programs: District and School*: "Programs of media services are designed to assist learners to grow in their ability to find, generate, evaluate, and apply information that helps them function effectively as individuals and to participate fully in society."⁵ The document details four interrelated functions of the library media program that are derived from the behavior of the library media specialist. These functions—design, consultation, information, and administration—are interwoven into all parts of the library media program.⁶

In analyzing the information function, the national guidelines state: "The information function relates especially to providing sources and services appropriate to user needs and devising delivery systems of materials, tools, and human resources to provide for maximum access to information in all its forms."⁷ Elements of the media program essential to the information function include:

1. identifying users' needs for information;
2. providing reference service to users;
3. providing bibliographic service to users;
4. promoting functional knowledge of the variety of resources and approaches for obtaining information;
5. providing access to information available from outside agencies, including networks; and
6. providing resources and guidance in their use in response to the individual user's needs, interests, and learning styles.⁸

Media Programs: District and School calls for a program that is structured and sequential and yet flexible. The standards clearly recognize that, "In all curriculum areas teachers and students seek information on appropriate levels and in suitable formats."⁹ The document further notes that "media [print and/or nonprint resources] help to identify the problem and supply information and method to solve it."¹⁰

Reference service is an integral part of the information function. It does not stand alone, easily separated from the other activities occurring in the library media center. Instruction in library media center use, assistance in the identification and utilization of appropriate media, and provision of ready-reference services are all a part of the library media program.

Media Programs: District and School deals with programs, hence reference service, at four levels—school, district, regional, and state. In addition, it discusses the importance of networks to school library media programs. The guidelines stress the importance of teachers and students having access to information and information sources.

The Library Media Program

The library media program is an integral part of a school district's educational program. It is a unified program that incorporates reference and other information management skills into the curriculum. According to Davies, the district library program is: "[A] plan, both developmental and operational, designed and structured to achieve the fullest realization of district educational goals and objectives through the integration of library media service and the instructional process."¹¹ She defines the building-level library media program as: "A developmental and operational plan wherein the building library media center functions as a learning laboratory where the use of all media, print and nonprint, is purposeful, planned, and integrated with the educational program and instructional processes...."¹² Such a philosophy allows for the design and development of a library media skills program that is planned and sequential, that enables students to meet their educational and personal information needs, and that prepares them to become life-long library users. Information management skills are requisite to success in an information age and must be taught to students beginning at the elementary level.

Library media skills include the traditional reference skills such as the use of the encyclopedias and indexes as well as newer skills related to audiovisual and computer technologies. These skills are not taught in isolation from the curriculum, and therefore, the design of a library media skills program requires, first of all, an identification of the skills that need to be taught and then an analysis of the skills in terms of their relationship to the curriculum and to a grade level. The library media program, which needs to be developed cooperatively by teachers, administrators, students, and library media specialists, provides for the

School Library Media Centers

systematic introduction, reinforcement, and extension of reference and other library media skills.

In *The School Library Media Program: Instructional Force for Excellence*, Davies includes the "Thinking-Learning-Communicating Skills Continuum, K-12" as a tool for use in developing a library media skills program integrated with the curriculum.¹³ Table one provides examples of learning skills related to locating information. The skills continuum developed by Davies includes all skills and not only those directly related to the library media program.

The National Council for the Social Studies developed "Social Studies Skills: A Guide to Analysis and Grade Placement" that was published in *Skill Development in Social Studies*.¹⁴ It related library resources and skills to the social studies curriculum. The yearbook also identified principles that teacher and library media specialists should apply in designing programs to teach reference and other skills. These stress that:

1. The skill be taught as an integrated part of a unit of study and as needed by the learner.
2. The learner be motivated to acquire and to develop the skill.
3. The learner be supervised in his/her initial attempts to apply the skill.
4. The learner be given repeated opportunities to apply the skill based upon his/her performance.
5. The learner be given individual assistance based upon testing and follow-up activities.
6. Skill instruction be provided at increasing levels of complexity.
7. Skills be applied through various learning situations so that a transfer of learning can take place.
8. Skills be developed concurrently.¹⁵

As previously noted the library media program is a cooperative effort of the school community. The skills that relate to information use need to be incorporated into the syllabus of each course. It is not enough for the library media specialist to identify the skills and to relate them to the curriculum. Teachers need to understand the importance of information skills and their relationship to the curriculum. The teacher and the library media specialist must plan together to make students competent in their search for information and in their use of it.

