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# Current Library Use Instruction

A.P. MARSHALL  
*Issue Editor*

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Introduction

A.P. MARSHALL

In the 1960s there was a resurgence of interest in library user education which ran concomitantly with a period of intense searching for values. The mood of the time required the stripping of facades from old and traditional practices in order to determine if the original truths, reasons, and assumptions supporting them were still valid. It was a time of intensive personal searching to make certain that everything was right and, if not, to determine how to make it so.

A sizable number of librarians during this period seemed to see their profession as ambivalent, claiming no sound discipline of its own, but clinging tenaciously to the more established fields of study. There was very strong, even emotional desire for clearer definitions of the library profession and better-defined objectives. To be librarians in what they perceived as the old tradition was not enough. They felt that there had to be more to the profession than was immediately apparent.

College enrollments mushroomed during the 1960s, and new laws and interpretations of laws were followed by avalanches of so-called nontraditional students to college campuses, seeking to equip themselves with the advantages that college education could offer. Educational theorists had a heyday as they resurrected philosophies and principles which might have some bearing on the new college student. Still others occupied themselves by structuring theories which could be applied to this evolving educational phenomenon.

A.P. Marshall is Professor of Library Services at Eastern Michigan University, Ypsilanti, and is currently Acting Director of the University Library.
Librarians, concerned with their roles as transmitters of important knowledge and concepts, started questioning their own abilities to meet the challenges brought by this "nontraditional student." Did they have sufficient understanding of these students to participate maximally in their learning processes? Could exposure to more ideas help librarians to be of greater assistance to the new students? What stance should librarians take regarding students who questioned the relevancy of some courses as preparation for life work?

The "inner incentives" which drive librarians to serve patrons are no different from those which inspire teachers. Librarians were as concerned about this new student as were the classroom teachers. These concerns come normally in three phases. First, there is the feeling of responsibility to the profession. If this is taken seriously, every effort will be made to help the patron toward his learning objectives. Second, there is a strong desire to assist in the growth and maturity of patrons as intellectuals and as citizens. Third, there is the fulfillment and satisfaction that come from successfully promoting and engaging in the learning process.

Emerging from this milieu of concerns came the somewhat dormant idea that librarians could do more to contribute to the teaching/learning process than play a waiting role. Courses of action had to be determined, and time had to be found for strategic planning. A general but unexpressed feeling developed that "the difference between good [librarianship] and poor [librarianship] is not so much a matter of being 'born' to it, but caring enough to learn how to do it better, to take some calculated risks, to engage in the life of dialogue which is, as Martin Buber long ago said, the life of education."2

The vibrancy of librarian concerns was illustrated in the response to the first call for a national conference on library orientation at Eastern Michigan University (Ypsilanti) in 1971. Interest had been building at state and national library conferences, and information was beginning to appear in library journals. A few grants had been received and news of them was getting around. In subsequent years, the conference at Ypsilanti was to become a kind of crossroads for those seeking ideas for developing tailored programs for their own campuses.

Recollections of many programs, hundreds of concerned librarians, and dozens of organizations with funds to dispense came to mind as preparation for this issue began. An effort was made to select from a large number of informed and qualified persons those who would be willing to contribute in this unique way to an "update" on the general subject of library user instruction (or bibliographic instruction). Mark
Tucker was asked to develop the historical perspective of the subject, and he has succeeded quite well. Crediting Ralph Waldo Emerson with the basic concept, Tucker rather expertly intertwines the development of educational thought and philosophy with an increasing consciousness of the need for users to understand libraries. He reminds his readers of the early twentieth-century experiments and their importance in the process. He reviews the conflicts which emerged as stronger assertions were made in favor of library user instruction, and discusses quite candidly the continuing lack of "sound philosophical and theoretical foundations" to support the movement. Predicting benefits from the never-ending search, he forecasts an increasing importance for library user instruction.

Carolyn Kirkendall provides an overview from the advantage of the Library Orientation/Information Exchange (LOEX) office at Eastern Michigan University. A rationale for a clearinghouse of library user instructional materials is established as she offers her evaluation of the project.

Thomas G. Kirk, James R. Kennedy, Jr., and Nancy P. Van Zant begin their paper, "Structuring Services and Facilities for Library Instruction," with an assumption of full and unquestioned support by the academic administration. They then proceed to outline what they see as the three elements of a successful program. Dividing their paper between the philosophic and practical aspects, and the physical aspects, their discussion might be considered as a "how-to-do-it" part of this issue. They raise several pertinent questions which are designed to incite further useful research into the values to be derived from such a program.

With competency-based education capturing so much attention these days, Carla J. Stoffle and Judith M. Pryor were asked to examine this teaching/learning technique as it is being applied to library user education. The authors discuss briefly the meaning of competency-based education before applying the concept to library user education. Their article describes programs at Alverno College, Doane College, Sangamon State University, the University of Louisville, Findlay College, and the University of Wisconsin-Parkside, providing a variety of models. Stoffle and Pryor recognize the limitations of competency-based programs and their unsuitability at some institutions, but point out that in some cases "it can be a very effective approach." In other institutions, it may be "too time-consuming and too demanding in terms of the need for faculty cooperation and acceptance, and of the skills required of the instruction librarian."
A.P. MARSHALL

Sharon Rogers examines the theory and practice involved with the subject of "Research Strategies: Bibliographic Instruction for Undergraduates." Her approach is scholarly and analytical. Recognizing disagreements among professionals on definition of terms, she expertly divides the subject in terms of levels of students to be instructed, the content of the instructional materials, the methods used to teach, and who should teach—divisions which provide an opportunity to examine each facet carefully. She feels that there must be a translation of knowledge from the academic library experience into the conceptual frameworks and habits of users.

Mignon Adams writes about the "Individualized Approach to Learning Library Skills." Various methods of helping individual users are discussed—the library tour, handbooks, guides, programmed instruction, and computer-assisted instruction. Every library which has tried to do something in this field will find here a technique with which it can identify.

Hannelore Rader addresses "Reference Services as a Teaching Function" in a related article. The absence of an acceptable theory of reference service has not diminished librarian interest in library user instruction. Tracing the origin of reference service to the late nineteenth century, Rader cites the efforts of Samuel S. Green, W.W. Bishop, J.I. Wyer, and Samuel Rothstein, all of whom brought dignity and recognition to reference work.

The "Training and Education of Library Instruction Librarians" is discussed by Sharon Anne Hogan. She explains the thrust of "bibliographic instruction" as it emanates from continuing education. The contributions of ALA-related programs to the development of the bibliographic instruction concept are described briefly. Even as she reviews the resistance of library schools to adding courses which would train prospective teachers for bibliographical instruction, she is hopeful that recognition of the need for formal training for the teaching librarian or the teacher of bibliography will strengthen the role of the library in the institutional setting.

Beverly P. Lynch and Karen S. Seibert write about the librarian's involvement in the total educational process. They begin by comparing pre-1930, classically oriented teaching with current methods which rely heavily on library resources. Reviewing some of the institutional programs in which the library has been made the actual center of instruction and librarians have been assigned important functions in the teaching/learning process, the authors recognize that true involvement in the total educational planning process is still unrealized on a vast
Introduction

scale. There are a few programs of informal involvement which are easier to achieve and seem to be effective, however. In the final analysis, the classroom instructor prefers to remain independent of librarians when structuring academic programs.

No coverage of library user instruction could overlook the impact of the computer. Gail Herndon Lawrence believes that the impact of on-line bibliographic searches will become even greater in the future. Writing on “The Computer as an Instructional Device,” she urges her colleagues to be creative in their use of machines but, at the same time, advises caution. The possibility of “on-line data base searching” obscuring “the true nature of library research” is always there, she argues. She believes that “the challenge of automation is a total redefinition of the role and function of library user education.”

Richard Werking brings a scholarly approach to evaluation to this issue and shows that measurement of teaching effectiveness is not easy. His article reviews various techniques used on different campuses, showing the strengths and weaknesses of each type of measurement. He also reviews evaluation of library user instruction programs in a few European institutions. None of these, however, is completely satisfactory, and it may be some time before testing procedures catch up with user instruction programs.

The fortunes of bibliographic instruction and library user education are so inextricably tied to institutional health that announcements which border on educational doom cause the same concerns among librarians as they do among teaching faculty. Such was the case when the January 28, 1980, issue of the Chronicle of Higher Education carried a report of the Carnegie Council on Policy Studies in Higher Education. By carefully analyzing demographic factors, changing population mix, labor market changes, institutional types, state populations; and fiscal trends, the council, under the chairmanship of Clark Kerr, predicts enrollment declines in the next two decades which will have a devastating effect on higher education. The council also predicted that there will be a decrease in quality and integrity in higher education, and that survival will replace excellence as a major objective.

How reasonable is it to assume that despite possible decreases in budgets, college administrators will have a better understanding of the relationships between library resources and campus excellence so that quality will be maintained? Of course, those who have been involved in library user education over the past few years hope that their impact has been great enough to assure continuity of programs. Thousands of students have had the benefits of user instruction programs, and should
now be among that vast educated public and should have learned to rely on libraries. Their sophisticated knowledge should be sufficient to evoke loud outcries in protest of any reduction in library support.

Unfortunately, no paper within this group addresses the future in the same way that the Carnegie Council does, but the document is important for all who must consider the future of education in our time. If some new thought has been generated by one of the authors here, and if one new convert to bibliographical instruction or library user education is attracted by this issue, then efforts made here have not been wasted.

I want to thank each of the contributors, who found time among hectic schedules to develop their thoughts and ideas on paper in order to share them with colleagues. Whatever future there is for the library profession in general and library user education in particular will be dependent on them and others like them. Among the people who have played important roles in making this publication possible are the following: Carolyn Kirkendall, director of the LOEX office at Eastern Michigan University; Hannelore Rader, coordinator of the Education and Psychology Division of the Eastern Michigan University Library, and one of the leaders and pioneers of library user education; Ruthe L. Marshall, a constant counselor and a librarian's librarian; Ruth Doland, secretary to the director, Eastern Michigan University Library; and the editorial staff of *Library Trends*.

**References**

2. Ibid.
User Education in Academic Libraries: 
A Century in Retrospect

JOHN MARK TUCKER

East Asian scholar John King Fairbank has written that "at any given time the 'truth' about China is in our heads, a notoriously unsafe repository for so valuable a commodity."¹ The same observation could easily apply to instruction in library use. Professor Fairbank’s approach, with its appropriate respect for the subject and a corresponding willingness to revise our own opinions, could enhance the value of our review of the topic. As today’s truth about library instruction is evident in the assumptions current practitioners use and the views they espouse, so the truth of yesterday may be seen in the ideas, concerns and activities of our predecessors. Historians and their readers may find yesterday’s truth to be of interest for its own sake, but librarians, traditionally oriented to practical matters, tend to regard history largely for its utilitarian value.

This rationale for historical study is frequently and aptly set forth. Pierce Butler applied it to librarianship. “The librarian’s practice,” he observed, “will be determined in part by his historical understanding.... Unless the librarian has a clear historical consciousness...he is quite certain at times to serve his community badly.”² The purpose of this essay is to help establish a historical consciousness, a more detailed retrospective on the task of user education in academic libraries. Some of the ideas, the persisting issues, and the nature and extent of instructional activity should become apparent in the course of these comments.

John Mark Tucker is Reference Librarian and Assistant Professor of Library Science, Purdue University, West Lafayette, Indiana.
In part, current ideas about library instruction grew from Ralph Waldo Emerson’s comment urging colleges to appoint a “professor of books” and stating that no faculty position was so desperately needed. McMullen traced the “professor of books” reference back to Emerson’s lectures in the 1840s when the older classical colleges were in a state of inertia. The philosopher had envisioned instruction about the major ideas in a generally agreed-upon group of important works, a kind of “great books” program for students who would be liberally educated. Inspired by the dictum, librarians referred to it repeatedly in the last three decades of the nineteenth century as a rationale for their instruction in library use skills and in the contents of reference works.

After the Civil War, Emerson saw in collegiate education “a cleavage...occurring in the hitherto firm granite of the past,” and he claimed that a “new era” had nearly arrived. Major trends in the new era became apparent in the 1870s and 1880s and provided the context for library instruction. The Morrill Federal Land Grant Act of 1862 was the legal basis and political impetus for the establishment of public colleges offering technical and practical programs for farmers and laborers. These institutions, bringing higher education to many families for the first time, offered a new channel for upward mobility. Rudolph described their leaders and benefactors as responding to:

- the unleashing of new impulses to social and economic mobility,
- the emergence of a more democratic psychology which stressed individual differences and needs,
- and to a more democratic philosophy which recognized the right to learning and character-training of women, farmers, mechanics, and the great, aspiring middle class.

They recognized that a new society needed new agencies of instruction, cohesion, and control.

A spirit of scientific inquiry began increasingly to characterize the older colleges as well as the land-grant institutions. Americans adopted the German practice of educating men and women for the pursuit of knowledge, which became “as sacred a responsibility of any institution of higher learning and of any scholar connected with it as teaching itself.” The idea of the university as a community of scholars engaged in the equivalent activities of teaching and research found dramatic expression in the establishment in 1876 of Johns Hopkins University, the first American institution founded solely for graduate education.

Newer approaches to knowledge ushered in newer approaches to instruction. Rigorous methods of inquiry came to characterize emerg-
User Education in Academic Libraries

ing disciplines and their older counterparts. Students joined professors in examining and comparing sources in the setting of graduate and undergraduate seminars. Rothstein said that the "distinctive feature of the seminar was the first-hand investigation of the original materials by the students" under close professorial supervision; "preferably this process would take place in the library itself, where the group could discuss the students' work within easy reach of the materials cited."8

John Cole has termed the last quarter of the nineteenth century in American librarianship as "the age of use."9 Not only were universities and colleges undergoing major changes, so also was American librarianship in general. The first annual conference of the American Library Association, the first issue of American Library Journal, and the U.S. Bureau of Education's massive report, Public Libraries in the United States of America, all appeared in 1876, a year widely recognized by library historians as of great significance. Also in 1876 the concept of the librarian as educator, frequently intoned in recent decades, began to take shape. Otis Hall Robinson of the University of Rochester referred to librarians as educators rather than keepers of books, and Melvil Dewey wrote that the time had arrived "when the library is a school, and the librarian is in the highest sense a teacher, and the visitor is a reader among the books as a workman among his tools."10

Like their professional descendants eighty to ninety years later, librarians of the early period devised programs of user education with the materials and opportunities at hand. Their purpose was to enhance and strengthen the liberal arts and bibliographical research aspects of undergraduate education. The course elective system, quickly adopted in land-grant colleges, coincided with the need to establish credit courses. Those who organized courses and presented bibliographical lectures included Otis Robinson; Raymond C. Davis, University of Michigan; Azariah Smith Root, Oberlin College; George T. Little, Bowdoin College; C.E. Lowrey, University of Colorado; and George W. Harris and Willard Austen, Cornell University. By 1912 Joseph Schneider had identified Raymond C. Davis as being more influential than anyone in furthering the bibliographical instruction movement.11

The liberalizing attitudes promoted by college librarians were evident in the essays and reports of Robinson and Harvard's Justin Winsor. Their 1880 circular, "College Libraries as Aids to Instruction," used lessons learned from the remarkable situation at Rochester, where as many as 20 to 30 percent of the students, one-half of the faculty, and occasionally even the university president could be found on Saturday mornings engaged in their own investigations under the guidance of the university librarian. Rochester had only about 160 students and 8 pro-
fessors, but Robinson's influence there was quite strong and merits further historical attention.12

Public services in academic libraries began to achieve stability in the first decades after the turn of the century. Universities and colleges created full-time positions for librarians to work with patrons in finding information and borrowing books. The acceptance of instruction in library use developed as visibly, if not as permanently, as reference work itself. Despite modest evidence from previous surveys,13 it was not until after 1910 that the full extent of instructional activity became apparent.

The U.S. Bureau of Education led the way in stimulating colleges and universities to think about and experiment with library instruction. The bureau disseminated survey results in its annual reports of 1912 and 1913, and in a 1914 bulletin edited by Henry Evans. The 1912 report described an ALA survey to which 149 of 200 institutions responded: 57 percent offered required or elective courses; of these, 86 percent of the respondents had classes designed to help students develop skills in using reference works and in exploiting library resources in general. The 1913 report included results of Willard Austen's survey for the New York State Library Association: 49 percent of 165 responding institutions were engaged in some aspect of organized library instruction.14 As a member of the bureau's Editorial Division, Henry Evans compiled and edited "Library Instruction in Universities, Colleges, and Normal Schools," one of the most extensive surveys (in terms of sample size) ever conducted on this topic. Evans found that nearly 20.5 percent of 446 academic institutions and 56.0 percent of 166 normal schools offered instruction in library use. The commissioner's following annual report appended eight additional institutions to the Evans survey.15

However modest its development, bibliographical instruction in 1914 had emerged during the academic revolution in 1870-1910. The revolution fostered competing educational forces that Veysey summarized as the ideals of vocational training, research and liberal education. By 1910 these movements had staked out their intellectual and bureaucratic territories, creating a higher education system of considerable uniformity. Crystallizing during this 40-year period were features such as the unit system for credit, elective courses, departmental and administrative organization and chains of command, and the recitation, lecture and seminar modes of instruction.16
Library instruction (educating the library user) and library education (training for the prospective librarian) developed simultaneously. Credit courses and course-related lectures were sometimes designed in combination to meet the separate learning objectives of each enterprise. The mixture of learning objectives and professional goals was particularly apparent in the deliberations of three meetings of academic librarians and library educators. The first of these took place at the ALA conference at Philadelphia in 1897, about ten years after Dewey initiated training for librarianship at Columbia College and twenty years after the concept of the librarian as educator was seriously put forth. Other meetings were in 1901 at the ALA conference in Waukesha, Illinois, and in 1908 at the ALA conference at Lake Minnetonka, Minnesota. Transcripts of these discussions show a consistent attempt to differentiate the pedagogies of user education and professional education. Azariah Root typified librarians who functioned in dual instructional roles. At Oberlin College he taught library use to undergraduates in a liberal arts curriculum, while at Western Reserve University he prepared students for professional work in libraries.

In American higher education the interregnum between world wars was a time of drift and disappointment. Administrators were discouraged on the one hand because philanthropic grants had not met earlier expectations, and on the other, because students seemed obsessed with fraternities and athletic events. The general mood bespoke a lack of confidence and a concern over economic scarcity. Veysey described educators as facing a social pattern that was hostile in spirit to the entire curriculum.

Librarians interested in user education could not help but share the psychological unease felt by their parent institutions. Programs had fallen short of expectations, and librarians found that incoming students were ill-equipped for any collegiate work demanding fundamental library skills. Survey results from the 1920s and 1930s illustrate the magnitude of the problem, not unique to its own period, but nevertheless disquieting. For example, only 47 percent of incoming freshmen at the University of Maine reported having used either a card catalog, a periodical index, or the Dewey classification scheme. At Indiana University only 50 percent of the freshmen had used a card catalog and only 26 percent had used the Readers' Guide to Periodical Literature. At Stanford University and the University of California, 63 percent of 354
graduate students had never in their college careers been given personal library instruction by a professor or a librarian.

As professorial discontent had emerged in the face of rising enrollments and expanding universities, so library discontent, however deep or shallow it may have been, arose in the midst of excellent growth in libraries and in book collections. Between 1910 and 1940 the number of institutions of higher education increased from 951 to 1708. Between 1912 and 1937 the combined collections of fourteen leading research libraries increased from about 5 million volumes to about 14 million volumes, a gain of nearly 285 percent. Such rates of growth were typical throughout much of academia.

Several new library instruction programs emerged in the 1920s in order to serve the practical and technical curricula in land-grant institutions. In 1923 Lewis cited a survey showing that thirty-six of fifty agricultural and station libraries provided bibliographical instruction. Two years later, Dunlap reported that about one-third of the forty-eight land-grant colleges with schools of agriculture were offering library instruction in the form of credit courses. The University of Illinois offered a two-course sequence, while courses at the Oregon Agricultural College and the North Dakota Agricultural College were required for graduation.

Library instruction for professional education was gaining acceptance in teachers colleges and normal schools. Originating in the Library Department of the National Education Association (NEA), standards of library service called for teacher education schools to require a library course of all students in teacher preparation curricula. The course would be taught by a librarian and would consist of a minimum of twelve lectures on how to use the library. The standards were adopted by the NEA and later approved by ALA and the National Council of Teachers of English.

The 1920s might accurately be called the decade of surveys. Not only were librarians inquiring as to student knowledge of reference sources, they were surveying other libraries to enlarge their picture of instructional activity. Ada English of the New Jersey College for Women reported on ninety-two institutions, finding that 46 percent of them provided library instruction. C.P. Baber at Kansas State found that of twenty-three respondents to a survey, nine offered formal courses and nine offered other types of instruction. Describing programs in thirty-three colleges and universities, ALA found in its nationwide survey of libraries that “instruction to some extent in the use of the catalog and of the more common books of reference [was] given to
freshmen by approximately half of the libraries reporting of more than 20,000 volumes."29

For fifty years the profession debated the nature and purpose of library instruction. This ongoing dialogue coincided with the birth and development of programs in a number of colleges, and culminated in more ambitious experimentation. In his classic on reference work, James Wyer reflected the traditional view that "training in self-help is part of the warp and woof of any tenable theory of reference work."30 Such training was intended to familiarize the student with library organization and practices that would be of value to any educated person, thus enabling him to conduct searches with greater speed, success and understanding. However, library instruction was seen by others to have more comprehensive possibilities than were suggested by reference work alone, namely, a theoretical capacity to affect methods of instruction throughout the curriculum.

Private philanthropy was an excellent stimulus to rethinking the library's position in small colleges. In 1929 the Carnegie Corporation appointed an advisory committee which, working with Charles B. Shaw, compiled a bibliography of about 14,000 books suitable for undergraduates. The Shaw list became the basis for Carnegie grants of $5000 to $25,000 to eighty-one colleges for purposes of strengthening book collections. The value of these gifts, as Wilhelm Munthe suggested, was not as much in the collection development they supported as it was in supplying a "tonic to college libraries."31 Administrators were forced to give serious consideration to an important resource they had habitually neglected. Munthe exclaimed that in the 1930s "every college president and trustee" who took seriously the library's educational mission came to realize that the library had to achieve "a more central and active position" in collegiate education.32

Librarians who were rethinking the library's educational functions were surely encouraged by philosophical currents in higher education. Followers of John Dewey emphasized "life needs" and urged curricular development in social and family adjustment and in civic responsibility. Alexander Meiklejohn and Robert Hutchins maintained and enhanced various notions of the liberal arts. Other educators created honors programs that grew during the interregnum and expanded even more rapidly after World War II.33 Veysey wrote that at the end of the 1930s "there seemed far more likelihood of widespread curricular rethinking than at any time during the preceding thirty years."34

Attempts to strengthen the teaching function of libraries brought about the experiment at Stephens College spearheaded by B. Lamar
Johnson, who was both college librarian and dean of instruction. Johnson led faculty members in integrating library use with courses throughout the curriculum. He consulted with all professors in their preparation of the portion of their class assignments dealing with library organization and bibliographical tools. The 1930s also witnessed the birth of the "library-college" movement (discussed more fully below), which found some of its earliest expressions in the writings of Silas Evans and Louis Shores.

More pertinent to its own era was Harvie Branscomb's *Teaching With Books*. Supported by the Carnegie Corporation and the Association of American Colleges, Branscomb studied the college library from the standpoint of "educational effectiveness rather than its administrative efficiency." Examining book circulation practices in more than sixty colleges, he merged various elements of curricular and library thought into the primary assumption undergirding his study, i.e., that the problems of library use were a common responsibility of the entire academic community. Branscomb sought a wide audience, addressing himself beyond professors and librarians to presidents and other administrators as well. Speaking specifically of library instruction, he defined the approaches that both summarized previous activity and brought us into current practice, namely, the testing of student knowledge, credit courses taught by librarians, and course-related instruction planned in consultation with faculty members.

The economy of higher education and academic libraries after World War II depended not only on growing numbers of returning veterans, but also on the percentage increase in college-age enrollments—from 14 percent of the population in 1940 to 40 percent in 1964, according to government estimates. During this period library instruction advanced in technical and practical ways. Audiovisual materials and equipment became a more conspicuous element of collections and services, bringing with them the problems of staff maintenance and patron use. Honors programs for undergraduates and required research courses for graduate students gained broader support, increasing the demand on the research collections and teaching functions of libraries. Givens complained that despite "project after project" involving testing, orientation programs, and bibliographical courses in the literature of various disciplines, library instruction "gave little indication of being developed on the cumulative knowledge and evaluation of earlier presentations." She suggested that social upheavals resulting in turn from depression, war, exploding enrollments, and economic growth were sources of isolation within librarianship.
SOCIAL STIMULUS AND ECONOMIC PROSPERITY

Two important events occurred in the 1950s signaling a new relationship between education and the federal government. The first of these was the 1954 Supreme Court decision of Brown v. Board of Education of Topeka outlawing state-imposed racial discrimination, thereby guaranteeing entry for blacks and other minorities into all levels of the nation's educational system. Thus, there was an influx of nontraditional students, as A.P. Marshall has referred to them, suffering from inferior educations and swelling the rising tide of college enrollments in the 1960s. They were especially visible in California and New York. In 1960 California guaranteed access to higher education for all of its high school graduates, and in 1970 the City University of New York instituted an open admissions policy radically altering its educational approach from "elitism to egalitarianism." Nontraditional students owe their presence in colleges and universities to social and economic factors which have created a new awareness of higher education as a tool for upward mobility and equality of opportunity, and which more than doubled the nation's student enrollments between 1959 and 1969.