Table 1 THINKING - LEARNING - COMMUNICATING SKILLS
CONTINUUM, K-12

Part Two: Learning Skills

- | I. Locating Information | Introduce | Reinforce | Extend |
|---|-----------|-----------|--------|
| D. Make effective use of encyclopedias | | | |
| 1. Using encyclopedias as data sources for information about | | | |
| a. Persons | | | |
| b. Places | | | |
| c. Things | | | |
| d. Events | | | |
| e. Processes | | | |
| 2. Recognizing the distinguishing characteristics of | | | |
| a. General encyclopedias | | | |
| b. Special encyclopedias | | | |
| 3. Gaining facility in using | | | |
| a. Key words | | | |
| b. Guide words | | | |
| c. Cross references | | | |
| d. Indexes | | | |
| e. Reference outlines and study guides | | | |
| f. Illustrations | | | |
| 4. Updating encyclopedias by checking annuals and yearbooks for | | | |
| a. Art | | | |
| b. Business | | | |
| c. Chronologies | | | |
| d. Drama | | | |
| e. Education | | | |
| f. Fashion | | | |
| g. International affairs | | | |
| h. Legislation | | | |
| i. Literature | | | |
| j. Medicine | | | |
| k. Motion pictures | | | |
| l. Necrologies | | | |
| m. Politics | | | |
| n. Radio and television | | | |
| o. Science | | | |
| p. Special reports on major issues | | | |
| q. Sports | | | |
| r. Transportation | | | |
| s. Urban problems and development | | | |
| t. Year in review | | | |
| 5. Recognizing limitations of encyclopedic information | | | |
| a. Serves as an introduction; provides an overview of skeletal facts | | | |
| b. Serves as an outline identifying main topics to be researched further in other sources | | | |

- H. Make effective use of U.S. Government documents, publications and indexes
1. Recognizing the distinguishing characteristics and informational value of federal documents
 - a. Congressional documents
 - The Congressional Record
 - House and Senate Reports and Documents
 - Bills, resolutions, acts, statutes, laws
 - Hearings and Committee Prints
 - b. Judicial documents
 - c. Executive documents
 - Federal regulations
 - Department documents
 - Presidential documents
 2. Recognizing the distinguishing characteristics and informational value of indexes to U.S. government publications
 - a. Monthly Catalog is the only comprehensive, current listing
 - b. Selected U. S. Government Publications is issued biweekly
 - c. Price Lists are issued by 80 departments and agencies
 3. Realizing that the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, is the information source and the sales agent for government publications.
- I. Make effective use of pamphlets
1. Recognizing the distinguishing characteristics and informational value of pamphlets
 - a. Unbound publication
 - b. Fewer than 100 pages
 - c. Complete in itself
 - d. Excellent sources on current topics not available in book form
 2. Recognizing that unbound pamphlets are usually not filed with books
 - a. Usually filed in filing cabinets (vertical files); arranged alphabetically by topic or subject
 - b. Most important pamphlets are usually listed in the card catalog
 3. Recognizing that the following are prolific sources of pamphlet material
 - a. Local, state, and national governments
 - b. The United Nations
 - c. Associations
 - d. Business and industry

Taken From: Davies, Ruth Ann. The School Library Media Program: An Instructional Force for Excellence. 3rd ed. New York: R.R. Bowker, 1979, Appendix L, p. 488-489; 494-496.

Instruction

Teaching library media skills is the shared responsibility of the classroom teacher and library media specialist. A systematic planning process must be established between teachers and library media professionals. During a planning session, the teacher and library media specialist need to assess the role of the library media center in the development of the instructional unit and in meeting class and individual needs. Together they must identify:

1. specific instructional objectives;
2. specific content;
3. specific library media skills to be introduced, reinforced, and/or extended;
4. specific resources;
5. specific teaching-learning strategies;
6. specific means for future application of library media and other skills learned; and
7. specific evaluation procedures.

Techniques of providing library media instruction are as diverse as the schools in which the methods are employed. Some library media specialists are traditional in their use of instructional modes and rely heavily upon the lecture supplemented with sound filmstrips, transparencies, and worksheets. Others are innovative and utilize self-paced, mediated instructional packages; videotaped demonstrations on the use of specific reference sources; and programs developed for use on a microcomputer. As school library media centers go online for access to bibliographic databases, the library/media specialist will need to rethink instructional priorities and methods.

School districts have developed and packaged their library media program in varying degrees and in different formats. The Upper Merion (Pennsylvania) Area School District designed a library media program for kindergarten through grade twelve entitled *Action and Interaction*.¹⁶ The two-part guide, for elementary and secondary levels, identifies goals and specific objectives for each goal and the grade levels for each skill. A chart at the beginning of the guide indicates whether a skill is to be introduced, reinforced, or extended.

The guide, under each of the five goals for students, suggests action for which the library media specialist is responsible and interaction between the teacher and library media specialist to achieve each goal. *Action and Interaction* identifies library media skills but allows individual teachers and library media specialists to determine curriculum

School Library Media Centers

relationships and specific teaching-learning strategies. Tables 2 and 3 provide examples of library media skill development.

Table 2 ELEMENTARY LIBRARY MEDIA PROGRAM

GOAL THREE - SEARCHING MATERIALS

OBJECTIVE 3 - REFERENCE COLLECTION

- A) The student will be able to locate information in an encyclopedia

<p style="text-align: center;"><u>ACTION</u></p> <p>Students will come to library for enrichment; librarian will assist individually.</p>	K-2	<p style="text-align: center;"><u>INTERACTION</u></p> <p>Teachers may wish to ask librarian for pre-encyclopedias for classroom use.</p>
<p style="text-align: center;"><u>ACTION</u></p> <p>Students will discuss role of encyclopedias as <u>first</u> source of general information. (FILMSTRIP)</p> <p>Students will review encyclopedia for charts, graphs, maps; students will discuss need for updating information.</p> <p>Students will answer reference questions by using encyclopedias, and will note aids such as guide words, index, and key words.</p>	3-4	<p style="text-align: center;"><u>INTERACTION</u></p> <p>Teachers may wish to send students to library for enrichment. Staff will assist individual and small groups as much as possible.</p>
<p style="text-align: center;"><u>ACTION</u></p> <p>REVIEW 3-4</p> <p>Students will discuss arrangement of encyclopedias: alphabetical, topical, and chronological.</p> <p>Students will review various types of encyclopedias: general, historical, scientific, and other.</p>	5-6	<p style="text-align: center;"><u>INTERACTION</u></p> <p>Teachers may wish to send students for enrichment at any time. If questions cannot be answered, librarian will send them on to Wolfshon and/or Montgomery County network.</p>

Taken From: Action and Interaction: An Elementary Library Media Program, Upper Merion Area School District, King of Prussia, PA 19406.

Another approach is used by the School District of Lancaster, Pennsylvania.¹⁷ The library media skills have been identified in a general way at the elementary and secondary levels. Flexibility is emphasized, as is continuous planning and evaluation at two levels—among curriculum coordinators and among building-level teachers and library

JACK LUSKAY

TABLE 3 SECONDARY LIBRARY MEDIA PROGRAM

GOAL THREE - RESEARCH MATERIALS

OBJECTIVE - REINFORCE AND EXPAND

C - Reference Tools
Grades 7-12

ACTION

Students will identify and use the various kinds of reference tools.