To cope with the educational deficiencies of the new students, academic institutions assumed many tasks usually performed by high schools. They established remedial curricula, taught reading and study skills, and offered orientation programs to various aspects of campus life. Engaged in compensatory programs, the newer students presented a strong challenge to academic libraries, a challenge that was sometimes answered with damaging ambivalence. For example, in order to teach students how to use fundamental library tools, study skills departments in three eastern colleges were forced to hire librarians rather than work with those already employed in their institutions. According to Breivik, academic librarians lack the necessary aggressiveness to help institutions redefine educational goals and address themselves to the needs of some of their incoming students. Breivik's report on her controlled experiment at Brooklyn College demonstrates some of the library's capacities in teaching the educationally disadvantaged. If library resources are to be more widely utilized, students must experience learning that convinces them that the library is a necessary and meaningful part of that learning.

The second important event occurring in the 1950s stimulated federal grants to education at an unprecedented rate. With their government subsidies, soldiers returning from World War II had supported the rising curve in student enrollments and revenues. However, it was not
until October 4, 1957, when the Soviet satellite Sputnik was launched into orbit, that the nation raised education to a much higher priority. Congress opened a new chapter in federal funding of higher education, approving the National Defense Education Act of 1958 and its legislative descendant, the Higher Education Act of 1965, the first act to provide a comprehensive aid program both to individual students and to institutions.

Libraries, teaching departments, and research laboratories enjoyed phenomenal growth in the 1960s, a decade of prosperity and federal generosity. Between 1959 and 1970 the number of college and university libraries grew from 1951 to 2535; their total book collections rose from 176 million to 371 million volumes, and their expenditures leaped from $137 million to $737 million annually. This growth accompanied an insurgent professionalism and a heightened sense of social and educational responsibility toward the library user. The sheer bulk of articles published about library instruction testifies to widespread interest. Citations appearing in Library Literature illustrate the pattern: 247 entries from 1949 to 1960, 418 from 1961 to 1971, and 421 from 1972 to 1979.

Economic and social factors continued to influence academic library instruction, and private philanthropy directly affected it as never before. Supported largely by the Ford Foundation, the Council on Library Resources (CLR) made grants to academic libraries for programs such as networking, preservation, collection development, and automation. However, in 1969 the council broadened its approach by initiating the College Library Program, which sought the improvement of undergraduate education through the support of experimental library programs. CLR described the thinking behind its new effort as follows:

The academic library's function goes well beyond mere support for the teaching program. It has the potential to sharpen a student's intellectual curiosities to the point where they will demand satisfaction all his life. It must use that potential and apply its resources to make itself a full partner in the education of the student. As in any partnership, active participation among the principals is a sine qua non.

In conjunction with the National Endowment for the Humanities (NEH), CLR sought to undergird the partnership essential to an effective and, indeed, “central” role for the library in undergraduate education. The principals implicit in the council's “partnership” were, of course, faculty, administrators, librarians, and students.
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Among the similarities of CLR-NEH programs was the use of students as peer instructors or bibliographic assistants. Bodner has noted student roles in program design at Brown University, Hampshire College, Wabash College, and Washington and Lee University. Marshall described student participation at Dillard University, Hampden-Sydney College, and Jackson State College in Mississippi.48

The CLR Library Service Enhancement Program (LSEP) was similar in purpose but different in structure. Earlier recipients were awarded five-year grants and they exercised considerable latitude in program design. Receiving a more precise mandate from the council, LSEP recipients designated a project coordinator who for one year would devote his entire time to planning, implementation and evaluation. Especially emphasized was the integration of student input into these programs.

While student consultation is valued and respected, it cannot be depended upon to sustain a comprehensive effort from year to year. An active and satisfying program necessitates cooperative planning with teaching faculty. During the past century this truism has been pronounced as regularly as any other in the field of library instruction. Patricia Knapp's 1958 statement is typical: "If we wish the library to function more effectively in the college,...we must direct our efforts toward the curriculum, working through the faculty."49

CONCEPTUAL AMBIGUITIES

The past problems and future prospects of library instruction have their origins in reference work. The profession's inability to commit itself fully to user education grew out of conflicting ideas about the scope and purpose of reference services. William Katz summarized the ambiguities in the issue of "instruction" versus "information": the librarian faces the contradictory impulses of giving service on one hand, and on the other hand of usurping his role in that service by teaching the patron to use the library independently. The question for the reference librarian is: "Should I give the user answers to his questions or should I educate the user to find his own answers?"50 Three dominant opinions are apparent from the literature:

Instructional. The purpose of the reference librarian is to teach the user to help himself.
Informational. The patron does not want instruction but information, and it is the responsibility of the reference librarian to retrieve it. Situational. As personnel and materials become increasingly expensive, the reference librarian cannot and should not provide complete service but should exercise his professional judgment in providing information to some and instruction to others. What he does in a given situation depends on his particular library environment.

In 1930 James Wyer referred to these views as "conservative," "liberal," and "moderate." More recently, Rothstein has called them "minimum," "maximum," and "middling." However the views are classified, their import for library instruction cannot be ignored. Some practitioners see library instruction only as a conservative response to patrons' needs or as a necessary compromise due to insufficient funding for personnel; others use it as a rationale for faculty status since it involves teaching. In brief, librarians do not fully believe in library instruction, and the resulting posture of internal professional ambivalence limits our power to convince others that we are, in fact, educators.

Library instruction is seriously troubled by the absence of sound philosophical and theoretical foundations upon which to base its programs. Part of the deficiency derives from the fact that the larger field of librarianship has yet to achieve a "theory of high informative value." Stieg noted, however, a commonality of purpose among academic libraries in their support of the research, service and teaching functions of their parent institutions. He also observed elements of common practice: a concern for appropriate collections of recorded information, arrangement and housing of materials for effective use, and assistance in the use of materials. Still, the lack of solid theoretical and philosophical underpinnings has fostered confusion about the library's relationship to the curriculum and its role in the academic community. In his history of libraries in 1876, Holley found this lack of direction to be a natural corollary to the struggle of parent institutions to define their own missions and goals. Echoes of Holley's findings, as they apply to library instruction, continue to be heard. Katz has noted the lack of any meaningful philosophy of user instruction, as have Lindgren and Lockwood, who urge librarians to look beyond their own field of study in order to develop a conceptual framework that is more than merely rudimentary.

The strongest source of a coherent philosophical argument that could lend conceptual support to library instruction is in the library-college movement. Breivik has viewed it as the "only clear-cut philosophical statement of service with accompanying objectives of how
academic libraries can support the educational trends of this century," identified, among others, as independent study and research, and student-centered interdisciplinary learning. The library-college concept involves moving the teaching/learning situation out of the classroom and into the library, where the student conducts independent studies under the direction of bibliographically skilled, subject-oriented faculty members. As envisioned by Louis Shores in 1935, the library-college presupposed the abolition of regular class attendance in favor of library learning experiences, the inclusion of all physical facilities in a library complex, peer instruction of beginning undergraduates by upperclassmen, integration of library and faculty personnel into a single teaching staff, and a liberal arts curriculum emphasizing problemsolving techniques. The library-college concept is respected for its comprehensive approach to higher education, its emphasis on independent study, and its view of the totality of learning materials as the "generic book" to which all students should be introduced.

Generally speaking, however, library-college thinking has had little impact on academic libraries and even less on higher education as a whole. The Swarthmore College Special Committee on Library Policy found the realignment of library and faculty personnel necessitated by the concept to be unnatural and idealistic, and the committee expressed reservations about the difficulties encountered in library-college experiments. Breivik complained that library-college adherents too zealously promote their own approach, thereby alienating faculty and librarians alike. In 1979 a reviewer for the Journal of Academic Librarianship referred to library-college proponents as simply "out of the mainstream" on the subject of library instruction.

PERSPECTIVE ON THE PAST TWO DECADES

The "mainstream" of recent years, emerging in the 1960s and enjoying especially strong growth in the 1970s, sprang up as a grassroots effort at numerous institutions throughout the country. Librarians who saw the need for user education assembled programs with whatever resources they had at hand; in the early and mid-1970s their projects, as fundamental as classroom lectures or as complex as computer-assisted instruction, were frequently supported by CLR-NEH grants. The movement is readily associated with institutions that conduct systematic programs from year to year. At the risk of offending some by naming only a few, the following institutions have provided
leadership in the past two decades: Southern Illinois University at Edwardsville, University of Wisconsin-Parkside, University of Colorado, Brigham Young University, UCLA, MIT, Eastern Michigan University, and Earlham College. These and a host of others drew their inspiration and many of their ideas from Knapp's experimentation and research, first at Knox College and later at Monteith College, Wayne State University. Breivik observed that the library instruction movement grew from the bottom up (beginning with on-the-job techniques), that the library-college movement had grown from the top down (theory first, then application), and that the two groups, given their similarity of purpose, have much to offer each other.

Instruction librarians still seek to establish solid theoretical and philosophical bases. Such foundations could ultimately be discovered, if not in the library-college ideal, then in the identification of library instruction with conceptual models that have already achieved broad support in the academic community. The kind of thinking suggested by Lindgren's proposal (that we identify with the teaching of basic composition), by Lindsey's idea (that we adopt the role model of educator), or by Nigel Ford's model of "library learning" deserves further refinement and inquiry.

Despite its philosophical and theoretical shortcomings, library instruction has grown rapidly in a short period. The practice of mentioning instructional abilities in library job descriptions is basically a product of the 1970s, though it should be noted that time for instruction is typically squeezed out of a heavily committed reference staff. Early random and ad hoc attempts to prepare librarians to teach more effectively have become institutionalized. Conferences and workshops continue to appear and are annual events at Eastern Michigan University and the College of Charleston. ALA committees address themselves to the issues of library instruction; enough support has emerged to institute the Library Instruction Round Table. A clearinghouse of instructional materials was opened at Eastern Michigan University, the first of several such collections.

If all of this activity seems at times to be characterized more by exuberance than by reasoned direction, we should not be troubled. Marshall has predicted that by the end of this century librarians will have earned their place as educators. Of the history of reference work, Rothstein has written:

Traditionally, and by the nature of the beast, the librarian's role has everywhere been that of custodian, collector, and cataloger. If in the United States and a few other parts of the world he has also under-
User Education in Academic Libraries

taken to furnish personal assistance on an organized basis, it didn't just happen. We have reference service because it was once a "cause"—a cause to be propagandaized for, an idea to be formulated, developed and brought to fruition.165

As an essential feature of public services in academic libraries and as an outgrowth of reference work, library instruction is developing in similar fashion. Standing somewhere between infancy and full maturity, it has yet to come to fruition, but is well beyond the stage of being just a cause.

References


User Education in Academic Libraries

32. Ibid., p. 98.
34. Ibid., p. 10.
38. Ibid., pp. 204-09.
46. Entries tallied were located under the terms "library instruction," "instruction in library use," "programmed learning," and "bibliography-teaching." Books, theses, and dissertations were included, as were manuals, handbooks, and nonprint materials for all types of libraries. Entries exclusively for elementary or secondary school libraries or public libraries were not counted, nor were foreign language titles. Handbooks and manuals prepared for individual libraries appeared frequently in the 1960s; see *Library Literature, 1949 to the present.*
the virtual impossibility of classifying users or evaluating book collections by quantitative methods.

53. Ibid., p. 358.
54. Holley, op. cit., p. 43.
64. Marshall, op. cit., p. 61.

Additional References

User Education in Academic Libraries


Library Use Education: Current Practices and Trends

CAROLYN A. KIRKENDALL

During the past decade, interest in teaching patrons about the facilities, services, use, and collections of academic libraries has reblossomed and flourished. Commitment to the importance of and necessity for instruction in library use and in research strategy became widespread and accepted. And, as the ranks of library instruction advocates grew, so also did the need for centralizing data and collecting materials. Practitioners could not individually keep up with the burgeoning activity, and were concerned about duplication of effort and material.

The idea for establishing a central clearinghouse agency to collect and loan both sample materials and the data from program methods was conceived in 1971, the result of a spontaneous, grassroots movement paralleling the growth of library instruction itself. In 1972 Project LOEX (Library Orientation/Instruction Exchange) became a working reality. After receiving essential financial support from the Council on Library Resources during the growing years of clearinghouse activity, the national LOEX office is now a totally self-supporting agency, and continues to function as a central exchange for library instruction programs in this country. As the number of library instruction programs in U.S. colleges and universities continues to grow, so does the clearinghouse collection of materials and its data base of facts and figures.

Carolyn A. Kirkendall is Director of the national LOEX academic library instruction clearinghouse, Center of Educational Resources, Eastern Michigan University, Ypsilanti.
To date, 830 libraries have filled out survey questionnaires and have deposited these descriptions with the LOEX office. It is these figures which are used to describe current trends and practices in the field today. There are also an additional 800-plus academic libraries with some sort of instruction activity which have not deposited completed questionnaires with the LOEX office, but of which we have some knowledge. Therefore, the statistics which follow are not totally representative from a national viewpoint. They are, however, indicative of those libraries which are probably the most interested and the most involved in the user education field, and thus reflect a relatively reliable picture of the national scene. Table 1 illustrates the variety of instructional approaches, methods, materials, and projects used in a wide range of library instruction programs today, in comparison to a similar survey conducted more than six years ago.¹

These statistics provide a veritable gold mine of information for the researcher of library instruction trends, as preferences for particular instructional methods swell and wane as often as their effectiveness varies. Since each program is tailored to the needs of the individual institution, however, generalizations from these figures are not as easy or as reliable as it may first appear.

The fact that so many institutions willingly continue to share the user education materials which they have produced (only slightly more than 1 percent of the LOEX contacts prefer not to share their samples), and also to share the details of the development of these materials, is remarkable, considering copyright laws, publishing opportunities, and creative egos. By definition, the LOEX clearinghouse is a reciprocal exchange, the success of which is due in main to the cooperative attitudes of its members. It is refreshing to receive the level of cooperation which the office has consistently enjoyed—the reflection of a willingness which probably stems from the grassroots beginning of the movement, when practitioners turned to each other for support and encouragement.

In its role as a central collection agency, the LOEX clearinghouse holds a unique position. The clearinghouse does not itself practice the intricacies of library instruction; it collects the products, results, and opinions of those who do. In such a role, the staff can often remain more objective and keep a clearer view of the current national condition of instruction. Certainly, after years of collecting and listening, a central agency’s staff is capable of noticing and summarizing trends in the field, and grows sensitive feelers which catch drifts and hints of activity before substantiating evidence appears.
Certain methods and materials are not in as widespread use and vogue as previously. Conducted tours, for example, are not as popular as they were several years ago. General library orientation programs using a slide/tape format may still be in use, but are expensive to maintain, difficult to revise, and often too impersonal to appeal to many patrons. Except on specific demand, bibliographies and simple lists of sources are not being produced on such a widespread basis; general lecture session outlines are becoming briefer as instruction librarians discover that being complex and verbose is not necessarily better. Handouts are becoming shorter as programs are simplified and refined. Similarly (and happily), the LOEX clearinghouse now receives fewer requests for "unique," "new," or "progressive" instruction samples, as practitioners realize that the best instruction need not be perpetually inventive. As a specific audiovisual tool, videotape has not appreciably grown in use as a teaching method. More library programs are being organized with guidelines and objectives in mind, and with input from the academic community; bandwagon approaches are less in evidence.

In contrast, some techniques and kinds of materials are being chosen and produced by greater numbers of instruction librarians. These trends are evidenced in particular by the requests for like samples which the LOEX office receives. For example, interest in computer-assisted instruction is expanding. Credit courses in library skills continue to be established. Self-paced/programmed workbook/exercises are in widespread use. Required units of library skills in beginning-level English, composition, and communication courses are more prevalent than in years past. The installation of unified systems of library graphics is now widely recommended. Audiovisual tools are being installed at the point of use, with the most effective programs lasting ten minutes or less. More libraries are using pretests to assess and measure the skills (or lack of them) and the attitudes of library users. Instruction in the use of data base searching and alternative methods of card catalog use is rapidly expanding. Finally, subject-related library instruction is growing; this type of approach helps to solve the universal problem of freshman-level orientation, which is often too much too soon, "a single massive inoculation...against all further needs for information-search knowledge."2

Advocates of instruction must continue to be concerned with the quality and pertinence of their programs. There are several related areas of user education in current need of attention and development. One must keep in mind Patricia Knapp's assertion that "faculty members, quite rightly, regard use of the library as a means toward the achieve-
TABLE 1. Academic Library Instruction Statistics

<table>
<thead>
<tr>
<th>Enrollment Levels</th>
<th>December 1979 (base 830)</th>
<th>May 1973 (base 193)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Libraries</td>
<td>Percentage of Total</td>
<td>Number of Libraries</td>
</tr>
<tr>
<td>Fewer than 1000</td>
<td>194</td>
<td>23</td>
</tr>
<tr>
<td>1000-4999</td>
<td>305</td>
<td>37</td>
</tr>
<tr>
<td>5000-9999</td>
<td>144</td>
<td>17</td>
</tr>
<tr>
<td>10,000-14,999</td>
<td>70</td>
<td>8</td>
</tr>
<tr>
<td>15,000-20,000</td>
<td>64</td>
<td>8</td>
</tr>
<tr>
<td>20,000+</td>
<td>53</td>
<td>6</td>
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<table>
<thead>
<tr>
<th>Type of Library</th>
<th>December 1979 (base 830)</th>
<th>May 1973 (base 193)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community/Technical/Two-year</td>
<td>209</td>
<td>25</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>119</td>
<td>14</td>
</tr>
<tr>
<td>Graduate</td>
<td>26</td>
<td>3</td>
</tr>
<tr>
<td>Undergraduate/Graduate</td>
<td>395</td>
<td>48</td>
</tr>
<tr>
<td>Divisional</td>
<td>55</td>
<td>7</td>
</tr>
<tr>
<td>Special</td>
<td>26</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Staffing/Personnel</th>
<th>December 1979 (base 830)</th>
<th>May 1973 (base 193)</th>
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</thead>
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<tr>
<td>Part-time</td>
<td>759</td>
<td>91</td>
</tr>
<tr>
<td>Full-time</td>
<td>71</td>
<td>9</td>
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<th>Program Administration</th>
<th>December 1979 (base 830)</th>
<th>May 1973 (base 193)</th>
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<tr>
<td>Through reference department</td>
<td>287</td>
<td>35</td>
</tr>
<tr>
<td>Separate division/Coordinator</td>
<td>37</td>
<td>4</td>
</tr>
<tr>
<td>Haphazard/No response</td>
<td>-</td>
<td>61</td>
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<table>
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<tr>
<th>Library Instruction Mandatory</th>
<th>December 1979 (base 830)</th>
<th>May 1973 (base 193)</th>
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<tr>
<td>Freshman</td>
<td>656</td>
<td>79</td>
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<tr>
<td>Sophomore</td>
<td>465</td>
<td>56</td>
</tr>
<tr>
<td>Junior</td>
<td>370</td>
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<tr>
<td>Senior</td>
<td>369</td>
<td>44</td>
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<tr>
<td>Transfer</td>
<td>229</td>
<td>28</td>
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<tr>
<td>Faculty</td>
<td>254</td>
<td>31</td>
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<tr>
<td>Special groups</td>
<td>420</td>
<td>51</td>
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<table>
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<tr>
<th>Instructional Methods</th>
<th>December 1979 (base 830)</th>
<th>May 1973 (base 193)</th>
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<tbody>
<tr>
<td>Credit courses</td>
<td>347</td>
<td>42</td>
</tr>
<tr>
<td>Seminars/Workshops</td>
<td>274</td>
<td>33</td>
</tr>
<tr>
<td>Term paper clinics</td>
<td>173</td>
<td>21</td>
</tr>
<tr>
<td>Lectures</td>
<td>790</td>
<td>95</td>
</tr>
<tr>
<td>Computer-assisted</td>
<td>18</td>
<td>2</td>
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<tr>
<td>Point-of-use programs</td>
<td>575</td>
<td>69</td>
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<tr>
<td>Tours</td>
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<td></td>
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<tr>
<td>Conducted</td>
<td>670</td>
<td>81</td>
</tr>
<tr>
<td>Tape</td>
<td>87</td>
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</tr>
<tr>
<td>Slide/Tape</td>
<td>139</td>
<td>17</td>
</tr>
<tr>
<td>Printed self-guided</td>
<td>263</td>
<td>32</td>
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<tr>
<td>Individualized instruction</td>
<td>558</td>
<td>67</td>
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LIBRARY TRENDS
TABLE 1. — Continued

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<tr>
<td></td>
<td>Number of Libraries</td>
<td>Percentage of Total</td>
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<td>Instructional Materials</td>
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<td>Print:</td>
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<tr>
<td>Bibliographies</td>
<td>468</td>
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<tr>
<td>Subject guides/Pathfinders</td>
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<td>40%</td>
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<tr>
<td>Guides to tools</td>
<td>405</td>
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<tr>
<td>Exercises</td>
<td>518</td>
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<tr>
<td>Workbooks</td>
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<td>11%</td>
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<td>Library handbooks/Guides:</td>
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<td>Students</td>
<td>456</td>
<td>55%</td>
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<tr>
<td>Faculty</td>
<td>179</td>
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<tr>
<td>Miscellaneous handouts</td>
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<td>44%</td>
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<tr>
<td>Nonprint:</td>
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<td>Transparencies</td>
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<tr>
<td>Slides</td>
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<tr>
<td>Slide/Tapes</td>
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<td>Tapes/Cassettes</td>
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<td>Video</td>
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<td>13%</td>
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<td>Film</td>
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<td>Filmstrips</td>
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<td>None</td>
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<td>Evaluation Methods</td>
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<tr>
<td>None</td>
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<td>Informal:</td>
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<tr>
<td>Faculty</td>
<td>58</td>
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<tr>
<td>Student</td>
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<td>Library staff</td>
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<td>1%</td>
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<td>Testing</td>
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<td>7%</td>
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<tr>
<td>Written feedback:</td>
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<tr>
<td>Student</td>
<td>164</td>
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<tr>
<td>Faculty</td>
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<td>Validated control groups</td>
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<td>Faculty committee review</td>
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<tr>
<td>General impressions of</td>
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<tr>
<td>student performance</td>
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<tr>
<td>Publicity Methods</td>
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<tr>
<td>Signs/Posters</td>
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<tr>
<td>Personal faculty contact</td>
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<tr>
<td>Letters to faculty</td>
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<td>35%</td>
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<tr>
<td>Student newspaper</td>
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<tr>
<td>announcements</td>
<td>257</td>
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<td>Faculty newsletter</td>
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<tr>
<td>announcements</td>
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<td>Faculty committee</td>
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<tr>
<td>announcements</td>
<td>79</td>
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<tr>
<td>Engaged in Orientation</td>
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</tr>
<tr>
<td>Instruction Research</td>
<td>324</td>
<td>39%</td>
</tr>
</tbody>
</table>
ment of their own teaching objectives"; and librarians must maintain an objective view. Librarians ought not to become so involved with their own particular projects, stellar as they may be, or to place such emphasis on one particular method, that they lose an objective sense of the long-range picture. We need constantly to be assessing the total position and direction of library instruction in our institutions with a broad and impartial outlook.

Unless programs are well thought out and based on actual need, instruction can often appear monotonous, repetitive, superficial, more exuberant than reasoned, cliché-ridden, and based on naïve assumptions. We need to hear the reasons for failure of programs. We need a more standardized tool for measuring library use competence. Instruction programs are more often than not ethereal, and work needs to be done to embed the library skills unit, so essential for today's researcher, in more courses in higher education. Instruction practitioners must be assiduous in collecting and recording statistics, for keeping track of the particulars of project use is invaluable in judging the degree of impact and usefulness of activity.

To maintain enthusiasm and vigor, the instructional staff must avoid situations leading to all-too-common burnout: inadequate staffing and long, continuous hours of work; constant, low-grade stress coupled with a lack of independence; a feeling of isolation from fellow workers; and a feeling that the individual has little effect on the overall service—situations to which instruction librarians are particularly susceptible.