INTERACTION

Teachers may wish to reinforce the use of the various reference tools by making specific assignments.

Encyclopedias

General

Examples:

Encyclopaedia Britannica
Encyclopedia Americana
The World Book Encyclopedia

Special

Examples:

Encyclopedia of World Art
Grzimek's Animal Life Encyclopedia
McGraw Hill Encyclopedia of Science and Technology

Indexes (Indices)

Examples:

Education Index
Reader's Guide to Periodical Literature
Social Sciences and Humanities Index

Special Subject Area Tools

Examples:

Book Review Digest
College Blue Book
Granger's Index to Poetry
International Library of Negro Life and History
New Oxford History of Music
Short Story Index

Taken From: Action and Interaction: Secondary Library Media Program, Upper Merion Area School District, King of Prussia, PA 19406.

media specialists. After instruction has been given, students and teachers are provided with formal and informal methods of evaluating the instruction. An example of an evaluation form is found in table 4. A variety of instructional modes are used. Table 5 is an example of a pathfinder used with a senior high school composition class. Students are encouraged to identify community sources of information and to use public and college libraries and special libraries such as those found at the historical society and newspaper. Table 6 identifies senior high school skills, and their curriculum relationships.

Table 4

INTRODUCTION TO LIBRARY RESEARCH -- EVALUATION

Recently you were given an introduction to library use and resources before starting to locate information for a general research paper. It would be helpful to the librarians if you would indicate as honestly as you can how useful various parts of this introduction were in helping you to understand library organization and to locate the information you needed.

Please circle the number representing the value to you of each part of this presentation:

	Not Useful		Moderately Useful		Very Useful
a) Pretest and discussion on general library knowledge	1	2	3	4	5
b) Outline of search procedure	1	2	3	4	5
c) Handout listing selected reference materials as well as periodical and other indexes	1	2	3	4	5
d) Pathfinder activity	1	2	3	4	5

In addition, please answer the following questions:

- e) Was the time allowed for items a) to d) above too long _____, too short _____, about right _____ ?
- f) Do you have any suggestions as to changes that would make this introduction more useful to you? (Use back of sheet if more space is needed.)

- g) Did you use libraries other than McCassey's in obtaining materials for your paper?

If yes, what other libraries did you use?

- h) Additional comments?

Prepared by: Library/Media Department, School District of Lancaster, Lancaster, PA 17602.

JACK LUSKAY

Table 5

PATHFINDER

Comp. I 3/82

NAME _____

A PATHFINDER to locating information on
(topic) _____

SCOPE of topic or THESIS STATEMENT:

Literature Search Steps:

1. An INTRODUCTORY ARTICLE on this topic can be found in the REFERENCE BOOK(S): (Give call number, article title, author, name of reference book, date of publication, volume number and paper number.)

2. BOOKS & AV MATERIALS on this topic are given in the card catalog under the following: (Consult Sears list of Subject Headings as well as the card catalog).
SUBJECT HEADINGS _____ Related DEWEY DECIMAL NUMBERS: _____

3. MAGAZINE ARTICLES on this topic can be located by using
 - a. The Readers' Guide to Periodical Literature -- an index to general interest magazines.
Relevant SUBJECT HEADINGS are: _____

 - b. INDEX(ES) to specialized magazines (Optional):
INDEX TITLE(S): _____ Relevant SUBJECT HEADINGS: _____

4. Other pertinent CURRENT INFORMATION SOURCES are (Facts on File, Newsbank, etc.)
SOURCE TITLE _____ Relevant SUBJECT HEADINGS: _____

5. Additional Information Sources particularly useful for this topic are:

Prepared by: Library/Media Department, School District of Lancaster, Lancaster, PA 17602.