We also need more library school curricula which include teaching about instruction in library use, as schools are not equipping graduates with the knowledge and skills to compete for the orientation/instruction positions available today. Today's students need more than the expertise to explain the complexities of the card catalog; they need, Boissé asserts, "an understanding of the philosophical base for bibliographic instruction, a knowledge of the various approaches to the task, experience in designing a program through the delineation of clear, precise goals and objectives...[and] instruction in designing and producing materials which will assist them in implementing a program."4

How does the LOEX office assist a library instruction librarian who has not received this kind of training for user education? In response to several hundred requests for such assistance, and in an effort to provide a solution to the quandry so many face, the LOEX clearinghouse distributes the following guidelines as a starting point.
Library Use Education

Suggested Outline Plan of Action for Basic Library Instruction

To Establish a Program:
1. Consider the academic environment:
   a. define academic setting: institutional nature, subject emphasis, programs, core courses, distribution requirements, size, resources
   b. profile student/library user population
   c. assess library personnel/materials
   d. discuss tentative ideas with administrators/faculty
   e. assess library interests/needs of total academic community
   f. determine initial target/pilot group and program format for maximum practicality/effectiveness
   g. discuss proposed program and organizational structure with entire staff/administrators; finalize plans
   h. contact LOEX Clearinghouse for sample ideas to save time and avoid duplication of effort
2. Plan the library instruction program details:
   a. write objectives for the program methods, utilizing faculty, staff, and administrative input
   b. delineate personnel/support staff needs and responsibilities, needs for equipment/facilities/support services
   c. list possible instructional materials to be prepared
   d. compose a tentative budget
   e. devise a projected timetable for implementation
   f. design/plan evaluation methods/procedures

To Implement the Program:
1. Publicize the program to:
   a. library staff members
   b. faculty
   c. students
   d. all administrators
2. Prepare instructional materials to support teaching methods:
   a. printed guides, worksheets, evaluation forms, handouts, etc.
   b. media materials if needed
3. Test program on limited target portion of population
4. Implement program fully:
   a. solicit support/involve library staff members
   b. keep detailed statistics
   c. conduct some evaluation each term
d. write/revise annual objectives to keep attainment possible

e. continue to publicize the program

5. Remain flexible and patient:
   a. revise
   b. simplify
   c. expand
   d. read in the field/attend conferences for inspiration

6. Keep the program working—changing as user needs change—for six to ten years

To share a personal concern, it may be time to reemphasize the cooperative aspect of the roots of the successful growth of library instruction in our country. Through experience gained from the clearinghouse's role as an automatic monitor of the scene, I have noticed of late a faintly erratic pulse. This potentially disturbing signal may be the result of a preoccupation with promoting one's own library, invention or opinion; a proprietary attitude toward a certain method or tool; or, perhaps, the apparent reluctance on the part of a few "pioneers" to relinquish the narrow renown of a "holding forth" position. These attitudes and propensities should not override our real and common concern, that of promoting library user education as a legitimate and essential component of any library's total service program. Thus, those who claim any responsibility for the ongoing success of instruction should be most careful to avoid any hint of arrogance or patronization, as there are hundreds of new librarians in the field who are justifiably more concerned with how to adapt existing methods and materials than with paying homage to the materials' creators. After a decade of monumental effort and experimentation, it is time to put any sacred instructional cows out to pasture, and to consolidate in order to promote the importance of library instruction among peers and members of our academic communities.

Although it is presumptuous to propose a method of program implementation for every situation, since local circumstances determine the nature and content of any instruction activity, the needs of the library users will ultimately decide the future of the program itself. We must continue to alter programs as the needs of the users change, whether or not they veer in the direction we would like to see them move.

Past cycles of interest in library user education have failed because the programs themselves have declined in effectiveness. This decline, as Thomas Kirk has indicated, was the result of four weaknesses:


Library Use Education

1. Those involved failed to distinguish orientation from instruction and therefore provided only the former;
2. The instruction or orientation was not given in a context of the student's need to know how to use the library;
3. The instruction when it went beyond orientation tended to take its scope and content from the reference training which librarians had received;
4. Librarians were not sensitive to educational changes that were occurring.

To avoid repeating these mistakes, we must remain most objective about the role, scope, relevance, and limitations of library instruction. The majority consensus of librarians of LOEX member libraries reflect the notion that instruction, as they live and breathe and practice it, is not an end in itself. The use of the library and the application of search strategy is taught not in isolation, but in context with the library user's lifelong experience with information.

References

5. Copies of the outline are available on request from the LOEX Clearinghouse, Eastern Michigan University Library, Ypsilanti, Mich. 48197.
Structuring Services and Facilities for Library Instruction

THOMAS G. KIRK
JAMES R. KENNEDY, JR.
NANCY P. VAN ZANT

Introduction

This is a bibliographic essay on the administrative and pedagogical issues related to the establishment and operation of an instruction program. The authors assume that such a program is an essential part of any academic library which fully supports an academic program. We also assume that the library administration and staff are committed to bibliographic instruction.

This review of the literature will describe the state of the art and also indicate some unresolved problems and unanswered questions. This review began with such basic works as Lubans, Scrivener, and Givens,¹ and concentrated attention on publications from 1973 to June 1979.

Two recent committee reports are most important to this paper and will be cited frequently. The Bibliographic Instruction Handbook (1979), written by a committee of the Association of College and Research Libraries (ACRL), outlines what academic librarians should consider in implementing a program: objectives, organization, staffing, instructional materials and methods.² The other key publication, edited by Manning in Australia, is prescriptive in tone and specifies objectives, staffing, organization, facilities, and equipment for a typical program.³ A 1978 book by Fjällbrant and Stevenson is a useful, but somewhat simplified, how-to manual for beginners.⁴

¹Thomas G. Kirk is Acting Director of the Library/Learning Center, University of Wisconsin-Parkside, Kenosha; and James R. Kennedy, Jr., and Nancy P. Van Zant are Reference Librarians, Earlham College, Richmond, Indiana.
The paper is unevenly divided into two main sections. The first, on services, covers objectives, evaluation, methods of instruction, staff organization, faculty status, impact on other library services, and budgetary aspects. The second major section which focuses on facilities, discusses the space and equipment needs of bibliographic instruction programs.

Environmental Factors

In planning an instruction program, several factors, which vary from institution to institution, need to be considered. The larger the staff, the more important are the formal structures for communication, while a staff of fewer than ten may operate fairly informally. The nature of course assignments largely determines how much bibliographic instruction is needed by students. For example, term paper assignments, independent study projects, and graduate-level courses all lead to more bibliographic instruction than does undergraduate teaching dependent upon textbooks and lectures. The degree to which librarians may shape the nature of assignments depends on the librarians' relationship to curricular planning bodies and to individual faculty members. All these factors, and others, shape the environment within which librarians plan and carry out their bibliographic instruction programs.

SERVICES

Objectives

An important development of the 1970s was the wide recognition that planning for bibliographic instruction involves setting objectives. The most useful ideas on how to write and implement objectives are in the proceedings of the 1975 Midwest Federation of Library Associations sessions.5

Three categories of objectives (or goals) may be distinguished. Long-term instructional objectives are “grand” statements such as “by the time she/he graduates, a student should be able to make effective use of library resources.” Short-term instructional objectives primarily concern the retention of factual material and procedures for using library materials. In addition to the model objectives in the ACRL Bibliographic Instruction Handbook, SUNY-Buffalo, the University of Texas, University of Wisconsin-Parkside, New Hampshire Vocational Technical College, and many others have all published written statements of objectives.6
When one begins a new program, it is desirable to draw up a timetable to indicate when various parts of the program are to be initiated. The timetable might also indicate how rapidly various activities will be increased in volume and intensity. The timetable is useful in communicating plans to those directly involved in the program, to the administration of the institution, and to those for whom the program is intended. The timetable also provides a basis for budget planning. The authors of the ACRL committee’s Bibliographic Instruction Handbook recognized the importance of such timetables and included a model five-year timetable for the implementation of a bibliographic instruction program.

One would expect to find examples of timetables in the literature, since so many institutions have initiated programs of bibliographic instruction recently. However, the only published timetable of which the authors are aware is that prepared at the University of Texas Libraries. This document, published in 1977, covers in some detail the first two years of implementation in two stages, while the third stage, 1979 and the future, is very sketchy. It would be interesting and useful to see a revised timetable which provided more detail for the third stage. Further, it would be enlightening to know their experiences of trying to follow the timetable. Both the ACRL model and the Texas timetable suffer from serious omissions: specifics of staff, space, and equipment needs for the implementation of a program.

Evaluation

Evaluating programs in terms of their stated objectives has been another major concern of the 1970s. Since evaluation is discussed by Werking elsewhere in this issue, we will not pursue the topic further, except to say that the profession faces a major task not unlike that of all teaching faculty. How does one judge whether the immediate objectives and their attainment contribute to the achievement of the long-term objectives? In fact, three recent publications question the widely held assumption that long-term objectives are achieved through instruction in the use of specific reference sources.

Methods of Instruction

The type of instruction employed will depend on the objectives of the program. For example, the objective of orienting great numbers of new students to a large library and its services suggests using a slide-tape presentation or a self-guided tour. On the other hand, the objective of
enabling a group of doctoral candidates to find materials for their
dissertations suggests a separate course or a series of individual confer-
ences. There are many other modes of instruction. For the most com-
plete list, the reader should refer to the Bibliographic Instruction
Handbook.

Many librarians have reported on separate courses since Rader's
1974 survey. The courses are generally a systematic treatment of types
of reference sources, e.g., encyclopedias, periodical indexes, and bibli-
ographies. Although a few courses are warmed-over reference courses,
most librarian-teachers have avoided this pitfall. Roberts has rightly
pointed to the importance, perhaps ultimate importance, of the person-
ality of the instructor. There is no one best style of teaching, which
makes it exceedingly difficult to assess the merits of a separate course.
One of the major unanswered questions is the cost-effectiveness of this
method of instruction, particularly in a small institution. Another
important question is how to prevent the librarian-instructors from
becoming “burnt out” from the repetition and overwork.

Workbooks, exercises and slide-tapes have been widely used in
connection with courses. Workbooks were pioneered by Dudley at
UCLA and adopted by many major universities as a way to provide
self-instruction in library resources. They are divided into chapters,
each dealing with a type of reference source. After a description of the
function of a particular type of tool and a brief description of individual
titles, the workbook asks questions which reflect the primary uses of
that type of tool. To answer the questions the student must use the titles
discussed in the introduction. Some versions conclude with a chapter on
search strategy. Dudley and her followers asked students to fill in
blanks; Renford added a new twist by using multiple-choice ques-
tions. The University of Wisconsin-Parkside is developing a series of
subject-specific workbooks, partially funded by the Council on Library
Resources and the National Endowment for the Humanities, which
have been used successfully for about three years.

Library exercises have also been widely used with courses. These
frequently take a form similar to individual chapters in workbooks.
Another form often used is a sheet on which students can write notes
indicating what they located at each step in their search. Such exercises
function both to guide students in their individual searches and to
provide feedback to librarians and/or teaching faculty. A third type of
exercise is a guided demonstration of an actual search. Written as
programmed material, it requires students to use the library as they
proceed. Both search strategy and the use of specific reference sources are
covered in the context of a specific library. The original guided exercise focused on use of the biological literature. As a result of a project funded by the National Science Foundation, guided exercises were developed for physics, engineering, geology, and additional versions were produced for biology.\(^{17}\)

The strength of guided exercises as an instructional method is also their major weakness. Because they focus on using reference sources and techniques within the context of a particular library, guided exercises are difficult to transfer from the originating library to others. To overcome this problem, the guided exercises have been recast as texts which, like workbooks, illustrate the types of reference tools, but in the context of an overall search strategy and without requiring the student to interact with the library.\(^{18}\)

Slide-tapes have been widely used in class presentations and less often as point-of-use instruction. After isolated individual attempts at development, the library profession “discovered” the expertise of the media production specialist. Since then, slide-tape presentations have improved greatly. Hardesty has reviewed current activity in a brief 1977 article and in a fuller monograph;\(^{19}\) the latter includes a short guide to the six most common faults in sound-slide production.

Little new has been written about course-related (assignment-related) instruction. The most significant recent publication was Eastern Michigan University’s 1975 final report on its outreach program.\(^{20}\) This highly successful program points up two of the major difficulties associated with course-related approaches: working with faculty and their ideas, and communicating within the library about the instruction program and the students’ assignments. Elsewhere Farber has dealt with the question of how librarians can communicate effectively with faculty.\(^{21}\) A continuing problem for course-related instruction is that individual sessions are not well integrated into an overall plan of action. While this may be unavoidable, since individual courses are often not well integrated into an overall curriculum plan, such integration should not be dismissed as impossible or unnecessary. If the program is left to drift, unplanned, two serious problems will develop: duplication, which results in overkill; and gaps in coverage, which leave some students with little or no bibliographic instruction. Perhaps the major advantage of course-related instruction over the separate course is that it enables more students to receive relevant help at the time they need it. The separate course helps fewer students and its relevance to immediate course needs is sometimes questionable.\(^{22}\)

Librarians have also developed several types of teaching materials
THOMAS KIRK, ET AL.

that function independently of courses. Many librarians have produced printed guides to the whole library or to the library resources for several disciplines. Such guides, as described by McCormick, have improved because design and printing have become more professional.

Point-of-use instructional aids also serve students with miscellaneous needs. These are audiovisual or printed materials located close to the reference source described. However, the problem of finding satisfactory audiovisual equipment has restricted most point-of-use instruction to printed materials. Stevens and Gardner have written the latest review of point-of-use instruction. Now librarians can purchase commercially illustrated guides to reference sources to use as point-of-use aids.

The University of Denver's use of computer-assisted instruction in 1973 has been described, but since 1974 little has been reported in this field. (One exception is the continued work with PLATO.) There are three main reasons for this lack of development: cost of interfacing computers with display devices in order to provide samples from reference sources; lack of available funds for this approach; and lack of hands-on experience, which is inherent in computer-assisted instruction. Most librarians who use interactive instruction (e.g., workbooks, programmed instruction) do so to integrate information about the library and reference tools with hands-on experience in the library, something which computer-assisted instruction does not do well.

Staff Organization

Dyson's survey found that most bibliographic instruction programs are organized in one of three patterns. Two of the patterns place authority with a library instruction librarian. In one case this person is a member of the public services staff, and responsibility for bibliographic instruction has been added to other responsibilities. In the other case, the instruction office is set up as a separate operation outside the traditional library structure. A third pattern places authority with a unit head, such as the head reference librarian or the head of the undergraduate library.

Whatever the structure, three conditions are essential. First, the administrator of the bibliographic instruction program must be at a level equal to that of administrators of reference, circulation, cataloging, and acquisitions. Second, there must be adequate communication among faculty, instruction librarians and reference librarians. Finally, all three groups must support the activity.
Structuring Services and Facilities

For too long, most instruction librarians have not had enough support staff and have had to do too much clerical work themselves. What is needed is a streamlined operation, like technical services, where support staff are trained to carry out certain tasks. For example, secretarial help should take over the typing of bibliographies, and audiovisual staff should take over the preparation of transparencies, slides and tapes. Both the ACRL committee's *Bibliographic Instruction Handbook* and the Manning report cited earlier are emphatic about the need for adequate support staff.

Faculty Status

Some have suggested that librarians are interested in bibliographic instruction because their teaching helps justify faculty status. The reverse might also be argued. Having been granted faculty status, librarians are evaluated along lines similar to those of teaching faculty. Therefore, librarians are motivated to take on a teaching role. Resolving this argument would be an interesting piece of sociological research.

Does faculty status make a strong program of instruction more likely? While there are no formal studies of this, several years of talking with instruction librarians and visiting academic libraries convince these authors that institutions which have successful instruction programs are no more likely to have librarians with faculty status than academic libraries in general. The critical elements are the librarians' initiative and the degree to which the academic community or certain segments of it have confidence in individual librarians and the library. The biggest problem for instruction librarians, particularly in large libraries, is to develop this confidence. What makes this so difficult is the lack of library administrative support and the widely held attitude that the library never has needed material available.

Impact on Other Library Services

Bibliographic instruction is not an isolated activity. It has impact on other library services, particularly reference, interlibrary loan, and on-line searching. To ignore this impact would have serious consequences for the bibliographic instruction program as well as for the affected services.

The most obvious service to be influenced by an instruction program is reference service. Two studies illustrate the effect on the level and types of questions asked.
Wilkinson's study of undergraduate reference services compared the Swarthmore and Earlham college libraries. Both a greater number and degree of difficulty of reference questions was found at Earlham, which had an instruction program, than at Swarthmore, where bibliographic instruction was lacking. More recently, Eastern Michigan University's final report on their library outreach project showed a substantial increase in the number of "Search" and "Extended Search" questions as well as a slight increase in the number of "General Information" questions, while the number of "Demonstrate" questions decreased slightly (see table 1). This increase is even more remarkable in light of the fact that the university's enrollment declined 7 percent during that period.

### TABLE 1. REFERENCE QUESTION ACTIVITY AT EASTERN MICHIGAN UNIVERSITY

<table>
<thead>
<tr>
<th>Type of Question</th>
<th>1970/71</th>
<th>1974/75</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>General information</td>
<td>57,593</td>
<td>58,909</td>
<td>2.3</td>
</tr>
<tr>
<td>Demonstrate</td>
<td>31,071</td>
<td>27,573</td>
<td>-11.3</td>
</tr>
<tr>
<td>Search</td>
<td>4,075</td>
<td>11,573</td>
<td>181</td>
</tr>
<tr>
<td>Extended search</td>
<td>216</td>
<td>1,025</td>
<td>375</td>
</tr>
<tr>
<td>Total</td>
<td>92,958</td>
<td>99,080</td>
<td>6.6</td>
</tr>
</tbody>
</table>


Neither study takes into account many other factors which can affect the number of reference questions. Nevertheless, the data suggest that there is a direct relationship between formal instruction and the volume and complexity of reference questions, and that further study is warranted.

Some librarians have claimed that interlibrary loan volume is affected by the activities of a bibliographic instruction program, but there is no evidence to indicate the nature of the effect. Like the level of activity at the reference desk, numerous conditions stimulate interlibrary loan activity. This question needs closer observation and further study.

Instruction in the use of on-line search services is discussed by Lawrence elsewhere in this issue. Here we would like to respond to the
attitude, which some in the profession hold, that on-line searching eliminates the need for instruction. Some assume that because the librarian is able to provide the information, it is no longer necessary for the librarian to teach students how to use the library. What is envisioned is a relationship similar to that of the special librarian to the subject specialist. However, this position fails to recognize the fundamental difference between the academic librarian-student relationship and that of the special librarian and subject specialist. The student (even the graduate student) is learning about the use of libraries and the characteristics of the literature as well as the subject, while the subject specialist, who may not know much about using the library, does know the subject area and its literature. On the other side, the academic librarian, even with an advanced degree, is not in a position to have the detailed subject knowledge behind each student's library use. Instead of attempting to copy the special librarian-subject specialist model, academic librarians should incorporate searching into the instruction program. As in other library services, orientation and instruction elements should be included in a bibliographic instruction program:

1. Orientation
   a. Description of the service
   b. Availability of the service (To whom? At what cost?)
   c. How the service is different from/similar to printed indexes

2. Instruction
   a. Student self-preparation to use the service
   b. Limitations of the service
   c. How to do a search (if this is simple enough to teach in the available time).

While it seems unlikely that students will actually operate the terminal in the near future, it is still important that they understand the potential and limitations of computer searching. These aspects can be discussed in general terms, but specific information on and examples of the advantages and disadvantages of computer searching will improve the students' understanding. The attitude that on-line searching will supplant instruction is just part of the larger issue concerning the purpose of academic library reference service: is it to supply information or to educate students?

Budgetary Aspects

Several studies have been completed which deal with costs and budgets. Two reports provide cost data on specific activities. The Uni-
versity of Kentucky Libraries estimated the cost of implementing the instruction program in first-year English courses at $2.10 per student. Renford has estimated the cost of workbook development at the libraries of Pennsylvania State University at $16,620. Costs are to be recovered by charging users for the workbook.

The only information approaching a complete assessment of the costs of an instruction program is found in the annual reports of the University of Wisconsin-Parkside's Bibliographic Instruction Coordinator. The report for 1977-78 indicates that total costs for the bibliographic instruction program were $36,059. According to the report, the program reached 2110 patrons, which makes an average of $17.09 per person. Because there are no guidelines for such cost studies or figures available from comparable institutions, it is difficult to interpret this figure. Furthermore, the Parkside report does not take into account the cost of equipment purchased primarily or exclusively for this program. The report also does not specify the activities included in the time personnel devoted to the program. Neither can the reader discern whether time involved in faculty contact, much of which may not lead to instruction or concerns peripheral matters, but which may lead to relationships which support instruction, is included in cost figures. In considering the costs of any program, it is important that they not be overestimated; many of the activities mentioned above are likely to exist in a different context if an instruction program does not exist.

FACILITIES

A discussion of facilities which support a bibliographic instruction program necessarily focuses on the teaching location and the staff’s work area and equipment.

Location

The literature suggests that a classroom in the library, the reference area, or a classroom outside the library are the three most common locations for instruction. While there is no discussion of this in the literature, the authors find that the decision of which location to use is based on the type and method of instruction as discussed above, the size of group, length of presentation, convenience, preference of the instruction librarian, and in the case of course-related instruction, preference of the faculty member.
If the location of instruction is a pedagogical issue, the educational research literature does not bear that out. Robert Dreeban, in reviewing the classroom setting as a factor in the teaching-learning process, concludes that the results of research up to that point (1971) provided no clear guidance. The location of the instruction as a variable in structuring facilities and services needs greater attention by instruction librarians. Table 2 lists advantages and disadvantages for each of the three choices. The table assumes that the "typical" pattern of facilities that exists on college and university campuses is present: (1) the library's reference area was not designed for classroom use, (2) a classroom in the library is specially tailored to the bibliographic instruction program's needs, and (3) classrooms on campus vary widely in the audiovisual services conveniently available. Further work is necessary to provide a detailed examination of the issue.

**TABLE 2. CHARACTERISTICS OF LOCATIONS FOR BIBLIOGRAPHIC INSTRUCTION**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Classroom in Library</th>
<th>Reference Area</th>
<th>Classroom not in Library</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience of bringing library materials to class</td>
<td>+</td>
<td>++</td>
<td>0</td>
</tr>
<tr>
<td>Students able to handle library material</td>
<td>+</td>
<td>++</td>
<td>0</td>
</tr>
<tr>
<td>Audiovisual facilities needed can be assured</td>
<td>++</td>
<td>0</td>
<td>+</td>
</tr>
<tr>
<td>Halo effect of newness; change of location</td>
<td>+</td>
<td>++</td>
<td>0</td>
</tr>
<tr>
<td>Familiarity of the space</td>
<td>0</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Exposure to physical layout of library and reference area</td>
<td>+</td>
<td>++</td>
<td>0</td>
</tr>
<tr>
<td>Reinforcement of relationship of bibliographic instruction to other course material</td>
<td>0</td>
<td>0</td>
<td>+</td>
</tr>
<tr>
<td>Valuable library space not taken for classroom purposes</td>
<td>0</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>No possibility of missing communications</td>
<td>0</td>
<td>0</td>
<td>+</td>
</tr>
<tr>
<td>Comfort (class members do not have to stand; have place to write)</td>
<td>+</td>
<td>0</td>
<td>+</td>
</tr>
<tr>
<td>No distraction to users of reference area</td>
<td>+</td>
<td>0</td>
<td>+</td>
</tr>
<tr>
<td>No distraction to class members by other people in area</td>
<td>+</td>
<td>0</td>
<td>+</td>
</tr>
<tr>
<td>Capability of housing class size</td>
<td>+</td>
<td>0</td>
<td>++</td>
</tr>
</tbody>
</table>

+ — Suitable; ++ — Especially suitable; 0 — Unsuitable
*Factors apply only to course-related instruction.
Work Space and Equipment

The latest review of point-of-use instruction discusses the problems of expensive, unreliable audiovisual equipment, problems with no readily apparent solution. There is little information available for planning point-of-use instruction in reference areas. Graphics, hanging signs, and/or noisy and unattractive audio and audiovisual equipment detract from an otherwise functional and aesthetically pleasing reference area. An additional consideration is the ease with which instructional materials can be set up near the tools being discussed. Librarians considering the addition of the point-of-use format to an existing reference area should consider whether renovation of the area will adequately integrate the point-of-use materials/equipment with the reference collection and services. Plans for new reference areas should take into account space and utility needs for point-of-use instruction if adoption of that format is anticipated.

All instruction formats have spatial characteristics which should be considered. If workbooks or guided exercises are used, is there enough space for students to work? If computer-assisted instruction is used, will there be terminals in the library, or must students go to another location on campus? The library must evaluate the local facilities with regard to the physical aspects of a particular instructional method or format before making a commitment. Further, the pedagogical impact of various locations must be addressed.

Both the Australian recommendations and the ACRL Bibliographic Instruction Handbook recognize the importance of planning for adequate work space and necessary equipment for the staff. The essential equipment is that found in the typical office: desk, chair, filing cabinets, typewriter, and telephone. Other equipment and facilities will depend on the nature of the programs. It is important to include basic equipment in plans and to give it appropriate emphasis in setting up a facility.

Conclusion

In the six years since the publication of John Lubans’s Educating the Library User, the development of bibliographic instruction has been uneven and tentative. Nevertheless, there is a growing recognition of the importance of bibliographic instruction in academic libraries. Advocates of bibliographic instruction and instruction librarians must be increasingly sophisticated in their approach to the planning, organization and management of bibliographic instruction programs. The
administration of services and facilities should become integral to the
total library organization and planning process.

The many questions stated and left unanswered by this paper need
to be addressed and modes for answering them found. Bibliographic
instruction has the potential for maturing into an element of library
service comparable to acquisitions, cataloging, circulation and refer-
ence. To achieve such a position, its proponents must avoid the tempta-
tion to settle for simple solutions to the problems of initiating and
maintaining bibliographic instruction programs. Instead, those com-
mitted to such programs must use their creative energies to work
through the political organization inherent in each institution,38 and to
utilize the best thinking on the design and delivery of instruction. At all
times, librarians must keep the fundamental purpose of their bibliogra-
phic instruction program clearly in focus: to support the educational
program of the parent institution.