In recent years, many books have been published to provide library media specialists with principles of library media instruction and with examples of activities that could be used in developing library media skills. Among them is *Teaching Media Skills: An Instructional Program for Elementary and Middle School Students* by H. Thomas Walker and Paula Kay Montgomery.¹⁸ The authors cover all aspects of

School Library Media Centers

Table 6 SENIOR HIGH SCHOOL SKILLS PROGRAM

Skill	Content	Curriculum Area
Level 10-11-12		
1. Observe IMC rules and procedures.	1. Orientation.	1. Comprehensive English.
2. Locate resources in the IMC.	2. Orientation.	2. Comprehensive English.
3. Operate AV equipment in the IMC.	3. Videotape players/microfilm reader.	3. Librarian's responsibility - IPI courses.
4.a. Locate information in specialized reference sources.	4. <u>Benet's Reader's Encyclopedia, Books in Print, Contemporary Authors, Editorials on File, Facts on File, Statesman's Yearbook, McGraw-Hill Encyclopedia of Science & Technology.</u>	4. Composition I and II. Global Education World Cultures.
b. Follow a standardized process for researching information for oral and written reports.		
5. Identify sources of information in the community.	5. Franklin and Marshall Library, Millersville State College Library, Lancaster Co. Public Library, Lancaster Co. Historical Society, Lancaster Newspaper Morgue.	5. Composition I and II Special Problem.

Prepared by: Library/Media Department, School District of Lancaster, Lancaster, PA 17602.

library media skills instruction including such areas as writing behavioral objectives, planning units, evaluating student performance, and implementing a program; and they give examples of lessons related to a subject area in a general way that may be adapted to actual situations. Table 7 illustrates an activity related to the reading and language arts program using *Webster's Biographical Dictionary*.

JACK LUSKAY

TABLE 7 REFERENCE SKILL

Reading and Language Arts - Biography

Media Skills Objective: Use subject-oriented resources to find specific information.

Level: 6-8

Learning strategy: Practice; game-puzzle

Performance Objective: Given eight last names of famous people and Webster's Biographical Dictionary, the student will find the complete names in order to finish the puzzle.

Resources: Puzzle, Webster's Biographical Dictionary, and a pencil.

Activity: Biographic Triplets

Directions:

The first names of these famous men are made up of triplets--groups of three letters--which may be taken from anywhere in the letter box illustrated below, reading from left to right. An example of G E O and R G E which spells George. Cross out the triplets in the box as you use them. Use Webster's Biographical Dictionary to identify the names. A few triplets will remain in the box. When properly arranged, they will form another name.

L O U Q U I A R D
U E L R O B G E O
N C Y S A M G O R
R G E E R E E R T
G R E C A L E D W
V I N U T H E L E

Names:

- _____ Bruce - July 11, 1274
- _____ Colt - July 19, 1814
- _____ Eastman - July 12, 1854
- _____ Gehrig - July 19, 1903
- _____ Adams - July 11, 1767
- _____ Coolidge - July 4, 1872
- _____ Dupont - June 24, 1771
- _____ Greig - June 15, 1843

Name left over: _____ Mendel

Assessment Criteria: The student will correctly complete the puzzle.

FROM: Walker, H. Thomas; and Montgomery, Paula K. Teaching Media Skills. Littleton, Colo.: Libraries Unlimited, 1977, pp. 105-106.

The use of games to teach library media skills has become very popular among elementary and junior high school library media specialists. Workshops on library media games are popular at conferences

School Library Media Centers

and common at library schools that have a school library media emphasis. Two examples of books available on gaming are *Games for Information Skills* by Margaret R. Tassia and *Gaming in the Library Media Center* by Irene Wood Bell and Robert B. Brown.

In *Games for Information Skills*, Tassia provides complete instructions for the construction and playing of games on the use of the dictionary, card catalog, indexes, and reference books and on library citizenship and literature.¹⁹ Her introduction discusses the theory of games and its application to those games used in library media instruction. The games, developed by Tassia and her library science students, are related to a particular skill and can be easily adapted for use with a subject area. Bell and Brown in *Gaming in the Media Center Made Easy* provide ninety-eight games for all types of students.²⁰ The games encompass all of the basic library media skills including the use of audiovisual software and hardware. These games, too, are adaptable to many curriculum situations.

The concern of library media specialists for library media program development and for actual instruction is reflected in the demands for workshops at national and state conferences. During the 1982 ALA Philadelphia Conference, AASL sponsored a two-day preconference on "Meaningful Library Skills, K-12: How Many? How Communicated?" The preconference emphasized the teaching and integration of library media skills with the whole school curriculum. AASL also provided several sessions on library media skills development at the 1982 meeting in Houston and 1980 Louisville conference. In Houston, library media specialists attended such sessions as "Assessing Mastery of Library Media Skills," "Information Online: High School Students and Databases," "Role of the Librarian in Basic Skills and Literacy Improvement Efforts," and "School Librarians as Educators."

Use of Resources

The development of a reference collection in the school library media center involves a thorough analysis of the curriculum and a thorough knowledge of the students and teachers. The collection needs to keep pace with the availability of new sources of information appropriate for the school and with curriculum revision. Evaluation of the reference collection should involve not only the library media specialist but also students and teachers. Evaluation should be continuous and systematic.

M. Carl Drott and Jacqueline C. Mancall conducted a study of materials and facilities used by metropolitan high school students enrolled in advanced placement courses. The findings are reported in *A Quantitative Inventory of Resource Development and Utilization for Metropolitan High School Students*.²¹ Drott and Mancall examined 1178 papers prepared by students to meet assignments requirements in English, history, social studies, debate, political science, economics, science, and health education. The combined bibliographies of the papers contained 8279 references. The study revealed that 62 percent of the references were to monographs; 19 percent to journals; 7 percent to encyclopedias; 4 percent to newspapers; 3 percent to government documents or pamphlets; 1 percent to nonprint materials; and 4 percent to miscellaneous resources. Drott and Mancall learned that the materials used were not especially current. This was particularly apparent with journals where 30 percent of the students used no articles from the last five years and 21 percent used none from the last ten years.²² The study raises questions for library media specialists and teachers regarding the impact of bibliographic instruction upon the actual use of resources by students. The study also revealed the necessity for library media specialists and teachers to make students conscious of the need to use the most current information.

Lucy Anne Wozny conducted a study of fifty-three honor students enrolled in a ninth-grade science class in an upper-middle-class suburban high school.²³ The study "Online Bibliographic Searching and Student Use of Information: An Innovative Teaching Approach" discovered that cooperative training efforts by the teacher and librarian affect the pattern of materials referenced by students. The students all had chosen energy-related topics, used a variety of materials, and made 46 percent of their term paper references to magazine articles. Unlike the Drott and Mancall study, which showed that science students used outdated materials, 80 percent of the students in the Wozny study used materials published during the past two years. Emphasis was placed on the use of current materials.

The students involved in this study received instruction in the use of print indexes and other reference tools. Online searching instruction was given to classes, to small groups and to individuals. Only 19 percent of the students used materials identified through online searching. One of the considerations that students encountered in their online search was the difficulty of securing government documents, conference proceedings, technical reports, and specialized journals. Popular magazines identified through an online search were also identified through standard print research tools.

School Library Media Centers

Both studies revealed that students use more than one type of library to secure information. Wozny discovered that a typical student searched for information in two or three libraries. The school library media center was used by 92 percent of the students; 87 percent used public libraries; 74 percent used home libraries. Drott and Mancall found that 14 percent of the students in their study used only one library.

Online bibliographic access has been available to senior high school students in the Montgomery County (Maryland) Public Schools since 1976.²⁴ Students in search of information have access to DIALOG and the New York Times Information Bank. After printed sources have been exhausted, requests for information are sent from the library media center to the district's Professional Library where the search is conducted. Once the resources have been identified, they may be borrowed from other libraries in the state through interlibrary loan.