References


7. University of Texas at Austin, General Libraries, op. cit.

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15. Here, as elsewhere in this section, it is not possible to cite a good source which describes and cites examples of a particular instruction method. Readers interested in a particular method should request information from LOEX clearinghouse at Eastern Michigan University. For information on LOEX, see Kirkendall, Carolyn A. "The Status of Project LOEX." In Rader, *Library Instruction...*, op. cit., pp. 25-30; see also Kirkendall, Carolyn A. "Library Use Education: Current Practices and Trends," elsewhere in this issue.


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Competency-Based Education and Library Instruction

CARLA J. STOFFLE
JUDITH M. PRYOR

In recent years competency-based education, an educational approach which structures learning around competencies defined as fundamental for successful performance, has gained wide acceptance in both secondary and postsecondary educational settings. Although competency-based education is thought of as a new approach, it has antecedents as far back as the late nineteenth century in a variety of educational movements, including those for efficiency in education, vocational education, progressive education, and instructional technology.

Currently, on the secondary level, the competency-based education movement has become synonymous with the "competency demonstration" or minimum competency testing requirements enacted in the last six years in thirty-four states. Competency-based education in this context centers on setting performance standards in the basic skills (reading, writing and mathematics). Student demonstration of at least minimum levels of performance is necessary for promotion or graduation. Required standards or competencies are generally set by state education agencies in consultation with professional educators and local citizens. The immense support the movement has received on the secondary level is the result of citizen concern over perceived shortcomings of the public schools. Many citizens complain that "schools are not as educationally effective as they have been in the past or as they need to

Carla J. Stoffle is Assistant Chancellor for Educational Services, and Judith M. Pryor is Coordinator for Library Instruction, University of Wisconsin-Parkside, Kenosha.
be to meet future societal needs." By supporting the competency-based education movement, citizens are "serving notice that they will no longer support declining student achievement, lax standards, and poor performance." Competency-based education is seen as an approach which will improve student achievement and will make school systems and teachers more accountable to the public.

On the postsecondary level the competency-based education movement first gained acceptance in programs that prepared students for careers in education, social work, engineering, and the technical fields in which knowledge and skills essential to professional success could be fairly easily stated. In more recent years, partially as a result of support from the Fund for the Improvement of Postsecondary Education, educators have made an effort to extend the application of the principles of the competency-based approach to liberal arts programs. The reason the fund is promoting the extensions of the competency-based approach to all areas of higher education is that the approach "is responsive to significant problems of service, delivery, costs, and accountability....[and therefore] it can be a very powerful device for bringing about improvements in postsecondary education." The potential benefits of the approach, as articulated by Thomas Corcoran, senior project officer for the Fund for the Improvement of Postsecondary Education, are:

First, it establishes standards. In the labor market there is a growing uneasiness about the value of educational credentials. Research indicates that the completion of a certain number of years of schooling is not a very reliable indicator of a person's competence or even his ability to learn. Better evidence is required to ascertain what individuals are able to do. Standards must be defined, debated, and tested against reality. This is important and the competency approach encourages it.

A second benefit should be increased productivity of educational institutions....As long as time-based degrees and norm-referenced testing are the means for awarding credentials, there is little that can be done to improve the productivity of educational systems....

A third benefit is that it expands the choices open to educational consumers. The presence of explicit standards for awarding credentials permits individuals to choose varied routes to attain the knowledge and skills needed to attain a particular credential....

A fourth benefit is the improved access to valued credentials. There are too many people, particularly minority individuals over the age of 25,...who have been denied access to education and therefore access to occupational mobility....

A fifth benefit is the enhancement of institutional quality. The competency approach provides a process for planning, designing, and selecting learning experiences....
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A sixth benefit comes from reducing the competitive character of schooling.... The system has become too competitive and the rules of competition have become more important than the definition of valid standards.... The competency approach offers a way of resolving the terrible conflict between the concern for equity, the need to reward merit, and the attaining of credentials for jobs.

A seventh benefit arises from the altered meaning of educational credentials. If credentials are performance-based, then they will be less capricious and arbitrary as general sorting mechanisms.... [The competency approach helps] to ensure that credentials are closely related to jobs or to the roles to be performed, and that they are accessible to all who possess the requisite skills.7

An understanding of educational reforms which influence institutions of higher education, especially those such as competency-based education which potentially have a significant effect on the curriculum and on teaching, is important for instruction librarians. Armed with this understanding, librarians are better able to relate their instructional programs to the needs of the institution and are prepared to adopt new approaches which may help improve the library instruction program itself. With this in mind, the authors have prepared this paper. The intent of the paper is to clarify for librarians the concept of competency-based education; to describe ways in which academic libraries at such diverse institutions as Alverno College, Doane College, Sangamon State University, University of Louisville, Findlay College, and University of Wisconsin-Parkside have been involved with competency-based programs; and to examine some of the considerations which must be weighed before adopting the approach.

What is Competency-Based Education?

Before considering competency-based education, it is necessary to clarify what is meant by competency. The Fund for the Improvement of Postsecondary Education has provided a useful definition: “Competence is the state or quality of being capable of adequate performance. Individuals are described as competent if they can meet or surpass the prevailing standard of adequacy for a particular activity. While competence does not equate with excellence, it does imply a level of proficiency that has been judged to be sufficient for the purpose of the activity in question.”8 Following from this definition of competency, competency-based education is: “a form of education that derives a curriculum from an analysis of prospective or actual role in modern society and that attempts to certify student progress on the basis of demonstrated performance in some or all aspects of that role. Theoretically, such demonstra-
tions of competency are independent of time spent in formal educational settings."

A competency-based program has three major components: competency identification, criteria level and assessment. Instruction is also a significant component, but is normally implemented after the three major components. Instruction evolves readily from them and is designed to facilitate the development of the required skills or behaviors. Many educational programs are concerned with instruction based on the achievement of identified goals or objectives. What distinguishes the competency-based approach is the manner in which it is developed. A competency-based program is conceived and planned based on the skills the exit-level student should possess. Competencies are identified with reference to specific roles stated in terms of what the student should know and be able to do. Once a set of competency statements is agreed upon, subcompetency statements are formulated. Next comes the development of performance objectives, statements which indicate what a student must be able to do in order to demonstrate the abilities called for in the competency and subcompetency statements. Criteria levels must be a part of each objective as a standard against which to compare performance. The criteria level must be as objective as measurement techniques permit.

Assessment procedures, the third major component of a competency program, are developed after the competencies and criteria levels have been established. Assessment of the student’s performance on a specific competency is best accomplished in a manner which measures performance under actual conditions. This approach is very expensive and usually not feasible. Most students are assessed using multiple-choice tests, simulations, games, etc. to measure their performance on the instructional objectives. In competency-based programs, assessment is criterion-referenced rather than norm-referenced. (“Criterion-referenced assessment measures the degree of attainment according to some defined standard, while norm-referenced assessment measures the relative behavior of two or more individuals from some defined population.”) Since competency-based education is goal- or outcome-oriented, assessment procedures are needed which allow for the demonstration of knowledge, skills, awareness of values, and the integration and application of these components. The emphasis is on measuring the student’s ability to acquire and apply knowledge as much as on measuring the depth and breadth of knowledge acquired. Ideally, the assessment of the competencies acquired is made without regard for time, place or sequence. In this context assessment is largely a diagnostic and learning experience.
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In competency-based programs, instruction is offered through a variety of methods. It may be offered through courses, internships or a variety of self-paced modules and learning packages. Regardless of the format, the emphasis is on designing learning experiences that will lead students to the achievement of competencies. No credit is given for exposure to classroom experience; only achievement or performance is given credit.

Libraries Involved in Competency-Based Programs

Of the institutions described in this paper where libraries are involved in competency-based programs, the only one with a campus-wide competency-based curriculum is Alverno College, a small, 1100-student liberal arts college for women in Milwaukee, Wisconsin. At Alverno, eight competencies have been identified which students must demonstrate at specified levels in order to receive a degree. The competencies are:

1. develop effective communication skill;
2. sharpen analytical capabilities;
3. develop workable problem-solving skill;
4. develop facility in making independent value judgments and independent decisions;
5. develop facility for social interaction;
6. achieve understanding of the relationship of the individual [to] the environment;
7. develop awareness and understanding of the world in which the individual lives; and
8. develop knowledge, understanding, and responsiveness to the arts and humanities.

These competencies are then divided into six levels.

Although librarians were involved in planning the curriculum, library or information-gathering skills are not specified directly in the eight competencies. Instead, library skills are conceived as skills necessary to achieve a number of specified competencies. For example, in order for students to demonstrate level one of competency six and competency seven, they must use the library. The skills necessary to locate the needed information have been identified as using the card catalog, identifying and using general indexes, and identifying and using appropriate biographical reference sources. These are taught by librarians in the "New Student Seminar," a beginning course coordinated by counselors who bring in different instructors to provide students with the learning experiences necessary to achieve several of the basic competencies. As students progress to upper levels of competen-
cies related to their disciplines, librarians provide instruction in bibliographic searching and discipline-specific sources. The students use the library skills to collect data which will be used in oral presentations and research papers specified as part of demonstrating the competency. Although librarians take an active part in the instruction designed to help students achieve their competencies and in the general assessment of some levels of the competencies, they do not engage in assessing student competency in terms of library skills.

In contrast to curriculum-wide library involvement at Alverno College, the library at Doane College, a small, 600-student college in Crete, Nebraska, is involved with only one program, the competency-based teacher education program. The program is called DEPTH (Doane’s Educational Program for Teacher Humanization) and was the result of a curriculum review by the education faculty and students. A librarian was involved in the planning from the initial stages, and library skills are included as one of the twenty-two competencies students must demonstrate before they may begin student teaching. Each of the competencies is then broken down into behavioral objectives which form the basis for assessment and for the learning materials. Student learning experiences are provided through classroom sessions and twenty-two self-paced printed instructional “DEPTH packets.” Students may attempt to demonstrate some or all of the competencies without completing the packet and, if successful, are excused from that portion of the instructional program. The library instruction component of the program includes lectures by the librarian and a DEPTH packet entitled “Self-Instruction Guide to Resources in Education,” which contains a series of guided exercises arranged in search strategy order. These exercises are designed to teach students how information is organized in the field of education and how the major sources basic to the field are used. The types of sources included in the packet are: encyclopedias, books, periodical articles, pamphlets, and government documents. Library competency is demonstrated through an assessment interview with the librarian, which normally takes place after the student has successfully completed the exercises. Students not demonstrating the required level of competency in library skills must repeat all or part of the packet. To reinforce the skills taught in the library competency, some of the other competency packets require that students use their library skills in completing the assignment, and one packet requires a term paper based on library research.

Another example of library skills competencies integrated into a discipline-specific competency program can be found at Sangamon
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State University, a midsized, 4000-student upper-division university located in Springfield, Illinois. The program is housed in the history department, and was developed under a grant from the Fund for the Improvement of Postsecondary Education. The broad competencies developed by the faculty and required for the bachelor's degree in history are:

1. an understanding of the major forces shaping the contemporary world;
2. an understanding of oneself in the contemporary world, as a means to understanding others in a historical perspective;
3. an understanding of the functions of culture in our own and other societies as they affect institutions, values, and behavior; and
4. the ability to identify, locate, and interpret primary and secondary historical materials.15

These competencies are broken down into enabling skills and then performance objectives. All students begin the program in a required introductory course called "The Roots of Contemporary History." At the beginning of the course, students are given diagnostic tests to determine their entering skill levels. Individual programs are developed to help the students achieve the necessary skills to meet the competencies. The performance objectives for the library skills competencies were developed by the faculty and approved by the library staff. The library skills competencies are demonstrated through the preparation of an acceptable library research paper. As part of the introductory course, library instruction workshops are presented by the liaison librarian for the history department. The librarian then does necessary follow-up work with individual students. The history faculty member who teaches the introductory course assesses the library skills competencies.16

At the University of Louisville, a large, 18,000-student urban university in Louisville, Kentucky, library skills competencies are included in one of the six core courses of the University College's program for open-admissions students. The three-credit course, called "Research with Printed Materials," was developed with the assistance of a university librarian. The competencies specified in the course curriculum are:

1. Acquaintance with the purposes, methods and nature of evidence that constitute the three major divisions of knowledge (Humanities, Social Sciences, and Natural Sciences), and specialized knowledge in the content and methods of investigation of several disciplines which can support advanced study.
2. An acquaintance with the existing sources of public information in various fields, and the ability to access and to use these sources.
3. Critical thinking skills which enable comprehension, analysis, and extrapolation of verbal, written and visual information.
4. Ability to conduct independent inquiry, and to communicate findings to others orally, in written and in visual forms.

The course consists of a lecture component and a practicum. Students spend two hours per week in lecture sessions dealing with the academic research process and the library sources and systems of information. In addition, students work one and one-half hours each week in the library completing individual worksheets which take them step by step through a research problem. Student competence is assessed by performance on an exam and the successful completion of an annotated bibliography. The bibliography is assessed for number of items identified, inclusion of a variety of sources (books, periodical articles and newspaper articles) and utilization of a variety of reference sources. If students do not pass the exam or prepare an acceptable bibliography, they do not pass the course. At this time the course is not a university requirement, but open-admissions students are strongly advised to take the course, and a number of other freshmen now elect to take it.

At Findlay College, an 1100-student, private college in Findlay, Ohio, library skills have been an integral part of a basic skills competency program since 1975. The requirements of the program are that all students demonstrate competency in reading, writing and library skills/information retrieval prior to attaining junior-level status. The library skills component, developed by the library staff, specifies three competencies: use of the card catalog to retrieve books and other materials; use of periodical indexes and abstracts; and use of basic reference sources. Students may demonstrate the achievement of the library skills competencies in one of three ways. The first is successful completion of a research project in a six-credit "Freshman Seminar." The project is designed by library staff who teach one or two sessions in the course and who also assess student performance on the project. The project requires students to locate information on a specified topic in books, periodical articles and newspapers. An alternative to this approach is submitting a bibliography or research paper which is assessed by a librarian. The third alternative for demonstrating the library skills competencies is scoring 90 percent or better on a written test developed by the library staff.

Of the libraries involved in competency-based instruction, the one with the most comprehensive program can be found at the University of
Wisconsin-Parkside, a midsized, 5400-student commuter campus located in Kenosha, Wisconsin. This library is involved in teaching students competency-based library skills in the university-wide Collegiate Skills Program and in research courses offered by the history, political science, business, sociology, and geography disciplines.

The Collegiate Skills Program, implemented in fall 1977, requires all students to demonstrate minimum competencies (specified as Level I competencies) in reading, writing, mathematics, library research skills, and writing a library research paper. If students do not complete all of the competencies by the end of their sophomore year (60 credits), they are dropped from the university. The competencies, arranged in three levels according to sophistication required, were developed by a committee composed of faculty members and a librarian. A goal, competencies and objectives were identified for each area. The goal identified for the library skills portion of the program is "the ability to use the appropriate resources and services of a university library to identify, select, and locate materials, both print and non-print, on a variety of subjects." This goal is broken down into the following competencies:

Level I: The ability to identify and use selected basic sources common to high school and public libraries.
Level II: The ability to identify and use the basic resources of an academic library-learning center with skill and sophistication.
Level III: The ability to identify and use the major reference tools, search strategies and research techniques common to a given field of study.

Each of these competencies has been further broken down into performance objectives which form the basis for student assessment and for the library instruction materials. Most students demonstrate the Level II library skills competencies by taking a written test. The test was developed by the library staff over a period of several years with the assistance of a campus psychology faculty member. Transfer students have the option of demonstrating library competencies by submitting a research paper. The librarian assesses the bibliography of the paper for appropriate use of library materials.

Instruction for Level II library skills is provided through a 12-chapter basic skills workbook which contains exercises that must be completed in the library. Most generally, the workbook is administered through a one-credit English course, "The Library Research Paper." The course is designed to help students learn the skills necessary to achieve both the research paper competency and the library skills com-
petency, and is team-taught by a librarian and a faculty member. Students may also choose to complete the workbook while enrolled in a literature survey course offered through the English discipline. Satisfactory completion of the basic workbook does not in itself constitute demonstration of the library skills competency, although to date all students who have done so have passed the library skills test.

Although Level III competencies have not been implemented as a required part of the Collegiate Skills Program, the library staff have implemented the Level III library competency and performance objectives in history, political science, business, sociology, and geography. In all but the business curriculum, the library skills are a required part of the three-credit research methods course offered by the discipline and team-taught with a librarian. In business, a separate one-credit elective course taught by librarians is devoted to library skills. Discipline-specific workbooks based on the performance objectives for Level III competency have been developed jointly by library staff and faculty. (The development of workbooks was considerably aided by a University of Wisconsin System Undergraduate Teaching Improvement Grant and by a College Library Program grant from the Council on Library Resources and the National Endowment for the Humanities.) To receive credit for the course, students must satisfactorily complete all of the assignments in the workbook and prepare a bibliography which is assessed as adequate by a librarian.

**Competency-Based Education and Library Instruction: Some Considerations**

There are many potential benefits that can be derived from adopting the competency-based approach to library instruction. Some of these accrue simply from the process required for developing the program. The need to identify and agree on competencies and performance objectives requires instruction librarians to enter into extensive consultation with faculty, students and other library staff. This consultation process should lead to a better understanding of which library skills are needed by students at the institution or in the specific program by all of the parties engaged in the discussions. It should also lead to the increased institutional acceptance of librarians in the teaching/learning process, to increased support for and commitment to library instruction among faculty, and to better-informed librarians concerning curriculum matters and the needs of faculty and students.

There are also benefits derived strictly from the specification of
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library skills competencies and performance objectives. One such benefit is the increased potential for the structuring of high-quality, relevant library learning experiences. A second benefit should be improved student performance, since students know exactly what is expected and therefore know what to concentrate on learning. Also, the librarian is better able to assess student achievement and prescribe, when needed, additional learning experiences in specific areas. Another benefit derived from the specification of competencies and performance objectives is the increased potential for conducting meaningful program evaluation. Library instruction programs, possibly even more than other academic instruction programs, face heavy pressure for demonstration of their effectiveness. Meaningful program evaluation is difficult, if not impossible, without objectives.

There are numerous other benefits to using the competency-based approach. Since assessment is criterion-referenced, students need only take part in the instructional program for those competencies which they cannot demonstrate. This frees the librarian to work with those students who need help most and should make more effective use of the librarian's time. This should also improve student motivation and attitudes. In addition, the competency-based approach is flexible in terms of the instructional methods and materials that can be used. The only requirement is that the methods and materials structure learning experiences that help the students achieve the competencies specified.

To highlight only the potential benefits of a competency-based approach to library instruction without pointing out some of the difficulties which can arise would not give a complete picture. The process of identifying and gaining agreement on competencies and performance objectives is arduous and time-consuming. It also takes a great deal of political skill and an understanding of the "politics" of higher education. Many faculty are not used to working with librarians in this manner, and few have a knowledge of or appreciation for performance objectives, let alone the ability to identify the library skills students should possess to perform assignments competently. The competency approach relies too heavily on faculty input and cooperation to be effective without heavy faculty commitment.

In addition, it is extremely difficult to structure and validate appropriate instructional assessment tools. Many librarians do not have the skills, or in some cases immediate access to those with the skills, to do so. Since assessment is especially critical in this approach, it may present greater problems than assessment in other approaches. Therefore, librarians using the approach will have to be patient and extremely
flexible. They will have to educate the faculty about the potential of the library, will probably need to reeducate themselves, and will have to build the program slowly. Obviously, the above considerations are important no matter what method is used for library instruction; however, they are especially so when utilizing the competency-based approach.

Is the competency-based approach worth the trouble? It depends on the institution, the library, the staff, and the students. It can be a very effective approach; it may also be too time-consuming and too demanding in terms of the need for faculty cooperation and acceptance, and of the skills required of the instruction librarian. Only after analyzing the environment at the institution can the library instruction staff make an informed decision.

References


3. Ibid.

4. Ibid.


7. Ibid., pp. 6-8.

8. Ibid., p. 9.


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11. For information about the Alverno program in general, see: Ewens, op. cit.; and Trivett, op. cit., pp. 33-37.

12. Trivett, op. cit., p. 35.


21. The library is involved in more than competency-based instruction. For information about the library instruction program generally, see: "Bibliographic Instruction Program," Kenosha, University of Wisconsin-Parkside, Library/Learning Center, 1976 (ED 126 957); "Bibliographic Instruction Program," Kenosha, University of Wisconsin-Parkside, Library/Learning Center, 1978 (ED 169 890); and Stoffle, Carla J. "Library Instruction: The University of Wisconsin-Parkside Experience." In Hannelore B. Rader, ed. Academic Library Instruction; Objectives, Programs, and Faculty Involvement (Library Orientation Series, no. 5). Ann Arbor, Mich., Pierian Press, 1975, pp. 27-44.


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Research Strategies: Bibliographic Instruction for Undergraduates

SHARON J. ROGERS

BIBLIOGRAPHIC INSTRUCTION LITERATURE is filled with discussions of all aspects of the questions surrounding the nature of education in research strategies. Controversy about theory and practice exists concerning what level of student should be taught, exactly what should be taught, what methods should be used, and who should do the teaching. In the following discussion of these issues, substantive examples will be presented from the social sciences, with the assumption that the social sciences illustrate problems similar to those arising in the humanities, the biological sciences, the natural sciences, and some professional fields.

From the outset, it is necessary to understand that there is no clearly defined concept of research strategies—or search strategies, the more commonly used designation. Generally, it is used to refer to some sort of systematic approach to information. That the term is loosely used is reflected in the fact that one author employs it in reference to a specific tool (as in directions to read introductory material for a volume or to examine the index), while another employs it in reference to an ordering of materials in the sequence of greatest perceived usefulness (as in the statement, "reference tools will be presented in search strategy order"). McInnis uses the term research strategies in a quite different

Sharon J. Rogers is Coordinator of Library Programs, Social Science Subject Specialist, and Adjunct Assistant Professor of Sociology at the University of Toledo.
way in his explication of "structured inquiry" (an approach to disciplinary literature based on knowledge of the substantive and bibliographic dimensions of scientific literature). In Lockwood's useful bibliography on library instruction, "search strategy" is a subdivision of "Teaching Specific Tools."

Level of Student

The audience for instruction in research strategies at the undergraduate level generally is considered to be upper-division students who have selected a disciplinary area of study. Werking articulated the reasons for this emphasis:

First, it is probably at this point in an undergraduate's education that she will develop most as an independent learner. Second, such instruction can do a great deal to show students the personal nature of the research process and help them see themselves as contributors to that process. Finally, instruction to subject majors is a good method of educating faculty about bibliographic techniques they may find useful, both for themselves and for their other students.

In a contrasting approach, Knapp utilized research work on student subcultures on college campuses to suggest that of the four groups Clark and Trow have distinguished (academic, nonconformist, collegiate, and vocational), nonconformists might be the subculture "worth court ing." Palmer outlines the fallacies of elementary, freshman-level library instruction, while other writers assume that basic library orientation has been provided at earlier stages of a student's academic career.

Clearly, selection of target audiences might depend on the meaning various writers attach to "search strategy." If it means an orderly exposure to a particular reference tool or a systematic search of reference sources, it might be appropriate to any level of instruction. If it means an inquiry technique that develops from exploration of the interconnections between the substantive and bibliographic characteristics of a discipline, it will be taught more appropriately at the upper-division levels.

Content of Instruction

The most interesting and crucial questions about search strategies surround the issue of what is to be taught. Two aspects of the problem will be explored: whether to teach sources or process, and whether to teach library models or disciplinary models of the literature.
The basic issues in the first question, whether to teach sources or process, were explored by Swift, Winn, and Bramer. They described a model which assumes that "what the document is 'about' is the basis of the search," and they point out that "aboutness" is the basis for the construction of many major reference tools. It forms the basis for the source-based approach. However, the authors went on to argue that research requirements in the social sciences demand a "multi-modal approach" in which there are many ways of categorizing documents besides by subject. They distinguished their proposed model from the "aboutness" model:

Whereas the "aboutness" model posits a process of matching documents and search requirements as the means by which searchers trace material that will help them, the logic of our argument suggests that searching in the social sciences must necessarily be an open-ended process....Our general conception is one of searchers differentially interacting with the documents in the system. This is in strong contrast to the relatively mechanical process of matching which is assumed by the "aboutness" approach.

Emphasis on teaching sources is intimately tied to the fact that most library instruction is necessarily offered by means of one-hour lectures and workbooks which are appropriate for traditionally structured curricula. Time is a particular constraint in course-related instruction, which is usually initiated by the invitation of a faculty member. It requires the librarian to use a limited period to address the specific needs of students in a course. Students are given exact information about sources they need to use to complete a course assignment. Kirk defined this technique as "the 'response' approach." In such a process, while students may be able to complete particular assignments, there is little indication that they will learn patterns which will be of use when they face another library information problem. Kirk described response instruction and then proceeded to explain the Earlham "bibliographic" approach. Earlham's pattern modifies the source approach by ordering the listing of sources into a systematic search process which leads the students from general background sources to bibliographies, the card catalog, and periodical indexes.

The workbook in library use instruction was first developed in the early 1970s at the University of California at Los Angeles and usually is based solely on the source approach. Evidence of a metamorphosis can be found in a few workbooks which include limited attention to the order in which information is presented and to the principles that may be applied to the process of searching for information. At the University...
of Wisconsin-Parkside, the workbook used to teach library skills to all students as a graduation requirement includes a final term paper assignment which is intended to assist the students in integrating the individual sources used in earlier exercises. Going beyond this and other such modifications, the workbook developed for use with the College of Education Bibliographic Instruction Project at the University of Toledo completely reverses the usual emphasis. It specifically attempts to teach the process of searching for information and uses exercises with particular sources as illustrations of the search process.