School Library Media specialists are becoming increasingly aware of the potential of computer technology in meeting the information needs of students and teachers. The 1980s will bring instruction related to the use of databases just as the 1970s brought instruction in the use of audiovisual technology. Budget cutbacks at all levels will necessitate resource sharing and other forms of cooperation among libraries.

The Role of the School Library Media Program in Networking has identified the potential of schools in a national network.²⁵ Students and teachers need to have access to the latest information that only is available through networks. Networks and the accompanying computer technology will open vast quantities of sources to schools.

References

1. Fargo, Lucille F. "Training High School Students in the Use of the Library." In *Addresses and Proceedings, 1913*. vol. 51, Ann Arbor, Mich.: National Education Association, 1913, p. 760.
2. National Center for Education Statistics. *Statistics of Public School Library Media Centers, Fall 1974 (LIBGIS I)*. Washington, D.C.: HEW, NCES, 1977.
3. American Association of School Librarians. *Standards for School Library Programs*. Chicago: ALA, 1960, p. 18.
4. National Center for Education Statistics, *Statistics of Public School Library Media*.
5. American Association of School Librarians. *Media Programs: District and School* (Prepared by the AASL, ALA and Association for Educational Communications and Technology). Chicago: ALA, 1975, p. 4.
6. *Ibid.*, pp. 6-9.
7. *Ibid.*, p. 8.
8. *Ibid.*
9. *Ibid.*, p. 6.

JACK LUSKAY

10. Ibid., p. 10.
11. Ibid.
12. Ibid.
13. Ibid., pp. 478-534.
14. Fraser, Dorothy McClure, and Johns, Eunice. "Social Studies Skills: A Guide to Analysis and Grade Placement." In *Skill Development in Social Studies* (33d yearbook), edited by Helen McCracken Carpenter, pp. 310-27. Washington, D.C.: National Council for the Social Studies, 1963.
15. Ibid., pp. 311-12.
16. *Action and Interaction* is in two parts—elementary and secondary. The guides are available from Leon F. Novak, Director of Library/AV Services, Upper Merion Area School District, King of Prussia, Pa., 19406. The guides were copyrighted in 1977.
17. Information on the library media instructional program is available from Sue A. Walker, coordinator of the Department of Library/Media, School District of Lancaster, McCashey High School, 445 North Reservoir Street, Lancaster, Pa. 17602.
18. Walker, H. Thomas, and Montgomery, Paula Kay. *Teaching Media Skills: An Instructional Program for Elementary and Middle School Students*. Littleton, Colo.: Libraries Unlimited, 1977.
19. Tassia, Margaret R. *Games for Information Skills*. Fayetteville, Ark.: Hi Willow Research and Publishing, 1980.
20. Bell, Irene Wood, and Brown, Robert B. *Gaming in the Media Center Made Easy*. Littleton, Colo.: Libraries Unlimited, 1982.
21. Drott, M. Carl, and Mancall, Jacqueline C. *A Quantitative Inventory of Resource Development and Utilization for Metropolitan High School Students*. Philadelphia: Drexel University School of Library and Information Sciences, 1980.
22. _____ . "Magazines as Information Sources: Patterns of Student Use." *School Media Quarterly* 8(Summer 1980):241.
23. Wozny, Lucy Anne. "Online Bibliographic Searching and Student Use of Information: An Innovative Teaching Approach." *School Library Media Quarterly* 11(Fall 1982):35-42.
24. Information regarding online bibliographic services to high school students may be obtained from Karen Dowling, Curriculum Librarian, Montgomery County Public Schools, 850 Hungerford Road, Rockville, Md. 20850.
25. Task Force on the Role of the School Library Media Program in the National Program. *The Role of the School Library Media Program in Networking*. Washington, D.C.: USGPO, 1978.