The search process used at the University of Toledo is similar to the generalized model provided by Benson and Maloney. Their model suggests "two 'givens'—a system and a query." The system is characterized by type (single tool, collection, or network), language or vocabulary, and limitations of the system. A query may be for a known item or a subject and is also characterized by language or vocabulary constraints and preferred limitations. The search process provides a "bibliographic bridge" between the query and the system, and includes the following steps:

1. Clarify the question (the interview).
2. Establish search parameters based on the interview.
3. Identify system(s) to be searched.
4. Translate (index) the query in the language of the system.
5. Conduct the search.
6. Deliver the information.

While the Benson and Maloney discussion centered on the search process as part of reference delivery, the University of Toledo workbook places the student in the position of specifying the question, limiting the search, translating the natural language of the question into the specialized language of the selected system, and completing the process.

Inherent in these attempts to blend sources and search process is this question: is it necessary specifically to teach students the process of searching for information, or will they learn it implicitly through a patterned introduction to sources? The answer from the disciplinary departments is a resounding "no" on both sources and process, judging by the relative paucity of articles about bibliographic instruction appearing in the disciplinary literature sources listed in the Lockwood bibliography. Additional evidence from an informal survey of teaching materials in sociology reveals the occasional reference to library sources, but never to the process of searching for information, and instruction in library use is not mentioned. The strongest answer to
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the question emerges from the challenging intellectual presentations by Knapp, Freides and McInnis, with echoes from other writers.20 These authors affirmed that students must be specifically taught the substantive and bibliographic structures of a discipline, and from that knowledge, appropriate processes for searching for information in a discipline may be fashioned. Knapp, based on her experience at Monteith College, suggested "that high-level library competence calls upon a wide range of knowledge and skills.... This level of competence is not just 'picked up' by the bright student. It must be taught."21

Knapp, Freides and McInnis each hypothesized the mating of a discipline's bibliographic structure and substance in different ways. Knapp perceived bibliographic organization as a system of "ways" related to the process of searching:

The term "way" in the sense of "method" implies knowledge and understanding of the interlocking organization of the library and scholarly communication.... Knowing the way to use the library .... means, on the one hand, understanding that the nature and degree of bibliographic control characteristic of any discipline is likely to depend on the maturity of the discipline, the extent to which its work is cumulative, the economic support society is willing to give it, the social structure in which its practitioners work. It means appreciating, on the other hand, that there are communication needs and purposes common to all disciplines. It means knowing and being able to use the tools of scholarly communication, the tools of library organization, and the tools which connect the two.22

Further, Knapp was convinced "of the feasibility of illustrating the same key concepts and processes with a variety of experiences and materials," if "concepts and processes [are emphasized] rather than specific library tools."23

Freides suggested that "the bibliographic tools of scholarship may be viewed as comprising a system whose structure and organization parallels that of the scholarly literature."24 She referred to "literature searching as tuning in" to this system so that the student can experience an approach which combines the processes of learning about a subject with the process of searching.25

McInnis has presented by far the most comprehensive and complex description of the "social-scientific literature...[which] comprises two main structural components: substantive structure and bibliographic structure. In retrieval, researchers seek either substantive or bibliographic portions of these structures, or some combination of both, associated with a given field of inquiry."26 McInnis further elaborated the specific role of reference works within the "substantive-bibliographic continuum":

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By depicting reference materials simultaneously as functional necessities and as artificial constructs designed to order scientific literature in logical, coherent arrangements, the cognitive function of reference materials becomes more apparent. That is, by setting forth these relationships in a perspective that demonstrates concretely what is unconscious, or at best, only vaguely perceived, the function and structure of reference materials come to be viewed as keys to more explicit and direct modes of thought and action in developing research strategies.27

McInnis suggested that “by employing such a perspective in library instruction programs, reference works will be more deeply embedded in the epistemological foundations of the literature to which they are related....Literature searching will be made an intrinsic part of inquiry and will not be regarded as an extraneous task.”28

As indicated above, in addition to the question of whether to teach sources or process, a second “content of instruction” issue addresses whether to teach library models or disciplinary models of the literature. Library models of the literature are based on individual reference tools which are developed on an ad hoc basis in response to particular needs. McInnis echoed Freides in suggesting that: “not occasionally chaotic, unpremeditated policies and whimsy are responsible [for the production of reference books]. Reference librarians often find that sources providing substantive or bibliographic information are fragmented and give uneven coverage of a given field.”29 Therefore, if instruction provided to the user is based on the library organization of literature in a particular field, the users “frequently discover obvious gaps in the array of reference works in an area of inquiry,” leading to uncertainty and frustration.30

On the other hand, since the inception of citation indexes, it is possible for the student to mimic the inquiry style of practitioners in a discipline. Typically, practitioners “1) locate a few key works, perhaps a specialized bibliography, and certainly a review article if at all possible; 2) find other works cited in footnotes and bibliographies, and put together a core bibliography; 3) use citation indexes to update the bibliography; 4) consult recent issues of the most relevant journals, using either the journals themselves or Current Contents; 5) consult Forthcoming Books.”31 Reference tools become important adjuncts to the search process, but the logical thread of the search is maintained within the substantive structure of the discipline. The user perceives the integration of substantive sources and bibliographic sources and the mutually supporting disciplinary and library systems.

The issue of the library literature model versus the disciplinary
literature model does not revolve around merely a matter of preferences. Kaplan’s seminal discussion of the research process distinguished “logic-in-use” and “reconstructed logic.”32 “Logic-in-use” describes the pattern of thought that informs the actual research process, while “reconstructed logic” conveys the revised logical sequence. The literature search sections of research reports always present reconstructed logic, thereby providing an idealized picture of the logical pattern of the search process. Since reference tools are themselves products of the process of reconstructed logic, it is not surprising that dependence on them by librarians who teach the research process causes some estrangement from the teaching faculty, who in their classes and personal research follow the pattern of logic-in-use. Kaplan suggested that “a great deal hinges on whether science is viewed as a body of propositions or as the enterprise in which they are generated, as product or as process.”33 This suggests the idea that the traditional library model based on a process of reconstructed logic is appropriate for viewing science as product; however, a different library model based on logic-in-use is appropriate if science is viewed as process. He further explained that: “the great danger in confusing the logic-in-use with a particular reconstructed logic, and especially a highly idealized one, is that thereby the autonomy of science is subtly subverted. The normative force of the logic has the effect, not necessarily of improving the logic-in-use, but only of bringing it into closer conformity with the imposed reconstruction.”34 From a disciplinary perspective, to achieve intellectual compatibility and efficiency, search strategies can and should be isomorphic by grounding the process in logic-in-use, even though the actual content of materials retrieved in the search process is in the form of reconstructed logic.

More specifically, there are at least two reasons for resolving the tensions described above in process-oriented instruction which utilizes a disciplinary literature model. First, the model selected for instruction may be related to the ultimate success of the instruction, both in terms of motivation to learn and in retention of knowledge. If instruction is offered when students have made a decision to study a particular subject matter, and if bibliographic instruction can both mirror and extend the research process as taught in the classroom, motivation to deal with library instruction should be increased.35 Furthermore, teaching a general conceptual framework may increase the likelihood of retention of knowledge, as well as increase the transferability of knowledge. For instance, Smalley outlined Jerome Bruner’s description of the learning process and concluded that “retention of information, transferability of
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what has been learned to new situations, and evaluative skills, all flow from conceptual mastery of underlying principles.  

A second reason for encouraging process-oriented instruction involves the fact that the profession is just beginning to discuss the implications of on-line search services for assisting an ever-expanding body of users as they tackle myriad projects. This will extend, eventually, to concern over ways in which data base searching can be logically incorporated into instruction in search strategy. If a source-oriented approach continues to dominate the field, data bases will become simply another source, or duplicates of existing sources, only distinguished by unusual format and cost. On the other hand, if an approach based on both the process of searching for information and the substantive and bibliographic structure of literature is developed, data base searching may be more logically incorporated into bibliographic instruction. For example, the computerized query analysis system at the University of Denver is designed for sociology students who have little knowledge of the library. The system is intended to: "provide linkages among the language of the student, the conceptual terminology of sociology, and the classification descriptors used by reference librarians and professional indexers and abstractors. Students are thereby aided in focusing their research questions and in identifying appropriate library reference tools." This system is a mechanical means of achieving two steps in the search process: translation from natural to technical language, and identification of the system to be searched. In addition, it allows the student to use logic-in-use as the searching strategy.

Methods Used to Teach

In the bibliographic instruction literature, attention to methods has focused on "how-to-do-it" exchanges. Earlier in this paper it was noted that time constraints, rather than the nature of the material to be taught, have largely dictated the choice of teaching method. Smalley noted Henning's 1971 comment on the lack of "general principles of library instruction" and Farber's 1974 observation of the lack of "agreement on the educational theory behind library instruction." Smalley highlighted the importance of working toward such development of theory:

An understanding of principles and methodology would set the intellectual structure within which we could begin to think about generating effective and creative instructional programs. Full and probing discussion of the bases on which we build these programs would yield
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a context for exchanging information about specific programs we have individually developed. In sum, if we are to be taken seriously as teachers, then we must ourselves take seriously the process of teaching.\footnote{42}

Certainly, attention to the teaching process and to complex searching patterns and literature structures will ultimately require additional instructional time. This may lead to more efforts to implement curriculum-based rather than course-based library instructional programs, and it may well enhance the rationale for separate credit courses in bibliographic instruction. A movement toward curriculum-based programs may be congruent with other current developments and theoretical proposals in higher education. For example, the increased attention to general educational needs has been marked by several programs with new, wider curricular orientations, and the administrative reorganization of college and university structures into larger groupings of academic disciplines has been proposed.\footnote{43}

The products of the instructional experience will likely change as teaching content changes. Such changes would be supported, if not initiated, by faculty who have long lamented the limitations of the classic term paper. For example, various techniques for displaying the information the student gathers about the structure of a discipline have been developed\footnote{44} and may only need imaginative refinement for general instructional use. While such change will occur, certainly it is unlikely that standbys like printed guides will disappear. To support the "structured inquiry" approach he advocates, McInnis provided extensive samples of printed guides that support instruction in the technique.\footnote{45}

Who Should Teach

Any discussion about who should assume the instructional role in bibliographic instruction must be informed by the decisions about what is to be taught. By the conventional standards of the literature model based on library sources, user study after user study has demonstrated the teaching faculty's general incompetence to use the library.\footnote{46} On the other hand, no study documents librarians' abilities to use or explicate search patterns that find favor with the disciplinary practitioners. In other words, librarians may be very competent to teach a library model of literature which may not be in favor with the faculty, and faculty may be very competent to teach logic-in-use strategies which appear hopelessly unsystematic to librarians. This is not to say that historians, philosophers, biologists, and sociologists have not been found who will
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speak to bibliographic instruction librarians and encourage them in their selected tasks.\(^47\) Certainly, there is agreement that the American professoriate is no more imbued with theoretical knowledge of the teaching process than is the American library profession.\(^48\)

Within the library profession itself, there is considerable uncertainty about who should assume the instructional task. Katz, Schiller and Wilson have all articulated opposition to the notion of the librarian-teacher.\(^49\) Wilson suggested that the concept of the librarian as teacher is an "organization fiction" that creates an inconsistent professional identity.\(^50\) On the other hand, Michalak suggested quite the opposite in claiming that "librarians can best perform the instruction function in coordination with academic departments by the development of formal courses of instruction in the bibliographical and research resources of a specific discipline."\(^51\) The librarians to which Michalak referred are subject specialists who act as liaisons between academic departments and the library. It is clear that the general literature of bibliographic instruction reflects the willingness of an increasing cadre of librarians to assume responsibility for library instruction. However, it is important to realize that the persistence of source-oriented, library-model instruction as taught by some library faculty reflects their academic backgrounds, and suggests that significant resistance to change in the conception of both what is to be taught and who should teach may well come from the librarians themselves. This is not to say that the academic background of librarians is inadequate for the task, but rather that the success of the instructional process may require translation of knowledge from the academic library experience into the conceptual frameworks and habits of users. If this translation occurs, there may be no debate about who will assume responsibility for library instruction in the research process.

Conclusion

Successful education of undergraduates in research strategies hinges primarily on the decision about what is to be taught. The questions of what level of student should be taught, what methods should be used, and who should do the teaching, while not unimportant, are at this stage of secondary concern. The primacy of the "what is to be taught" issue has been illustrated by McInnis, who said: "This increasing stress on the bibliographical aspects of scientific literature in instruction is in obvious contrast to students' inability to make effective use of library materials. This issue, of course, will not easily be resolved.
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An approach to instruction in research strategy which emphasizes the epistemological components of scientific literature holds much promise as a means of resolving this predicament.  

The history of American higher education teaches that change in academe occurs slowly, if at all. Therefore, hopes for quick, meaningful recognition of the "information explosion" and the necessity for concomitant change in research strategies may well be frustrated. However, those involved in bibliographic instruction must persevere and continue to work with disciplinary faculty in developing research strategies which will best serve the students.

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Individualized Approach to Learning Library Skills

MIGNON ADAMS

During the last fifteen years, academic librarians have become conscious of the fact that many library users (and potential users) do not know how to use libraries effectively. As a result, a whole new movement concerned with bibliographic instruction has arisen. Many attempts to teach basic library skills have utilized methods of large group instruction—the "library tour," general orientations, and the like. By and large, librarians have found these attempts to be unsatisfactory; students tend to be unmotivated, they forget important skills by the time they need them, or, in any given group of students, the level of library sophistication varies widely. Many librarians have turned from large-group presentations to methods which promise to meet the needs of individuals.

Of course, libraries have a long history of working with people as individuals. Traditional reference service is built upon the notion of responding to individual needs; good reference librarians have always tried to teach the user in the process of answering his or her question, so that the user learns basic skills that may be utilized for the next problem. If there were enough reference librarians always available, and if patrons always asked for their help, there would probably be no need for other forms of individualized instruction. However, because reference librarians cannot be everywhere they are needed, and because much of

Mignon Adams is Coordinator of Library Instruction, Penfield Library, State University of New York at Oswego.
such instruction is repetitious and can be taught more efficiently in other ways, a number of other individualized approaches have been used in libraries.

Approaches that have been used are largely adaptations of methods developed and used in education. "Individualized instruction" became popular during the early 1960s, probably because, as Cross points out, the more heterogeneous the group, the more necessity there is to individualize; if the members of a group all have the same needs and are at the same level, then the group can all learn the same material at the same rate. Like most teachers now, however, librarians must work with students who come to them with skills ranging from almost nonexistent to quite sophisticated. To avoid losing some students and boring others, librarians must consider individualization.

To many people, the term individualized instruction is synonymous with programmed instruction. However, according to Bolvin and Glaser, individualization is any instruction that is adapted to individualized needs, including small group instruction, teaching machines, programmed instruction, tutoring, project work, and independent study. Ways of individualizing the instruction may range from presenting the same material but at differing rates, to using the same materials but varying the type of presentation according to the personal or social styles of the student, to using materials and objectives chosen to match the student.

Obviously, then, individualized approaches may take many forms. It may help to think of approaches on a continuum, from a noncontrolled and nonstructured format to a controlled and structured one. Independent study might constitute one end of such a continuum, and traditional classroom teaching the other (see table 1).

Like methods used in education, the types of individualized approaches used in libraries can also be arranged in a continuum, from nonstructured and noncontrolled formats to structured and controlled. By doing so, one realizes that many activities which librarians have traditionally carried out (preparation of guides, providing reference service) are indeed forms of individual instruction; and some activities which are often thought of as "completely individualized" (for example, programmed instruction) are considerably less student-controlled than one might otherwise think. This paper, then, will be concerned primarily with examining those activities which are currently being used in libraries and which might be classified as individualized approaches. The activities will be organized along the same continuum, from least structured and most student-controlled to most structured
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and librarian-controlled. (This is not to say that the less structured the better; each approach has its own advantages and applications.)

TABLE 1. LEARNING CONTINUUM

<table>
<thead>
<tr>
<th>Type</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent study</td>
<td>Nonstructured, noncontrolled Student chooses what to study and how information or skills are to be acquired. Student has control over topic, rate of learning, method of learning.</td>
</tr>
<tr>
<td>Small group</td>
<td>Grouped according to skills or interests, students choose their course of study and may be responsible for content and method.</td>
</tr>
<tr>
<td>Programmed instruction</td>
<td>Student has no choice of materials, but may proceed at own rate; in some instances, student may skip parts that he or she has mastery of.</td>
</tr>
<tr>
<td>Traditional classroom</td>
<td>All students are given the same materials; the teacher has control over content, method and rate.</td>
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</tbody>
</table>

Structured, controlled

Signs

While signs are certainly not new in libraries, it is only recently that they and other large graphics have been considered a teaching tool. Articles on library graphics are included in bibliographies of library instruction, and they are also listed under the subject heading “Instruction in the Use of Libraries” in Library Literature.

How do signs instruct? One obvious example is that large well-designed graphics indicate locations for users; certainly a reference librarian’s time can be better spent than in pointing to rest room doors twenty times a day. However, signs can have other uses. An information center near the front of the library, which includes a floor plan and basic information for locating books and journals, helps to orient a user to the basic organization of the library, and can indicate a logical flow for locating information. A description of a whole system can be found in Library Guiding by R.J.P. Carey. A more recent publication, by Pollet and Haskell, is Sign Systems for Libraries: Solving the Wayfinding Problem.
Adequate signs in a library give users a sense of assurance in being able to locate materials which they already know how to use, or make them aware of materials of which they previously had no knowledge. Almost everyone would prefer to be able to find his or her way around a place without having to ask questions continually. However, signs by themselves cannot give all the information needed by an independent user.

Guides and Handbooks

Handbooks are also not new in libraries. Like signs, a handbook can serve to orient a user to a particular library and to its services. In practice, handbooks are often much too long. Like the library tour, they tend to overwhelm the user with more information than is needed (or can be absorbed) at a first introduction. A 30- or 40-page handbook that attempts to answer every question which might be asked is probably never read. A brief, concisely written handbook ought to give the reader a quick overview with a little more information than could be obtained from a sign system.

More recently, guides which are aimed at a particular need have appeared. On display in a library may be a series of guides, aimed perhaps at particular tools (e.g., “Using Periodical Indexes” or “Finding Government Documents”) or at disciplines (e.g., “Psychology: A Guide to the Sources” or “Zoology: Formulating a Search Strategy”). Sometimes the guides are actually lengthy bibliographies, which may be useful; but a guide fills more of a teaching role if it attempts to organize an approach to a type of literature or to a discipline, that is, if it says to the user, “this is the approach that should be used when investigating a problem in sociology,” for example, and then demonstrates it. The user than can apply this approach in future research. The LOEX (Library Orientation/Instruction Exchange) clearinghouse at Eastern Michigan University has a number of excellent examples of such guides prepared by many different libraries.

A more specific type of guide is that called the “Pathfinder.” Originally developed by Project Intrex at the Massachusetts Institute of Technology, the Pathfinder “functions as a step-by-step instructional tool which introduces a library user to the variety of information sources available in research libraries....Pathfinders are aids for the first three to five hours of literature searching.” Pathfinders take a topic, such as one which might be suitable for a research paper (e.g., “Sedimentation as a Wastewater Treatment”), define it, and give citations to specific intro-
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ductions, books and articles, as well as listing appropriate subject headings. Pathfinders are invaluable aids for topics that many students research, because they save a librarian from going through the same explanations over and over, and allow the student to proceed independently. However, Pathfinders also take a large amount of time to prepare. Librarians ought to devote the necessary time only to topics in which there is enormous current interest. Pathfinders have been available commercially from Addison-Wesley, but the librarian is then faced with the task of making them fit a particular library and seeing that students can find them when they are needed.

There is, of course, no requirement that a guide appear in print format. One widely used approach is to produce a self-guided tour on audiotape, which allows the student to walk around the library accompanied by a friendly voice. Audiotapes are inexpensive, easily updated, and appealing to a generation oriented to sound and earphones. Yet another popular approach is to produce what is called “point-of-use” instruction. These are modules (nearly always in some audiovisual format) which explain to a student how to use a particular tool and are located near that tool. A student may pick up a telephone and receive instructions for using the card catalog; sit down at a carousel projector and view a slide-tape presentation on Chemical Abstracts; or look at a diagram which explains a citation index. Typically locally produced, such presentations may be surprisingly expensive in terms of time needed for production, initial cost of the equipment, and maintenance. The library which plans to implement point-of-use instruction should begin on a small scale, developing one or two modules, and evaluate carefully the amount of use the programs receive in comparison to the expense involved.

All of the guides discussed in this section have one characteristic in common: they allow the student to have control. He or she selects only those items needed, decides how much information is wanted, and proceeds independently. Providing it has motivated patrons who want and are capable of independent work, the library which develops a comprehensive system of guides at various levels of sophistication may find that it has met most individual needs. However, for many students more structured approaches may be needed.

Tutorials

As discussed earlier, reference librarians have traditionally worked with patrons individually, and have often used the reference contact to teach library skills. However, the patron may approach the desk at a
busy time, or the particular librarian may not have sufficient subject area background to fill the patron's needs. To alleviate these problems, many libraries have adopted a reference tutorial service. At SUNY-Oswego, this service is called PLUS (Personalized Library User Service). A student makes an appointment two days in advance, filling out a brief form which explains his or her topic. A librarian with some subject background does some preliminary searching before meeting with the student for about one-half hour to outline a search strategy and explain the use of necessary tools. PLUS at Oswego usually handles about fifty appointments per semester, and has had highly favorable student responses without placing an undue burden on the staff (generally because the assigned librarian is already familiar with the subject area.) Similar services are offered at libraries around the country.

Students like such services because through them they receive a great deal of information at a time when they need it. To make the sessions teaching situations, however, librarians must be careful that they are not just handing out information, but are demonstrating a method which may be used by the student in the future. Since they are dealing with highly motivated students on an individual basis, chances for successful and meaningful teaching are high.

Programmed Instruction

Programmed instruction (PI) as it was developing in the early 1960s was acclaimed as a panacea by educators.6 Programmed instruction, it was felt, could take on most of the actual teaching, leaving teachers free to work with students who needed extra attention. Fifteen years later, educators view PI somewhat differently. It is generally believed that while PI can teach facts and skills rather quickly, the rate of learning is often the only thing under the control of the learner, and many programs are recognized as boring and meaningless. Programmed instruction is still around, but it is no longer seen as a reasonable substitute for the teacher.

Libraries have used PI almost from its beginnings; one bibliography on the topic is subtitled "A Classified Bibliography of Programmed Texts and Other Materials, 1960-1974."7 An early study by Wendt on the possibility of using teaching machines to instruct freshmen in the use of a university library was published in 1963.8 There are a large number of packages and modules of programmed instruction for libraries, and many of these can be found quickly in the ERIC document collection.
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However, it is in the form of workbooks that programmed instruction has been most widely used in libraries. Workbooks meet the definition of programmed instruction by presenting a series of questions, usually accompanied by short descriptive materials, that students work through at their own pace. One of the best-known examples was developed by Miriam Dudley and her staff at the College Library of UCLA. Begun in the early 1970s and now in its third edition, it has been used in more than 100 colleges and universities. The program consists of twenty segments directing the student to locate certain tools in the library and to use them to find answers to questions. There are 100 different sets of questions; therefore, there is little likelihood of any two students discovering that they have the same questions.

While the workbook can be used as a course in itself, it has most often been used as a section or requirement of another course, such as freshman composition. Its effectiveness in teaching many library skills is acknowledged in a well-written article describing its use at the University of Arizona. Similarly planned workbooks in subject areas (history, political science, etc.) are being published by The Library-works in their “Materials & Methods” series.

The use of such a workbooks offers a far better alternative to tours designed to reach large numbers. Students are directed by the workbooks through the library and are encouraged to use the materials discussed. Given the number of librarians and funds available for teaching, there is probably no sounder way to reach large numbers of students with assurance that they will actually participate in the learning experience. However, like much of programmed instruction, the workbooks do not allow for differences in level of student ability; they do not allow students to follow their own interests, and must often depend on the motivation of course requirements to ensure their completion.

Another form of workbook allows for student choice of topic. The student is given information on a generic type of tool—periodical indexes, for example—and, using his or her own topic, is asked to locate a pertinent index and find information relevant to the topic. This approach is often used in library courses taught for credit, such as the one taught since 1973 at SUNY College of Environmental Sciences and Forestry. The end result of the student’s activity usually is a bibliography on the chosen topic.

Allowing students to pursue their own topics usually results in greater student interest and motivation. Often the topic is one which the student is researching for another course, which results in the library skills being viewed as a means to an end, rather than as a meaningless
exercise. Finally, since the choice of topics is almost infinite, the chances are very small that students will copy the work of others.

There are, however, some disadvantages to this approach. There is less teacher control over the learning situation, so that some materials may not be completely covered. With the possibility that every student may be using a different tool, the nuances and quirks of one particular tool may not be completely explored. Some topics may not be suitable for some generic tools. (Imagine a student attempting to research Debussy in government documents.) Finally, correcting these workbooks is a more arduous task than dealing with those having only one correct answer. Student enthusiasm for this approach may well overcome the disadvantages, but the librarian contemplating the use of workbooks in which students choose their own topics must be aware that there is probably a limited number of students who can be dealt with in any one period of time.

There are other forms of programmed instruction used in libraries. Some of these are part of learning packages (which will be discussed later). Others are printed programmed instruction, such as the self-study book by Lolley. First published in 1974, it is still in print and presumably being used five years later.¹²

Computer-Assisted Instruction

Like programmed instruction (to which it is closely related), computer-assisted instruction (CAI) had an enormous boom in the 1960s. With the help of federal funding, numerous projects were started. As funding ceased in the early 1970s, so did most of the projects.¹³ However, some projects are still going on, both in education at large and in libraries.

Computers may be used for instruction in several different ways. A program which differs little from printed programmed instruction may simply be put on a computer. The student is given a small amount of information, responds, is told if the response is correct, and moves on. Such an application of CAI has only a few advantages over a printed format (and, of course, costs much more). Students generally enjoy the interaction with the terminal. There is little possibility of cheating, scoring is done, and statistics are gathered automatically. With a little more ingenuity, branching programs can be added. Based on response, the student can be directed to a subprogram, thereby not only moving at his or her own rate, but also receiving more or less instruction according to need.
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More imaginative programs have been developed which rely on the simulation capabilities of a computer. Medical students have been taught diagnosis using a hypothetical patient with certain symptoms; the student diagnoses the problem and prescribes a course of treatment. If a fatal mistake is made, the patient is, after all, only hypothetical. On the PLATO system, developed at the University of Illinois, elementary school students can learn fractions by following recipes to create monsters (if the fractions are accurate, a picture of a monster appears on the screen). Education majors can simulate a first year of teaching. Given a principal with unknown characteristics, the students make a series of decisions and find out at the end of a hypothetical year whether they are fired, retained or promoted. Such creative applications of CAI carry their own motivation. Students learn almost despite themselves.

While there have been a number of uses of CAI in library instruction, they have not been unusually imaginative. Entire courses in library use have been taught by computer, as was done in the early study by Axen. Computer terminals have been placed in library lobbies, such as at the University of Denver, where students may work through a program of orientation or learn how to use particular tools. Programs concerned with subject areas have been developed, such as a recent one for biology students at the University of Illinois. More imaginative approaches have been used to teach library school students—for example, simulating a reference interview.

CAI may have much to contribute to library instruction, but at present, the cost of developing course materials and obtaining terminals means that applications are limited. The availability of minicomputers may be of some future help. Also, some interesting programs may be developed at centers where extensive CAI research is still being conducted and where there are also librarians interested in instruction. (The University of Illinois has both the PLATO program and active bibliographic instruction librarians.)

Other Approaches

Other ways of individualizing library instruction have been used. One such use is the development of learning packages, where a set of materials is gathered together for a student and an instructional experience is planned, usually following the idea of behavioral objectives. The traveling workshops experiment in Great Britain involves a package which includes student handbooks, exercises, posters, slide-tapes, and audiotapes. A package for learning about the card catalog might
consist of a slide-tape presentation, a catalog card drawer with sample cards, and an answer sheet for questions posed by the tape. A package on locating periodicals might include an audiotape, a sample index and a copy of a periodicals holdings list, and may finish by asking the student to locate an actual periodical in the library. Such packages are interesting for students because they offer a variety of media and call for student interaction. Certainly they are more interesting than a print program which asks a student to sit down while responding to a series of questions. Also, packages like these are useful when it is necessary to instruct very large groups of students. Regular library materials receive less wear and tear, and trampling hordes of students do not interfere with the work of other patrons. The major disadvantage is that students probably learn better by manipulating the actual materials than by using simulations, no matter how attractively packaged. This drawback may be overcome by keeping the simulations as close as possible to the actual materials. An old paper copy of an index is better than a photocopied page, and a duplicate bound copy is even better.

Still another approach is to adopt the Keller plan (Personalized System of Instruction, or PSI) for library classes. Originally developed to teach psychology, PSI calls for giving students a set of objectives that must be accomplished by the end of the course, providing means to learn the objectives (these are usually readings, but may be lectures, small group discussions, learning packages, films, workbooks, or any combination), and allowing the student to proceed at his or her own rate in meeting the objectives. When the student feels ready to be tested, he or she comes to the instructor. Tests must be passed in order to receive credit for the course, and students may keep trying until they succeed.19

Many students like this approach because they take the responsibility for learning; it is up to them to determine how much of the materials will be learned. Students generally work much harder in a PSI course than in one which is traditional.

As may be imagined, the major problem with PSI is student procrastination. Many students are too immature to cope with so much responsibility. Instructors have dealt with this by refusing to give "Incompletes" and by encouraging clearly unsuitable students to drop the class.

At least one library credit course has been taught using PSI at the Technological Institute of Monterrey.20 The Keller plan can work well to individualize instruction for large classes, and it could also be used in a library segment of another course (for example, English composition).

Other ways of individualizing large classes could also be tried. The
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establishment of small groups arranged according to major or other interests is possible, as are courses offered as independent study.

Future for Individualized Approaches

During the 1980s, it is apparent that librarians will be dealing with a population that is more heterogeneous, not less. Students will be coming to libraries with even wider variations in ability, knowledge and library skills. Assuming that greater heterogeneity calls for more individualization, librarians should consider even more individualized approaches if they are to teach students how to use libraries well. Moreover, there is ample evidence to show that students can learn as well from alternate approaches as from those which are traditional.21

What kinds of individual instruction are likely to be used? Since budgets and personnel are likely to be reduced in the coming decade, economic factors will govern decisions.

Librarians looking for ways to reach students as individuals first ought to examine their libraries to ascertain how much can be done to make them self-teaching. The use of signs, guides and point-of-use materials can obviate much formal instruction by explaining the library’s organization, or by suggesting additional tools similar to ones patrons already know how to use. These factors will not, however, eliminate the need for more in-depth instruction.

At the present time, workbooks are the most inexpensive way of teaching large numbers of students in a structured manner. Not only are materials inexpensive, but students can be required to purchase them, if need be. If computer scoring is used, the time spent in grading can be drastically reduced. Learning packages can also be effective. Once the initial expense of equipment and materials is met, the costs of upkeep are low, and they can be administered with a relatively small amount of staff time. If computers and their software become less costly, there will probably be an increase in their use.

Many fine materials, ranging from worksheets to complex learning packages, already exist. Rather than each library attempting to develop its own materials in isolation, materials already in use should be refined and evaluated within the context of individual libraries. There is some indication that this is being done.
MIGNON ADAMS

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Reference Services as a Teaching Function

HANNELORE B. RADER

Since all functions of a library or information center should be viewed, in ultimate terms, as facilitating the transfer of information, the distinguishing feature of reference services is that it specifically ensures the optimum uses of information resources through substantive interaction with the users on direct and indirect levels.¹

REFERENCE SERVICE is normally perceived in three levels. First is the personal assistance to users with information needs. Second is the formal and informal library use instruction designed to provide users with guidance and direction in the pursuit of information. Third is the indirect reference service which provides the user with access to information and bibliographical sources through interlibrary loan and interagency cooperation.² These are the latest guidelines for reference services as developed by the Standards Committee of the American Library Association Reference and Adult Services Division. They include the teaching function as a major part of the total reference service.

Guidelines and/or definitions for reference services have been a topic for discussion at professional library meetings and in the library literature since the late nineteenth century, even though a reference theory seems to be still lacking, according to Wynar, Vavrek, Whittaker, and Rettig.³

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Hannelore B. Rader is Coordinator of the Education/Psychology Division, University Library, Eastern Michigan University, Ypsilanti.
Reference service deals with disseminating the function of libraries. It provides information seekers with direct, personal assistance which varies considerably in different types of libraries. The beginning of formalized reference service in American libraries parallels the organization of the American Library Association in 1876. It was related to the economic and social development in America at that time, which included the move from an agricultural to an urban economy, the beginning of public education and public libraries. The libraries' function was to be an educational one. In addition to collecting and storing books, libraries were to facilitate the use of books.

Through the efforts of Samuel S. Green at the first ALA conference in 1876, reference service became formalized for the first time. The need to instruct students, the active participation of the library in the educational process, the guidance of readers to elevate their reading tastes, and the provision of evidence to the community that the library performed a useful service were four emerging rationales for reference service, and they have remained to the present.

In 1915 William W. Bishop defined reference work as: "the service rendered by a librarian in aid of some sort of study....[It] is in aid of research, but it is not research itself." Wyer theorized in 1930 that reference work could be either "conservative," "moderate" or "liberal." Rothstein expanded Wyer's theory in 1960 by characterizing reference service as "‘minimum,’ ‘middling’ and ‘maximum.’" These approaches to reference service remain as we enter the 1980s. The conservative or minimum approach emphasized the teaching function of reference work by guiding the users toward the utilization of bibliographic sources in order to make them ultimately self-sufficient. This approach predominates in academic, school and public libraries. The liberal or maximum approach emphasizes the delivery of specific, relevant information to the user by the reference librarian. This approach is predominant in special libraries.

At present, reference service in libraries most often consists of a combination of these two approaches and usually includes the following three components: (1) library use instruction; (2) assistance in the identification, selection, and locating of library materials; and (3) provision of ready-reference information (e.g., facts, names, statistics). More elaborate services—manual and computerized literature searches, interlibrary loan, preparation of bibliographic guides and special index files, abstracting, and translating—may also be part of reference services offered at a given library.

It is apparent that even though the teaching function of reference
services has been a major component of library service since the development of American public and academic libraries began in the late 1880s, the arguments for and against this function have also been around since then. These arguments seem to have become more intensified recently for several reasons:

1. renewed and increased interest in library use instruction;  
2. faculty status for academic and school librarians;  
3. justification of library personnel budgets;  
4. computerization of libraries; and  
5. justification of librarianship as a profession.

The argument against the teaching function but in favor of the liberal/maximum approach of reference service has been presented eloquently by Rothstein. He wrote that librarians should conduct literature searches and validate information for the user because this would compare more closely with the functions of other professionals. Katz stated that the majority of reference librarians are failures as teachers, that reference work is too important to let users handle it themselves, that it is impossible to teach users how to find information in a short time, that most users are not interested in learning how to find their own information, and that librarians are vastly different from instructional faculty. Continuing the argument, Wilson claimed that the role of librarians as teachers is an organization fiction. Her major contention was that librarians are not professional teachers in the sense that school-teachers or college professors are, because they do not have the power of the classroom teacher to motivate students through rewards. She did state, however, that the role of the librarian is an “education role.”

Teaching on a One-to-One Basis at the Reference Desk

Reference librarians can assist patrons more effectively when they consciously cultivate a teacher role as opposed to acting more passively as information source.

This observation by Howell was based on a study of library patrons at the University of Kentucky, and summarizes the thinking of many reference librarians during the 1970s.

People come to the library because they need information; the library offers reference service to help users in their quest for information. The reference librarian interacts with the person who seeks information through various communication processes to satisfy the person’s information need. The reference librarian may cull the infor-
mation from a reference source and give it to the user. He or she may give the person one or more specific reference sources to obtain the information personally. Or, the reference librarian may teach the user the process of finding the needed information completely by himself or herself.

The reference librarian's choice of one of these three methods depends on many factors which must be assessed through a short communication process with the user. These factors include time constraints, personality, type of information needed, attitude, objectives of a particular library's services, etc. Whichever of the three methods the reference librarian decides to use, some type of guidance for the user takes place.

The librarian must assess the user's information need. This takes skill and guidance on the part of the reference librarian to ask the right questions and to stimulate the user's thinking in terms of what is wanted and how information is organized. After a user approaches the reference librarian with an unclear, unformalized and partially unknown request for information, the librarian's work in classifying and organizing the information request in the inquirer's mind is a very individualized and unique teaching process, and requires professional training in counseling and interviewing techniques. After the information request has been formulated in terms of possible available information sources, the reference librarian has to decide which of the three methods described earlier to follow:

1. If the librarian decides to cull the information from a particular source and present it to the user, he or she has become the evaluator and authority of the information and should at this point explain to the user some of the reasons why this particular information was chosen. Stating the rationale for the selected information to the user will be an instructional function of reference service.

2. Should the reference librarian decide to give the user one or more specific reference sources in which to find his or her own information, the teaching function is enlarged. The user should then be informed briefly about specific features of the sources, their merits, limitations, etc. Through such guidance by the reference librarian, the user will be able to select the type of information wanted.

3. The third method teaches the user how to find his or her own information. The reference librarian provides a brief search strategy in outline form to the user so that the information can be located as quickly and efficiently as possible. In the most advanced level, this instructional function may also include teaching the user to "acquire an appreciation of the interconnections between information struc-
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ture, reference source structure and retrieval method."\(^{15}\) This method is the most time-consuming and requires some monitoring of the user to make certain that the provided procedure is followed.

User Guides

Reference librarians further fulfill their teaching function by preparing guides for users in the form of good signage, printed guides to library services, point-of-use instruction, self-guided library tours, printed Pathfinders, or bibliographic guides to the subject literature. Since it is not always possible to interact with every library user because of staff shortages or user shyness, the user guides are a very important component of the reference service. It takes time, money, and design, writing and teaching skills on the part of the reference librarians to prepare these guides, but the effort is well worth it.

Good signage is essential for efficient library orientation with a minimum of personnel. Clear, readable and uniform signs which can be understood by any novice to the library world are a must, but are sadly lacking in most libraries. Renewed attention to this problem is evident in Pollet and Haskell's publication.\(^{16}\) Most importantly, when new signage is contemplated by reference librarians, user input should be obtained. It should also be noted that reference librarians are best suited to the task of designing library signage, because their constant interaction with users makes them aware of the types of signs needed, for what and where.

Printed guides to library services such as interlibrary loan, circulation, computer searching, photocopying, media production, and specialized collections, in the format of handbooks, notebooks or other handouts, are also essential for orienting the user to the library. Again, reference librarians are uniquely qualified to plan and produce these guides because they are aware of users' questions and can easily assess what type of information is needed. This does not mean that other library units, such as the graphics and media services, should not be involved, but the overall planning should be carried out by the reference librarians.

Point-of-use instruction is defined as "instructional media located with or adjacent to a research tool explaining its efficient use [which] may be print or non-print format or a combination of the two."\(^ {17}\) These should also be prepared by reference librarians for those reference sources used most frequently, and utilizing their experience in explaining these sources to users.
Self-guided library tours in print or media format will free reference librarians from the repetitiveness of the "library tour syndrome" and leave them more time for their teaching role. In order to prepare these self-guided tours, media services, speech departments and other sources of writing experts should be utilized to cooperate with the reference librarians. Even though the production of these tours requires time, money and periodical updating, the effort is worth it.

Printed Pathfinders and bibliographic guides to the subject literature can serve as teaching tools for individual users and groups, on their own or with guidance from a reference librarian. They are time-consuming to prepare. The cooperation of subject specialists in the preparation of these guides also is most important to ensure the best product possible. If these guides are available, the reference librarian can refer users to them and does not have to cover all of the information on an individual basis. These guides can also be used as outlines for any group instructional sessions.

In summary, the preparation of user guides by reference librarians qualifies as another teaching function. Like teachers preparing instructional materials for their students, librarians preparing these user guides must assess their users' needs and educational levels, know existing resources, and be familiar with teaching methodology. If reference librarians have not had previous teaching experience or education which qualifies them for the preparation of such instructional materials, they can cooperate with other educational experts in the institution, or obtain needed expertise through continuing education offerings.

Up to this point, discussion of the teaching function of reference services has been in terms of all types of libraries—public, special, school, and academic. However, this teaching function, as mentioned earlier, is intensified in school and academic libraries because of the educational objectives inherent in these environments.

School and Academic Libraries

Bibliographic instruction seems to have become an established feature of academic reference work, both in universities and colleges, and it should no longer be necessary to prove that it is something worth doing.18

There has been an increased emphasis on library use instruction as part of reference services during the last ten years. Also, tremendous progress has been made to bring the concern with library use instruction
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to the attention of the profession through its organizations, the American Library Association and the Association of College and Research Libraries. Guidelines for bibliographic instruction have been approved, a new Bibliographic Instruction Section and a new Library Instruction Round Table have been formed, yet the arguments for and against the value of instructing users continue.19

In school and academic libraries where librarians often have faculty status and are encouraged to participate in the educational process through involvement in curriculum development, committee work and team teaching, reference service fulfills its teaching function. In addition to their one-to-one teaching at the reference desk, reference librarians often teach credit/noncredit courses on library skills; team-teach research methods courses in subject areas; offer seminars and workshops for students, faculty or administrators; and provide assignment-related/course-related library instruction to many different classes.

Of course, not all reference librarians become as deeply involved in the teaching process as described here. Instead, the services provided by reference librarians vary greatly, based on their library's and their own professional objectives. Some reference librarians may emphasize the teaching function of reference work; others, the function of providing information. This is unfortunate, because such variance will ultimately confuse the users as to what to expect from reference services. This, in turn, will complicate the communication process between user and reference librarian, and may also lead to increased hesitancy on the part of the user to ask for assistance from the reference librarian. Such complications can be avoided if reference librarians exhibit consistent behavior in their dealings with users and follow clearly stated objectives for reference service.

Implications for the 1980s

There is no doubt that the arguments within the library profession as to whether or not reference work should stress the teaching function will remain strong. New developments in the library field which will confront librarians in the 1980s, such as computerized literature searching, the revised version of Anglo-American Cataloging Rules, and the closing of card catalogs, will make it mandatory for reference librarians to teach users how to cope with these developments in order to obtain information. With decreasing budgets for libraries and increasing rates of inflation a reality of the 1980s, librarians, especially those in reference services, will be faced with justifying their functions and will be held
increasingly accountable for the quality of their services. Perhaps a suitable response to these issues is for the library to become a "teaching library" as defined by Guskin, et al.20 Such a library becomes directly involved in implementing the mission of educating the public through increased teaching and community outreach activities. In this type of library, the teaching function of reference service becomes the most important and most highly developed component of the library's services. Careful planning and close cooperation with all users to be served are mandatory. Only through hard work, determination and carefully planned changes can such a "teaching library" evolve. It will be interesting to watch how many libraries will accept the challenge of becoming a "teaching library" in the next decade.

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2. Ibid., pp. 275-76.
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19. See, for example, Schiller, Anita R. "Reference Service: Instruction or Information." Library Quarterly 35:52-60, Jan. 1965.

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Training and Education of Library Instruction Librarians

SHARON ANNE HOGAN

From the moment of rebirth of the bibliographic instruction (BI) movement in 1967, practicing librarians have voiced a persistent, indeed almost fervent, need for specialized education and training. The response by the library profession to this perceived need has been twofold: first, a dynamic and expanding program of continuing education by and for the practicing professional, and second, a campaign by those same professionals to incorporate training for bibliographic instruction into the curricula of the library schools.

The thrust of the BI education effort over the past decade has been in the area of continuing education, as evidenced by an ever-increasing number of programs, conferences and workshops devoted exclusively to bibliographic instruction. The efforts have been reinforced by other responses as well: library association committees devoted solely to education; clearinghouses established to exchange materials and ideas; continuing education seminars offered by library schools; a wealth of writing and publishing on techniques, methodology and local implementation; and most recently, a move toward in-service training programs by individual libraries. It is a remarkable history, one that could not have been written without the determination of countless individual librarians to equip themselves and others with the skills necessary to plan and implement a program of bibliographic instruction. It was

Sharon Anne Hogan is Assistant to the Director, University of Michigan Library, Ann Arbor.
Convinced that bibliographic instruction should be a component of public services, frustrated at having to implement instruction programs with no prior training, and incredulous that new library school graduates continued to lack skills in or even knowledge of bibliographic instruction, practicing librarians gradually began to pressure library schools to include instruction as a topic in the curriculum. Surveys of library schools, a conference devoted to the place of library instruction in the MLS curriculum, proposals in the literature for the adoption of courses on the topic, and a national committee charged with encouraging the formal teaching of bibliographic instruction—all these developments demonstrate the depth of recent concern for this critical aspect of library education. In spite of this activity, there is still a dearth of formal training for bibliographic instruction in library schools.

That interest in specialized training for bibliographic instruction has persisted and increased throughout the 1970s validates the demands of the early practitioners. Furthermore, the continued expansion of instruction programs in libraries around the country, the prevalence of BI training as a criterion for public service positions, and the introduction of in-service training programs by individual libraries suggest a growing market; yet the question of who should meet the demand of the market remains unresolved. This is an appropriate time to review the past contributions of continuing education to the BI movement, to survey the current mix of continuing and formal education, and then to assess the ability of the status quo to supply the profession with manpower skilled in the techniques of bibliographic instruction.

THE CONTRIBUTIONS OF CONTINUING EDUCATION

The elaborate network of educational opportunities that exists today began to crystallize with the establishment of the American Library Association standing committee on Instruction in the Use of Libraries in 1967. Since then, the growth and pattern of continuing education opportunities has closely paralleled the institutionalization of the bibliographic instruction movement by the profession. In fact, the phenomenal organizational growth can only be rivaled by the equally phenomenal growth of educational opportunities. In retrospect, one might hypothesize that one of the driving forces behind institutionalization was the need to establish a basis for the production of programs, conferences and seminars.

The American Library Association is perhaps the premier example
of organizational diversification, with no less than eight separate units devoted to library use education. The Instruction in the Use of Libraries Committee oversees and coordinates the activities of the other units. It is charged to review on a continuing basis activities within ALA which center on instruction, to encourage instruction activities within the units of ALA, to coordinate activities as they develop, and to act as a clearinghouse for information on significant programs of instruction. The committee membership represents a cross section of librarians from all ALA divisions, including public, elementary, secondary, college, and research librarians, library administrators, and library educators. Its broadly based membership, it was hoped, would enable the committee to identify problems common to all types of library instruction, and to coordinate the development of a continuum of library skills from kindergarten to college.

One of the early goals of instruction librarians was the establishment of a clearinghouse for instructional materials and ideas. It was hoped that such a mechanism would foster a productive exchange of materials among librarians already involved with instruction, as well as assist those who wished to establish instructional programs; in effect, it was to serve an educational function. The charge to the ALA Instruction in the Use of Libraries Committee, formulated in 1967, formalized the desire for a clearinghouse and identified a body to carry out the activity. Although a formal clearinghouse was not successfully established under the auspices of this committee, the climate of cooperation and support promoted by it was an early barometer of the organizational spirit of the instruction movement.

Contributions of the Instruction in the Use of Libraries Committee ranged beyond the scope of committee work. In 1972 at the ALA annual conference in Chicago, the committee sponsored a Show-and-Tell Clinic intended to introduce librarians to multimedia programs and equipment. With hundreds of items available for demonstration, resource people on hand for consultation, and 2000 librarians attending, the program was rated an overwhelming success. It was but the beginning of an avalanche of programs, workshops and conferences aimed at the needs of this audience.

Program meetings and regular committee meetings of the Instruction in the Use of Libraries Committee served as magnets for those interested in library instruction. A large number were academic librarians, and eventually a "critical mass" developed which led to the formation of yet another organizational unit. In 1971 the Executive Board of the Association of College and Research Libraries (ACRL) passed a
draft resolution establishing an Ad Hoc Committee on Bibliographic Instruction. It was charged "to consider the possibility of establishing a clearinghouse for information on instructional programs currently in operation; to explore methods of evaluating existing programs and materials; and to investigate the need for research into problems connected with instructional programs."5

The charge "to consider the possibility of establishing a clearinghouse" reflects the failure of the Instruction in the Use of Libraries Committee to fulfill that part of their charge to the satisfaction of academic librarians. There was still a need to learn about library instruction programs that had been successfully established, and neither the literature nor continuing education opportunities were at this time fulfilling that need. In 1972, Project LOEX (Library Orientation/Instruction Exchange), a clearinghouse located at Eastern Michigan University, established the exchange mechanism desired by academic librarians. With the formation of LOEX and the publication of a detailed survey of library instruction programs,6 the Ad Hoc Committee concentrated on developing a statement of instructional objectives for college-level library programs. The objectives were intended to serve as guidelines for librarians planning and implementing bibliographic instruction programs, and to stand as a benchmark in the process of defining bibliographic instruction needs at various educational levels.7

The work of this committee sparked much interest among librarians, especially those from college and university libraries. The Ad Hoc Committee, officially designated a Task Force on Bibliographic Instruction by ACRL in January 1974, concentrated its activities on committee work. Only occasionally did it venture into other areas, such as the cosponsorship with the ALA Instruction in the Use of Libraries Committee, the ACRL Community and Junior College Libraries Section Committee on Instruction and Use, and Project LOEX of a one-day Consultants Program for instruction librarians at the Library Instruction Resource/Hospitality Center, Chicago, in 1976. Like the Instruction in the Use of Libraries Committee, however, the task force unwittingly became a communications center, serving as a news broker for academic instruction activities around the country. Programs, workshops and clearinghouse activities were first announced, then reported on as part of committee business until the reporting of activities threatened to swallow all of the committee's allotted working time. Attendance at committee meetings—which were intended to be working sessions and not program meetings—grew beyond the boundaries of
assigned rooms, with the overflow spilling into the halls nearby. It was evident that there was a very large audience interested in the library instruction movement and that another forum was needed to accommodate increased participation.

In June 1977 the task force formally dissolved but, phoenix-like, was reborn as the Bibliographic Instruction Section (BIS) within the Association of College and Research Libraries. In the first six months the new section attracted over 2600 members. From the beginning, education and training were acclaimed as top priorities. The BIS steering committee established five standing committees, including both a Committee on Continuing Education and a Committee on Education, and also provided for ad hoc committees devoted to programming and preconferences.

In addition to BIS, there are presently two other units within ACRL devoted to bibliographic instruction. The Community and Junior College Libraries Section (CJCLS) Committee on Instruction and Use, organized in the mid-1960s, is charged to survey materials being used for instruction in two-year college libraries and to evaluate commercially available aids for library instruction. The committee has been particularly active in programming and often sponsors a day-long workshop on some aspect of instruction at ALA annual meetings. The Education and Behavioral Sciences Section Committee on Bibliographic Instruction for Educators was created in 1977. The charge of this committee is very specific with regard to the tools of education and behavioral science and to the special needs of education librarians serving teacher education programs. These two committees have a narrower focus than that of the ACRL Bibliographic Instruction Section, and librarians drawn to them have specialized needs and interests.

The BI groups within ACRL have in common the academic setting, unlike the remaining four units within ALA that have identified an interest in bibliographic instruction. Three of these—Evaluation of School Media Programs Committee (within the American Association of School Librarians), Education for Information Science and Automation Committee (within the Library and Information Technology Association), and Education Task Force (within the Government Documents Round Table)—serve the needs of their respective ALA constituencies and indicate the wide range of BI activity in the profession. The fourth and largest of these units is the Library Instruction Round Table (LIRT), formed in January 1977 at the same time as the ACRL Bibliographic Instruction Section. Although each sprang from the same organizational momentum and have many members in com-
the purposes and goals of each unit are quite distinct. The ACRL Bibliographic Instruction Section speaks to one audience, focusing its energy and attention on the commonality of the problems encountered in academic libraries. As part of the policy-making chain of the American Library Association, BIS may propose guidelines and standards for adoption first by ACRL and then by ALA, and in return may call upon the prestige and legitimacy of ALA when needed. LIRT, on the other hand, while affiliated with ALA, is not part of the policy-making chain. It encourages membership from all library fields regardless of division allegiance and invites participation through its low membership fee. A small portion of the fee goes to ALA, but the majority of the funds can be used for programming, workshops and communication among members via a newsletter. The LIRT charge reflects the intended broader membership, emphasis on programming, and a direct concern with the education and training of librarians: “To provide a forum for discussion of activities, programs, and problems of instruction in the use of libraries; to contribute to the education and training of librarians for library instruction; to promote instruction in the use of libraries as an essential library service; and to serve as a channel of communication on library instruction between the ALA divisions, ALA and ACRL committees, state clearinghouses, Project LOEX, [and] other organizations.”

The record of programs, day-long workshops, preconferences, and publications sponsored by the various committees, sections and round tables is indeed impressive. As more units have been formed within ALA, the number of such offerings has continued to increase, presenting a veritable cornucopia of learning experiences for the conference-goer. For example, in 1979 the ALA conference in Dallas offered a two-day preconference on library instruction sponsored by ACRL BIS, a half-day workshop entitled “The Learning in Learning Resources” sponsored by ACRL CJCLS, five programs on instruction, and twenty-two committee meetings.

Although nearly 10,000 librarians attend the ALA annual conferences, a national organization cannot hope to meet the needs of all librarians. National involvement does not appeal to many librarians; for others, the expense is prohibitive. As the library instruction movement gained momentum in the United States, librarians interested in bibliographic instruction began to congregate at meetings of regional and state library associations.

Of the regional library associations, those of New England, the Southeast, and the Southwest have developed the strongest and most
Training and Education of Librarians

active library instruction committees. Just as at the national level, BI librarians met at committees dedicated to reference or public service, then splintered off to form separate, identifiable units. In 1974 the ACRL New England Chapter presented a day-long workshop on instruction. In 1975 a Bibliographic Instruction Committee was formed within the chapter. Also in 1975, the Southeastern Library Association (SELA) Reference and Adult Services Section presented a one-day workshop on instruction. In 1977 the Library Orientation and Bibliographic Instruction Committee was formed within SELA. The Southwest Library Association (SWLA) accepted the application of the Interest Group for Educating the Library User for affiliation with SWLA in 1975. Directories of library instruction programs have been published by SWLA, SELA, and the ACRL New England chapter, and the last two have also established regional clearinghouses. Quadrennial meetings of the Midwest Federation of Library Associations have offered day-long programs devoted to library instruction in 1975 and 1979.

At the close of 1979, twenty state associations had embraced library instruction to the extent that a clearinghouse had been established, a survey of instruction programs conducted, or a directory published. Many others have sponsored workshops or programs at state conventions. Once formed, bibliographic instruction units within regional and state library associations have continued to provide programs and workshops devoted to library instruction on an annual or biennial basis, capitalizing on geographic proximity to encourage frequent meetings and idea exchanges among practitioners.

The programs, conferences and workshops under the auspices of national, regional or state library associations have been organized primarily by practicing instruction librarians for practicing instruction librarians. Three other sources of continuing education programs can be identified: library schools, institutions of higher education and independent conferences.

Continuing education programs of library schools provide short course offerings which relate directly to the trends and issues of the moment. As the instruction movement has spread, library schools have responded by offering workshops for instruction librarians, such as those sponsored by Drexel University (Teaching the Library User, 1979); Columbia University (Educating Library Users Today, 1978); and University of Kentucky (Bibliographic Instruction Workshop, 1977). In some cases workshops offered through the continuing education programs of library schools are aimed at a broader population, but become very relevant to instruction librarians. Examples are workshops
at University of Denver (Media Production, Supervision and Execution, 1977, and Grantsmanship, 1977); Rutgers University (Statistical Methods for Professional Librarians, 1979); Drexel University (Measuring the Library Use of Young Adults, 1979); and Kansas State University (Open Learning and Non-Traditional Study, 1978).

Institutions of higher education often have adjunct specialized programs which offer aid to faculty or staff in developing teaching skills or adapting new technology to the classroom. For instance, the Center for Research on Learning and Teaching at the University of Michigan offers workshops to the university community on a wide variety of topics: evaluation, large group discussions, personalized system of instruction, small group discussions, utilization of microcomputers in learning and teaching, lecture improvement, and transparency production. Instruction librarians at the University of Michigan have participated in these programs regularly and found them to be of benefit not only with respect to the personal skills acquired, but also as a vehicle to meet other faculty or staff interested in the area of learning skills.

Independent conferences, those not held in conjunction with professional meetings, are of two types: national meetings geared for large audiences which cover issues of broad concern, and seminar-like gatherings intended to focus on one library's instruction program or one teaching technique. The oldest of the national independent conferences is the Annual Conference on Library Orientation for Academic Libraries held at Eastern Michigan University since 1971. The annual Southeastern Conference on Approaches to Bibliographic Instruction, hosted by the College of Charleston, South Carolina, began in 1978 and the third conference was held in March 1980. Both conferences attract librarians from states outside the immediate region (attendance is limited to 150); the Michigan conference has recently begun to attract librarians from foreign countries as well. These independent gatherings of librarians who desire to meet and talk apart from the hoopla of other conventions symbolize the grassroots nature of the entire library instruction movement. Conferences sponsored by a single library, while less frequent, are, nevertheless, an interesting phenomenon of the instruction movement. "Use of Media," sponsored by the University of Michigan Undergraduate Library (1975), and "Librarians, Faculty, and Bibliographic Instruction: A Workshop," sponsored by Earlham College (1979), are examples of these smaller conference-seminar meetings.

As the number of separate, identifiable bodies within professional organizations has grown, so has the number of educational offerings, and the popularity of bibliographic instruction has in turn generated
even more educational opportunities. Advertisements for workshops, institutes, conferences, or programs dealing specifically with instruction totaled thirty-seven in 1979 (see appendix). Seven of these were held at the national level by professional associations, three at the regional level, and twenty-one at the state level. Two were hosted by library schools, one by a university, and three were independent conferences. If one added to this list other workshops potentially applicable to library instruction and offerings restricted to staff of institutions of higher education, the quantity of educational opportunities in a given year is staggering. It is not only the availability, however, but the accessibility of educational opportunities in geographically convenient locations that has been an important factor in developing the continuity and momentum of the bibliographic instruction movement. Ideas acquired by attendance at national meetings or workshops are transmitted to others at regional or state meetings. Ideas popular in one locale are disseminated to the country via clearinghouse exchanges or national meetings. The cycle is continual and the cross-fertilization is healthy.

While quantity and accessibility of educational opportunities are considerations, it is, after all, the substance of the workshops, conferences and programs which draws the audience and becomes both a response to and reflection of the needs of that audience. A survey of the themes of continuing education programs for bibliographic instruction librarians over the past decade shows a distinct shift in emphasis. Programs held in the late 1960s and early 1970s were characterized by the emphasis on introducing the library profession at large to the practice of bibliographic instruction and to the notion that librarians could teach. In 1966, the ALA Preconference on Library Orientation Programs in New York highlighted orientation by audiovisual methods, but the discussion turned to questions of the value, timing and need for more than orientation by students, and the role of the librarian in providing something else. Papers delivered at the first Annual Conference on Library Orientation for Academic Libraries in 1971 continued to explore the role of the librarian in the academic learning environment. The informational, inquiring, “what is bibliographic instruction?” theme of the early 1970s was quickly replaced with a concern for technique, methodology and evaluation. The ALA Instruction in the Use of Libraries Committee’s Show-and-Tell Clinic in 1972 demonstrating the new audiovisual technologies, the University of Denver conference “Evaluating Library Use Instruction” in 1973, and the Fourth Annual Conference on Library Orientation for Academic Libraries in 1974, “Academic Library Instruction; Objectives, Programs, and Faculty
Involvement," signaled the change in emphasis.\textsuperscript{15} The realization by instruction librarians that BI is only one part of the large public service program of the institution has introduced the need for discussion of the organization and management of instruction programs. Several recent presentations have responded to this need.\textsuperscript{16}

While there has been a gradual maturation of topics across the spectrum of continuing education offerings during the past decade, there continues to be a need for and interest in how-to workshops. For example, the 1972 ALA Show-and-Tell Clinic was a hands-on workshop for librarians wishing to view the new audiovisual hardware available for instruction. In 1976 the ACRL-BIS preconference included very practical how-to workshops on constructing workbooks, designing one-hour lectures, and integrating instruction into courses. In 1977 the California Library Association devoted a workshop to audiovisual hardware, and the ACRL New England Chapter Bibliographic Instruction Committee sponsored a workshop on signage. These workshops continue to be as popular and well attended today as they were in 1972, because the bibliographic instruction movement is still growing. Three-fourths of the participants at the May 1979 Conference on Library Orientation for Academic Libraries had never attended the conference before. New people drawn into bibliographic instruction find basic workshops—in audiovisual techniques, videotape production, evaluation, and creation of objectives—relevant. There is a need for diversity, and certainly the wealth of educational opportunities being provided by the national, regional and state associations serves this need.

**PRESENT MIX OF CONTINUING AND FORMAL EDUCATION**

The most significant new trends in continuing education have been the development of internal in-service training programs by individual libraries and the proliferation of clearinghouses. The first trend has been a direct result of the growth of bibliographic instruction programs beyond the capacity of one or two persons. More staff must be involved. Expansion may be accomplished by hiring new staff; more often, however, existing staff become involved who were not so initially, either because of personal preference or assignment to other duties. Whether or not the library staff is willing to participate in instruction, there are two administrative problems: restructuring library duties and
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integrating staff who may or may not have teaching skills into an ongoing BI program.

In-service training allows "newcomer" librarians to acquire skills and techniques from staff who have been performing library instruction, and provides a forum in which all concerned can share experiences, discuss programmatic changes and work out problems. When a BI program expands, in-service training ensures a commonality of approach among staff and agreement as to the goals of various components of the program.

While interest in developing in-service training programs is a recent trend, it is surprisingly widespread. "Teaching Fellow Librarians to Teach," a demonstration of the in-service training program used at Cornell University, was one of the more popular workshops at the ACRL-BIS preconference on Library Instruction in June 1979, and was summarized at the third annual Southeastern Conference on Approaches to Bibliographic Instruction in March 1980.17

While workshops, conferences and in-service training programs allow the sharing of personal expertise, clearinghouses facilitate the sharing of materials. Initial interest in the clearinghouse idea, which surfaced early in the 1970s, was only momentarily assuaged by the establishment of Project LOEX in 1972. Increasing membership figures, materials deposits, demand for conference exhibits, and most importantly, exchange of materials among individual librarians reflected not only the growing number of BI programs but also the value of a clearinghouse as a mechanism for continuing education.18

The success of Project LOEX was not lost on others; regional and state clearinghouses have sprung up around the country, some specializing in type-of-library materials (e.g., elementary/secondary, community college), while others are topic-related (e.g., theology). According to a survey by the ACRL-BIS Committee on Cooperation, twenty-eight clearinghouses were functioning in 1979.19 Coordination of and cooperation among clearinghouses has now become desirable; the ACRL-BIS Committee on Cooperation Sub-Committee on Clearinghouses sponsors a discussion group for clearinghouse directors which meets twice a year at ALA meetings.

Although the history of continuing education for library instruction spans the decade of the 1970s and includes such diverse features as conferences, committees, directories, clearinghouses, and in-service training, the campaign of instruction librarians to see bibliographic instruction taught in library schools has been less successful. As early as 1971, practitioners were commenting on the lack of preparation for
library instruction in library schools,20 but it was not until the middle years of the decade that the omission began to be documented. In 1975 Sue Galloway surveyed fifty-five accredited library schools in the United States. At that time only four were found to offer courses specifically on library instruction, although four others noted that they planned mini-courses in 1976-77. Thirty schools offered no course nor even part of a course incorporating library instruction.31 In 1977 Esther Dyer surveyed sixty-three accredited library schools and broadened the inquiry to include courses for credit, course modules or special courses for credit, and institutes offered by library schools. The survey identified sixteen schools which integrated library instruction into other courses such as reference, media, and type-of-library. As an integrated component, bibliographic instruction receives the greatest attention in school media-related programs, where the time spent per semester averages three to four classes; in literature (bibliography) and reference courses, an average of one-half to two classes is spent per term. The Dyer survey also noted new BI course offerings at University of Michigan, University of Wisconsin-Milwaukee, State University of New York-Albany and Kent State University, all begun since the Galloway survey.22

The low response to the Dyer study (twenty-six schools) and the slightly broadened focus makes comparison of the surveys' results or judgments of growth between 1975 and 1977 difficult. In the interim there were modest advances in the number of full course offerings and introductions to the topic via mini-courses, independent studies, or intersession offerings.

In fall 1979, another survey of library instruction in library schools was conducted by the ACRL-BIS Committee on Education. Unpublished preliminary results indicate little change from the 1977 survey. The University of Michigan and the University of Wisconsin-Milwaukee continue to offer separate courses. The University of Wisconsin-Madison, University of South Carolina and Rutgers University all offered a separate course on library instruction for the first time in summer 1979. Separate courses offered by Kent State University, SUNY-Albany and Pratt Institute, which were cited in the 1977 study, were not continued. None of these separate courses has yet been adopted as a regular part of the curriculum; each has been offered as a seminar or special topic and must be approved each year.

Even though bibliographic instruction has not been overwhelmingly embraced by library schools, there certainly has been no hesitation on the part of practicing librarians to declare the necessity of including BI in the library school curriculum. In June 1975, Galloway polled
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librarians attending a workshop of the California Clearinghouse on Library Instruction. She asked: "Did your library school offer a course or seminar on library instruction while you were there?"; only one answered "yes." Eighty percent responded affirmatively when asked: "Do you feel a course or seminar on library instruction should be offered as part of library school curriculum now?" Lubans has cited a 1978 survey of twenty-eight selected instruction librarians in which one of the questions was "Do you think library schools should provide the basic training for newly graduated librarians to be effective in front of a class and in the design of an instructional methodology for the purpose of library skills instruction?" Of all the questions asked, this received the most unanimous response. Twenty librarians responded "yes," six felt that the class should be elective and could not provide all the training necessary, and two felt that the library school was not the place to teach these skills. The ACRL-BIS Committee on Education is currently undertaking a survey of library instruction practitioners who have graduated from library school within the last three years. The survey will inquire about the relationship of the jobs they hold to their library school training.

The formation of two separate committees within ACRL BIS devoted to the problem of education (the Committee on Continuing Education and the Committee on Education) and similar activities of other associations, such as the Committee on Education in Library Use of the Wisconsin Association of Academic Libraries, are further evidence of the conviction of practicing librarians that education and training are essential.

During the formation of ACRL BIS in 1977, the need for education and training was discussed at great length. The proposal for two separate committees caused considerable division and discussion among members of the steering committee. Some felt that two committees highlighted the importance of this topic and underscored the amount of work needed to be done. Others thought that establishment of two committees invited duplication of effort. Two distinct committees were formed, but not without the guarantee that the activities of each would be closely monitored by the BIS Executive Council in order to prevent overlap.

The Committee on Continuing Education received the following charge:

To study and review the educational needs of librarians working in the area of bibliographic instruction; to gather and disseminate to the Executive Committee information about continuing education in the

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field of academic bibliographic instruction; to suggest and encourage opportunities for continuing education in academic bibliographic instruction; to provide guidelines for continuing education in the area of academic bibliographic instruction;...and to assist ACRL chapters, upon request, in developing programs on academic bibliographic instruction.26

In slightly less than two years, the committee has already established a remarkable record. Organizing and Managing a Library Instruction Program became both a publication and the inspiration for the Preconference on Library Instruction in Dallas in 1979.27 The precedent established by the BIS preconference will be continued on a biennial basis.

The ACRL Committee on Education for Bibliographic Instruction was formed "to explore, encourage, and foster the development and expansion of the study of bibliographic instruction in library schools; to promote communication between librarians working in the area of bibliographic instruction and library schools; and to survey and report to the Executive Committee on the status of library education in bibliographic instruction."28 The committee began its work by conducting a survey, mentioned earlier, on the status of bibliographic instruction in library schools in order to provide current data for comparisons with older survey results. The survey will be used to serve as an indicator of the present state of bibliographic instruction in library schools, to serve as a basis for discussion with library educators, to provide a working list of schools that now offer courses or discrete modules on bibliographic instruction, and to facilitate collection of course syllabi. It is hoped that from a combination of course syllabi examination and the personal experiences of committee members, guidelines will be developed for a full course or a series of course modules on bibliographic instruction.

One goal of the Committee on Education in Library Use in Wisconsin was to promote the development of a library instruction course in one of the graduate schools of the state. Toward this end, a draft of a course proposal was circulated in 1976 among directors of library education programs and administrators of academic libraries. Comments were solicited about the validity of such a course offering. The committee's action not only supported the establishment of a course at the University of Wisconsin-Milwaukee, but also offers insight into the attitudes of library administrators toward the need for education and training for instruction librarians. On the whole, the attitude was positive, as indicated by a quote from one respondent: "I support your appeal for exposure to 'Instruction in Library Use' in library schools. I've discovered through a quick check with our newest staff members that they, at least, did not receive this; they also felt that it should have
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been offered." Another administrator's viewpoint was given as part of the Seventh Annual Conference on Library Orientation for Academic Libraries, "Putting Library Instruction in its Place: In the Library and in the Library School." Joseph Boisse commented that the lack of preparation of new graduates by library schools made it difficult for them to compete for jobs requiring knowledge of instruction. Among the recent graduates he had interviewed, none had an understanding of what bibliographic instruction was all about or what kinds of skills are required.30

Within scarcely six months of that conference and the formation of the ACRL-BIS Committee on Education, the ALA Instruction in the Use of Libraries Committee turned to the question of formal education and training by library schools for bibliographic instruction. Bringing a broader perspective to the issue, the committee unanimously passed a resolution stating that library instruction be included in the curriculum as a requisite for library school accreditation.31

Although surveys, committees, course proposals, and opinions abound, there is limited discussion in the literature concerning the place of bibliographic instruction in the curricula of library schools. Approaches that could be taken by library schools to include bibliographic instruction in curricula and needs that should be addressed from the practitioner's viewpoint are discussed in papers by Beaubien, et al., Galloway, and the Committee on Education in Library Use of the Wisconsin Association of Academic Librarians.32 Justification for a full course on bibliographic instruction by a library educator and a description of the content of the University of Wisconsin-Milwaukee instruction course appears in Progress in Educating the Library User.33 Factors behind the omission of bibliographic instruction in library school curricula were discussed by Patricia Breivik in an essay published in Educating the Library User.34 Breivik's explanation of the absence of library instruction from the curricula was underscored by the comments of four library school deans published in the November 1976 issue of Journal of Academic Librarianship. The deans were asked to comment on the question "Do the deans of library schools agree on the need for library instruction in the library school curriculum?" General consensus was that library instruction was a trend, issue or fad, and therefore did not require serious consideration as a separate, permanent part of the curriculum. Most felt that the topic could be handled adequately as a part of other courses.35

Charles Bunge, director of the University of Wisconsin-Madison Library School, further articulated the library educator's position dur-
ing the Seventh Annual Conference on Library Orientation for Academic Libraries:

Not enough students have library instruction as a career goal to make elective course offerings for them a viable proposition. The students don't know the value of a course in library instruction until they are job hunting, and then it's too late. Also, students who do become interested in the field often lack the requisite background in communication skills and in educational concepts and techniques, so that what they need to be taught adds up to an impossible course.36

In general, there seem to be two separate schools of thought. On one hand, library instruction librarians practicing in the field believe there is a need for concerted effort on the part of library educators to provide training in the techniques and methodology necessary for library instruction, and furthermore, that the topic is both complex and broad enough to warrant the attention of a separate formal course. On the other hand, the library educators feel that bibliographic instruction can be dealt with in the context of one or more existing courses, such as reference, audiovisual services, planning and evaluation, and trends and issues. The reluctance of library educators at the onset of the 1970s was certainly understandable, but perhaps they should review their stance in light of the continuing momentum of the instruction movement, the present demands of the job market, and the apparently unsaturated market for continuing education. As Stanton has pointed out: "The topic has not been taught in the past in a way that meets the needs of employers; otherwise they would not be stating their need so directly."37

IS IT TIME TO CHANGE THE MIX?

At the present time the burden of specialized education and training for bibliographic instruction lies in continuing education, with sporadic and occasional mention of BI in formal library education. There are, however, a number of disadvantages inherent in this arrangement. The first is the problem of attitude. Some years ago in an article reviewing the failure of library schools to discuss future media service requirements as part of the curricula, Harold Goldstein commented that the absence of such instruction led to a negative attitude on the part of graduates toward the use of new media.38 The assumption is made, he claimed, that if it was not important enough to teach in library school, it is not important on the job. Although librarians involved in library
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Instruction have overcome this attitudinal problem, there is often a negativism which surfaces in new graduates who have not been exposed to BI, an attitude which they perpetuate on the job and transmit to colleagues, and which ultimately impedes expansion of bibliographic instruction programs.

A second disadvantage is the uneven nature of continuing education. Despite the widespread occurrence of continuing education programs and their relatively convenient locations, the fact remains that a workshop on audiovisual techniques offered in New England is far less accessible to librarians in Arizona than to those in Maine. Further, there is no assurance that an audiovisual workshop will even be available to librarians in Arizona. Cost, the variability of topics and speakers, and geographic accessibility prevent the uniformity of even basic skills and concepts among instruction librarians in the sense that reference courses taught in all library schools ensure a minimum level of reference competence. Stanton has summarized the shortcomings of continuing education:

The content of a course to prepare librarians for developing instructional programs cannot be compressed into a weekend session or an all-day workshop. Although these meetings, in many cases focused on a narrowly defined concern, may be beneficial and may indeed fulfill specific needs, it is too often the background people bring to the workshop situation that is the real key. If this background has not included a basis for instructional design, the workshop or conference experience cannot be equated to the learning gained from a planned course meeting over a longer period of time.

Another problem with not having an established educational background for instruction librarians is that a commonality of approach is lost and with it the ability to attain the long-term goal of integrating a continuum of library skills into all levels of education. If the energies of librarians involved in library instruction are devoted to acquiring for themselves and providing for others the education and training necessary to practice bibliographic instruction, little time is left for theoretical discussion. It is impossible to sit down in a committee room and discuss guidelines for instruction at a college versus high-school level if all the participants are not in agreement as to what bibliographic instruction is.

Finally, continuing education faces difficulties in terms of the level and timing of the educational opportunity. Organizers of conferences and workshops work against tremendous odds when trying to provide programming that will meet the needs of both the uninitiated and the
veteran of several years of instruction. Perhaps the time has arrived for those planning conferences and workshops, at least on the national level, to indicate in publicity exactly what prior background in instruction is assumed of the participants, so that the audience will be appropriately defined and limited and those who choose to attend will know what to expect.

Mistaken attitudes, unevenness of continuing education opportunities, inability to impart uniform skills or a commonality of understanding, and the twin dilemmas of level and timing could all be addressed by the incorporation of bibliographic instruction into library schools. Library school administrators believe they are adequately addressing the topic of bibliographic instruction either by sponsorship of continuing education programs on the topic or by regular mention of the movement in their standard courses, but the evidence suggests that their efforts are not effective.

Practitioners do not expect library schools to graduate students who are fully qualified to design and implement an instruction program during the first year of employment. Nor do practitioners expect—or want—an end to the variety of continuing education opportunities now available. New applications of technologies, innovative programs, and evaluation methodologies will continue to evolve and should appropriately be demonstrated through continuing education. Practitioners do expect library educators to acknowledge bibliographic instruction as a vital, central component of public service programs and as such to include it in library school education.

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9. Ibid., p. 29.
10. Ibid., p. 67.
17. Videotapes used during the workshop are available from Joan Ormondroyd, Uris Undergraduate Library, Cornell University, Ithaca, N.Y. 14853; or from Project LOEX, Eastern Michigan University, Ypsilanti, Mich. 48197.
33. Stanton, op. cit., pp. 139-46.
37. Stanton, op. cit., p. 141.

**Appendix**

**Programs, Conferences and Workshops Held During 1979**

**March 16-17**
Wisconsin Adult Education Conference: “We’re All in This Together.”

**March 16-17**
Northern Illinois University College of Continuing Education. “Strategies for Library Instruction: A Two-day Workshop.”

**March 20-24**
Oklahoma Library Association Annual Conference. College and University Division. Library Instruction Program.

**March 22-23**
Second Annual Southeastern Conference on Approaches to Bibliographic Instruction: “Library Instruction on the Academic Curriculum: Isolation or Integration?” Charleston, S.C.
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March 24

March 30-31

April 4-6
Earlham College. "Librarians, Faculty and Bibliographic Instruction. A Workshop."

April 19
South Carolina Library Association. Public Services Division. "Can Your Patron Get from Here to There?"

April 26-28

May 1979
Southeastern Wisconsin Health Science Library Consortium. Workshop: "Library Guides for Health Sciences."

May 2-4

May 9-11

May 11

May 11

May 12

May 17

May 17

May 18

May 18
Library Association of the City University of New York. Instruction Committee. Instruction Workshop and Seminar: "Librarians and Instruction: Trends and Techniques for the '80s."

Spring 1979

June 7-8
Maryland Library Association Annual Convention. Library Instruction Meeting.

June 21-23
ACRL-BIS Preconference on Library Instruction: "Tools, Techniques & Tactics: Six Workshops."
June 24-30
ALA Annual Conference, Dallas
ACRL-BIS Program: "Grantsmanship for Bibliographic Instruction."
LIRT Program: "Role of Librarians in Lifelong Learning."
ACRL Arts Section. "Library Instruction in the Fine Arts: Who Needs It!"
ACRL CJCLS. "The Learning in Learning Resources."
ACRL EBSS BI for Educators Program: "Faculty Liaison: Case Studies in Developing Course-related Library Instruction."
ALA Catalog Use Committee. "Where's the Catalog?"

July 9-13
Drexel University. "Planning and Producing Audiovisual Presentations: A Workshop for Librarians, Media Specialists, Teachers and Instruction Developers."

September 14

September 27-28
Wisconsin Association of Academic Libraries. "Library Instruction for Non-Traditional Students."

October 2-5
Middle Atlantic Regional Library Federation. "Library Instruction—Learning Libraries."

October 4
Pennsylvania Library Association. Ad Hoc Committee on Academic Library Instruction. Program on print and A-V.

October 12
Drexel University, School of Library and Information Science. "Teaching the Library User."

November 2
Midwest Federation of Library Associations. "The Other Network: A Cooperative Program of Library Instruction."

November 3
California Clearinghouse on Library Instruction. Workshop: "And Gladly Teach: Concerns of Librarian Instructors."

November 9
Virginia Library Association. Library Instruction Forum: "Perspectives on Library Instruction for Off-Campus Curricula."

Sources: LOEX News, the continuing education columns in College & Research Libraries News, the Virginia Librarian Newsletter, the organ of the Southeastern Library Association, the Southwestern Library Association and the Pacific Northwest Library Association, and Project LOEX clearinghouse files.
The Involvement of the Librarian in the Total Educational Process

BEVERLY P. LYNCH
KAREN S. SEIBERT

The basic assumption which governs the growth and the development of all academic libraries in the United States is that the library plays a role of central and critical importance in the instructional and scholarly life of the college or university. Academic libraries are integral parts of the institutions they serve. Collections are developed and services are designed in these libraries to meet the instructional programs of the particular institution. Programs of library instruction also reflect the development of the college or university of which they are a part. These programs will thus vary depending upon whether the institution is a doctorate-granting research institution, a college which offers a liberal arts program as well as professional programs such as engineering or business administration, a liberal arts college, a two-year college, or a specialized institute (such as a theological school, a medical school, law or other professional school). Programs of bibliographic instruction have been designed to make the library a more effective instrument in the learning process. How these programs emerge and become integrated into the educational process of the college or university is the subject of this paper.

Library instruction is not a new library concern. Several preeminent librarians of the nineteenth century addressed the issue. Melvil
Dewey spoke of the role of the librarian as teacher.¹ William Frederick Poole called for a “professor of bibliography.”² Justin Winsor described a plan for library instruction which forms the basis of many academic library programs still in existence: “It would be a good plan to take the students by sections, and make them acquainted with the bibliographical apparatus, those books that the librarian finds his necessary companions, telling the peculiar value of each, how this assists in such cases, that in others; how this may lead to that, until with practice the student finds that for his work he has almost a new sense.”³

Beginning in the late 1800s, librarians sought ways to introduce library use techniques to students. Most of the early efforts were designed and carried out in the library; few programs were based in the classroom. For most of the period between 1876 and 1930, the curriculum was classical in nature. The accepted teaching method centered upon the authority of the professor, the lecture method and the textbook. The curriculum did not lead students into the library, nor did faculty members. Library use by students, for the most part, was recreational and not curriculum-based.

Although the curriculum rarely demonstrated to the professor or to the student a need for any instruction in the use of the library, librarians at Harvard, Cornell, University of Colorado, and University of Michigan were among those who introduced the library and library use to students.⁴ These librarians provided informal and formal library lectures, offered courses on library use, both credit and noncredit, and made available to the students and faculty library handbooks and leaflets describing library tools. These early programs of instruction were by and large designed by librarians and implemented in the library. Rarely were the faculty involved in such efforts.

In the 1930s the curriculum and changing methods of instruction began to exert a heavier influence on library use by students. Stephens College, a junior college for women in Columbia, Missouri, completed a review of its entire college curriculum in 1932. The new curriculum was designed to emphasize individualized courses of study fashioned around the needs of each student. Required courses were eliminated and traditional practices abandoned. With the full support of President James Madison Wood and the financial support of the Carnegie Corporation of New York, a major component of the program was the placement of the college library into the center of the educational program. The objectives of the library’s role in the curriculum were formulated: “First, to make the library contribute as effectively as possible to the instructional program of the college; second, to teach students how to
use books effectively; and third, to lead students to love books and to read for pleasure.” The librarian of the college, B. Lamar Johnson, served also as dean of instruction. In his role as librarian he was expected to know the library, its resources and its potential for curriculum support. As dean of instruction he was expected to know the instructional program. The dual thrust of the position was designed to integrate the library with the instructional program.

The program at Stephens College appears now to be rudimentary. Yet its contribution to development of professional thought is considerable. Through the instruction programs designed at Stephens College and at other academic libraries in the United States, several requirements now are identified as being essential to the success of programs of library instruction:

1. The faculty must consider instruction in library use to be necessary;
2. The library instruction program must be designed within the context of a particular course or academic program and be consistent with the overall educational program in which it occurs;
3. The instruction program must be presented at a time when the student needs it and is required to use it; and
4. The teaching of library skills must show a progression throughout a student’s time in college and must not be repetitive.6

Each element has its basis for success in the complete integration of bibliographic instruction into the curriculum. In order for such integration to occur, librarians need to be involved in the decision-making process leading to curriculum design.

In addition to the program at Stephens College, those of Monteith College, Sangamon State University, Earlham College, and Swarthmore College serve as examples of library instruction experiments which have influenced other programs. Each of these programs provides an opportunity to review those processes of educational decision-making in which library instruction may be introduced into the curriculum.

Within the academic setting, who makes decisions? What is decided? How are these decisions made? It is in the context of such processes of decision-making that programs of library instruction are created, implemented and judged as successes or failures.

Relatively few studies exist on decision-making in the academic setting or on the governance structures in academic environments. For the most part the studies of universities and colleges have attempted to describe the organization in the context of Weber’s bureaucratic model,7
or in the context of the collegial model. More recently, political models have emerged.

Many bureaucratic elements described by Weber can be found in an academic setting: hierarchy of office, careful specification of office functions, recruitment on the basis of merit, promotion according to merit and performance, and a coherent system of discipline and control. The Weberian model emphasizes authority and legitimate formal power. It describes accurately much of the structure in the university. A major weakness in applying the bureaucratic model to college and university governance is that the model tells little about the processes of university governance or decision-making. It is unable to explain the decision process which leads to policy formulation and change.

Observers interested in this process have rejected the Weberian model and sought to apply to the academic setting the collegial model, or the concept of full participation in decision-making. In this model, decision-making is seen as being achieved through a dynamic of consensus, with governance based on the full participation of all members. Much emphasis is placed on the instructor's professional freedom and the needs for consensus and democratic consultation.

The political model recognizes that decisions are made neither by bureaucratic fiat nor by simple consensus. Instead, it brings into the process power plays and conflict.

Many different groups of decision-makers exist within the academic setting. Most members of a college or university community are able to participate in the decision-making process, although the degree of participation varies, as does the openness of the decision system. In reality, even though most members of the academic community are able to participate in decision-making, only a few do.

B. Lamar Johnson, in describing the library program at Stephens College, identified the process whereby the decision was made to place the library in the center of the instructional program. First, a careful and critical evaluation of the college curriculum took place, presumably with much participation on the part of the faculty. Having received the report which formed the basis of the new curriculum, the entire college staff sought methods of implementing the new curriculum. At about this time President Wood, participating in a conference in California, attended a session on the place of the library in the college. There he was influenced by his conversation with a librarian who chastised all college administrators for not making possible a full and complete college library program. The librarian criticized administrators for hiring clerical workers as librarians or placing "super-annuated" teachers in
charge, failing to provide funds, and offering few, if any, responsibilities to the librarian. Pondering methods whereby individualized instruction could be implemented at Stephens College, Wood decided: "We shall employ a librarian and place upon him such responsibilities that it will be impossible for him to be a mere clerical worker. We shall tell him that we want to place our library at the very center of our educational program, that we want no institutionalized library plan but that we want our library administered in terms of meeting the needs of individual students."

The major decisions at Stephens were influenced by the faculty, who decided upon the change in curriculum. The decisions were influenced also by the president, who was generally supportive of the entire program, who was first to consider placing the library in the forefront of the new curriculum, and who agreed to seek the necessary funds to mount the program. It may be presumed that the college trustees influenced the critical decisions, too. Librarians at Stephens did not participate in the decisions which initiated the program. They participated later in the operating decisions and in the day-to-day decisions of implementation. The role of the president in this case was critical, for without his enthusiasm, support and ability to generate funds, the program would have faltered at the outset.

The Stephens program attempted to bridge the gap between the faculty member responsible for curriculum design and course content and the librarian who supports that effort. The model of a single appointment with dual responsibilities was not emulated in other libraries, nor was it continued at Stephens. After President Wood retired and Dean Johnson left the college, the roles again were separated.

During the 1940s and 1950s librarians continued to talk about the gap between faculty and librarians while they developed new techniques, library courses and programs of instruction. Most of these offerings were outside or adjunct to the regular curriculum, the common exception being library instruction as a component of freshman English. The content of these programs continued to reflect Justin Winsor's outline of 1880.

During the 1960s and 1970s a number of academic programs were designed to integrate library instruction more formally into the curriculum. These programs owe much of their impetus to the influence of the college or university president. At Sangamon State University in Springfield, Illinois, the first president, Robert C. Spencer, played a major role in the decisions which led to an expanding program of library instruction. President Spencer identified teaching as a central
component of the master plan for Sangamon, a new campus established in 1970. Teaching was to be emphasized over research. The educational philosophy of the university included the premise "that library competence is a valid objective of liberal education and, as such, the library has a responsibility to teach this competence." To support this premise Spencer put the library at the center of the instructional enterprise. Librarians were given a great deal of administrative support and the faculty were encouraged to form the teaching program around the library. Spencer outlined a number of strategies that were used at Sangamon to develop the teaching library and to enhance the influence of the librarians and the library. The librarians' technical skills were deemphasized and a major emphasis was placed upon their teaching responsibilities. The university librarian was designated a dean and the librarians were appointed to the faculty. As dean, the university librarian was expected to participate as a full member of the university's Academic Cabinet, which is charged with the development of academic policy. As faculty members, the librarians were expected to participate as full voting members in academic degree program committees. Librarians assisted with curriculum design and bibliographic development, and were eligible for membership in the Faculty Senate, for service on senate standing committees, and for election to university-wide committees dealing with appointment, promotion and tenure. Financial support for the library was provided by the president. The proportion of the institution's annual educational and general budget allocated to the library averaged about 10 percent during President Spencer's term, considerably above the figure of 6 percent suggested by the ACRL "Standards for College Libraries." Sangamon's program of integration of the library into instruction demanded that librarians be faculty members and that the library's budget be high. Both of these decisions were made by the university's first president as part of the university's first plan.

Alan Guskin, Chancellor of the University of Wisconsin-Parkside since 1975, described the role he played in introducing the library instruction program formally into the curriculum of that university and in expanding the concept of the teaching library there. The campus, established in 1965, undertook a review of its entire curriculum upon Guskin's arrival. One outcome of this review was the introduction of a campus-wide collegiate skills requirement. Students now are required to pass college-level competency exams in reading, writing, mathematics, and library research skills by the time they complete sixty credits, or they are dropped from the university. Guskin attributes the successful adoption of the library skills requirement to the support he gave the
program, which was critical. He attributes the decision also to the formal participation of library staff members in the campus-wide planning effort, to the effective work of a senior library administrator on a major university-wide committee, and to the involvement of opinion leaders among the faculty in the initial design of the library's bibliographic instruction program, already underway when Guskin arrived. The financial support available to the library for the instruction program came primarily from reallocations within the library. Few, if any, new dollars were made available to the library from the administration.

The formation of Monteith College also was based upon an educational philosophy which emphasized teaching over research. The ambitious and influential library project designed and executed at Monteith by Patricia Knapp was funded by outside grant money. The project reflected the philosophy that the library must be an integral part of the instructional program. The college, established in 1959 as a subcollege of Wayne State University to improve the quality of undergraduate education, closed in 1975. Although many factors led to its closing (none of which reflected upon the contributions or lack of contributions of the library), the decline in support by the central administration at Wayne State was determined to be a crucial factor.17

In 1966 the president of Swarthmore College appointed a special committee to consider the function and operation of the library in the liberal arts college.18 The study was one of three commissioned that year by the president, the others being concerned with educational policy and student life. After a year's work, the library committee presented twenty-five recommendations designed to support the goal of expanding the role of the library in the intellectual life of the college.

One recommendation was that three divisional librarians be appointed, one each for the humanities, the social sciences and the sciences. These people were to hold a Ph.D. degree in an appropriate subject field and the MLS degree, and were to have experience in classroom teaching as well as library work. The assumption was the same as that held at Stephens College several decades earlier: the divisional librarian was expected in the role of librarian to know the library, its resources and its potential for curriculum support; and the divisional librarian was expected in the role of instructor in a particular discipline to know the requirements of the the curriculum. The duality of function was to enable the library to be integrated more fully into the educational program.

Another recommendation was that those librarians who participated directly in the program of instruction be accorded faculty status.
Although professorial titles were not recommended, the librarian, associate librarian, divisional librarians, and reference librarians were recommended for membership in the faculty; and with this came the right to vote, serve on faculty committees, and be eligible for travel and research grants and for sabbatical leaves.\textsuperscript{19}

The Swarthmore Library study conceded to the faculty its traditional function of instruction. It accepted the library's obligations of helping faculty fulfill these functions. Many of the library committee's recommendations reflected an interest in sound collection development programs, extended library hours, and adequate budgets, in addition to supporting a more active role for the library in the educational process.

The impact of the committee's recommendations was not as pervasive as many had hoped. Only some of the recommendations were adopted.\textsuperscript{20} Difficulties emerged in developing assignments which would serve the ends of a course of study while fostering library skills, and in convincing faculty members to include library skills in the instructional program. The appointment of divisional librarians also was delayed. That delay was determined to be a critical factor in the implementation of the library's program.\textsuperscript{21}

The program of course-related instruction at Earlham College grew out of a library assignment an English professor handed to his class in 1965.\textsuperscript{22} The assignment was a difficult one, so librarians called the professor and arranged to meet with his class to talk about the assignment and the various reference sources which might be useful to its successful completion. From that modest beginning a program emerged of great importance to librarianship as practiced in the small liberal arts college. It had no impetus from the campus administration. It was not designed around a curriculum review. It was designed by librarians as a logical extension of the library's role of support to the educational program of the college.

Some influential programs of library instruction received their impetus initially from college presidents who were determined to review and change the curriculum. In other instances senior faculty members have participated in the central activity of program design through their work in the curriculum review. In a few cases librarians have participated actively in the committees which recommended that library programs be integrated more fully into the curriculum. In colleges such as Earlham, the informal interaction librarians have had with faculty members has led to a de facto program of bibliographic instruction, a program integrated informally rather than formally into the educational process.
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J. Victor Baldridge, a proponent of the political model of decision-making in universities, has constructed a four-step scale of participation in academic decision-making. In this model, participation varies from a small number of participants who are continually active to a large number of inactive or apathetic participants:

1. The officials: those committed to running the university. This group is the most politically active and has the most influence on decisions.
2. Activists: a small body of faculty members, intensely interested in university politics, serving in the campus committee system and in its advisory councils. Sometimes these people become partisans working outside the formal system in order to plan strategies to influence the formal system.
3. Attentive public: faculty members who watch the formal system from the sidelines. Basically, this is a group of onlookers unless an issue of importance to them is being considered. This group potentially is very powerful and thus exerts a great deal of indirect control over official decision-making.
4. Apathetic: those faculty members who never serve on committees and rarely show up for faculty meetings. Others, such as part-time faculty, lecturers, and teaching assistants, are also part of this very large group.

Librarians from time to time have sought membership in the more active groups of participants, but they are found only rarely among the officials or the activists.

A few descriptions exist of the librarian’s role in the decision-making process of the college or university. Most of these prescribe a larger role and emphasize the privileges and responsibilities of librarians as faculty members. Patricia Knapp’s work stands in stark contrast to most of this literature. She characterizes in a vivid way the role of the librarian in the political life of Monteith College. In a careful and objective account of the social structure of the college, she notes that while being a part of the course-planning group in the Science of Society Division of the college, the librarian never was truly a part of the “cohesive interacting group which [the faculty] quickly became...She was not accepted into full membership.”24 As the library project group continued to design and implement the famous Monteith program, librarians found they had never been fully accepted as members of the social science faculty. Once the librarians realized this, they turned to each other for support and developed into a solid and cohesive group themselves. Then the project began to take its ultimate shape. The final
decision on roles was made when the librarians abandoned their own attempts to become part of the faculty group and invited faculty members to join with the library project group. Faculty members had no difficulty gaining acceptance from the librarians, while librarians had grave difficulties in being accepted as members of the faculty.

Baldrige's study of decision-making shows that many people are active in the decisions made at the departmental levels, and that a high degree of participation is evident among the full-time faculty. As one moves to the college and then to the campus levels, the numbers of participants become very much smaller. At the departmental level basic decisions are made regarding the curriculum and degree requirements. Although these decisions are ratified at the college and university levels, and the faculty through its senate generally retains control of curriculum design, the initial design and the critical decisions are made in the academic departments. The departmental faculty members have a broad influence on the curriculum and on the appointments and promotions within the department.

Deans of colleges have broad powers and influence in all areas, including budgeting, planning and overall curriculum development. The general administration, including the president or the chancellor, is strongest in the area of long-range planning and budgetary control.

The library traditionally has been accepted as existing to house and make available to students materials assigned to them by teachers. The library's role to teach useful research skills and to facilitate the habit of independent study has been less widely accepted. It is unlikely that a campus-wide program of bibliographic instruction will be adopted formally into the curriculum unless librarians engage on a regular basis in the decision-making which affects curriculum design. Even in those institutions where librarians participate regularly in faculty decisions, the formalization of bibliographic instruction programs is difficult, for these decisions are made at the departmental levels where librarians rarely participate. Dual appointments such as that at Stephens College or those recommended at Swarthmore College are efforts to influence decision-making at the departmental level. For a variety of reasons, such appointments are rarely made; even when implemented, they are rarely continued.

The role of the librarian as faculty member has been determined by some to be critical to the implementation of a formal program of integrating the library into the educational process. Librarians, however, are faculty members in relatively few institutions. It is thus necessary for librarians to find other ways to become active participants in the
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politics of academic decision-making if instructional programs are to be formally integrated.

Informal programs such as those as Earlham College are easier for librarians to achieve. The initiation and implementation of these programs depend almost entirely on the relationships between individual faculty members and individual librarians. Such informal programs rarely will have the continuity or the longevity librarians seek, for they will remain adjuncts to the regular curriculum. These programs will seldom be integrated freely into the educational process, for they will be designed most often within the context of a particular course offered by a particular instructor. By and large, the specific content of the course and the specific methods used in the course will be determined by the instructor.

References

11. Ibid., p. 4.

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19. Ibid., p. 392.


21. Ibid.


25. Baldridge, op. cit.
The Computer as an Instructional Device:
New Directions for Library User Education

GAIL HERNDON LAWRENCE

Nothing in education is so astonishing as the amount of ignorance it accumulates in the form of inert facts. Adams had looked at most of the accumulations of art in the storehouses called Art Museums; yet he did not know how to look at the art exhibits of 1900. He had studied Karl Marx and his doctrines of history with profound attention, yet he could not apply them at Paris.¹

From all the heady predictions of a new information age, one bringing with it a paperless society, a single observation emerges as a certainty: the field of library user education will be no more likely than any other area of teaching or research to escape the transformations stimulated by the advent of the computer into the information systems. This assertion is knowingly offered in spite of the fact that although automation is certainly one of the few truly major developments in librarianship in the past decades, its application to public services is only just beginning. On-line bibliographic data base searching, though offered by an increasing number of libraries, is hardly a universal service, and there is still only a handful of libraries experimenting with public access to on-line card catalogs.

It is understandably difficult, then, to peer very far into the future and predict the possible ramifications of these developments for library user education. Nonetheless, experience with automation at Ohio State

¹ Gail Herndon Lawrence is Reference Librarian and Instructor of Library Administration at Ohio State University, Columbus.

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University, including in large part the education of patrons in the use of the on-line catalog, and reading of the literature and the reports therein of experiences with automation at other institutions lead this author to two major, if basic, conclusions. First, the machine itself, that is, the computer terminal alone, divorced of any particular service, provokes the greatest change in patron interaction with librarians and library services. Second, if these changed perceptions are to be converted into actual changes in the status and duties of librarians, librarians must actively pursue the new possibilities and ride the coattails, as it were, of this newfound image maker. For librarians engaged in user education, such changes can free them from the confines of a desk and the accumulated ignorance of inert facts about using a particular library or tool, leaving them free to interact instead on a campus-wide basis, and with diverse groups of users, as information transfer specialists.

This paper can be only an outline of the argument leading to these conclusions, positing one picture of the future of information access, pointing out some of the current practices and discussions that seem to lead away from the possibilities of this future, and concluding with a fuller look at the implications of automation for library user education. Predictions of the future are always risky, and predictions like this, requiring a preliminary clearing of minor or distracting side issues, run the additional risks of appearing dispersed and negative. But any prediction can redeem itself by taking apparently disparate issues and relating them in a context that refocuses the ongoing debate on more productive topics. This paper offers such a context and redirection.

A Scenario for the Future of Information Access

The entry of vendors from the industrial sector into the field of automated information handling, the growing public sensitivity to the control of information and its proper transfer, and the recent signs of governmental intent to formulate an "information policy" all threaten to impinge on librarians' isolation, drawing them out of the safe recesses of the library and thrusting them into the center of a stormy, yet central, debate for the future. Gardner and Wax articulated the problem:

In the end, online search services are intended to support the research efforts of individual researchers and scholars. Libraries provide the services to help satisfy their users' information needs; the online search service vendors view users as customers and, quite properly, contributors to their profits. The government's primary intent has been to promote the efficient operation of the nation's research effort.
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And while all three sectors have made valuable contributions to the process of information transfer, the end user is left with services which are both expensive and inconvenient. The frustration the information user must feel at being caught in this impasse becomes clear when his present dilemma is set in the context of any scenario of the future of information handling and the changes he must equip himself to anticipate. Finding such anticipations is easy enough. Indeed, the anxious fascination with the dawning "Information Age" has spawned what is now almost a cottage industry manufacturing scenarios of the future of communication and research. One of the more authoritative of these predictions, of which librarians ought to be cognizant, is the recent report of the National Enquiry on Scholarly Communication. The enquiry addresses the issues of scholarly communication with due soberness, and even its most risky predictions are not given lightly.

Nonetheless, the description of the future scholar-adventurer taken from the report illustrates most graphically the computer's possible impact on how we will communicate with and therefore teach one another. The enquiry portrays a typical academician of the future at work in his office, connected via the computer terminal beside him to all the stored bibliographic citations, full-text documents and other available information in his field. On the terminal he identifies what information he wants and either calls up the display directly or sends a message requesting loan or purchase of a print copy of the item. When he is ready to produce an article, he uses the same terminal to compose, proofread and edit it; stores it in the computer's memory for access as desired by other members of the network; or produces, if needed, a final typewritten copy. The enquiry's predictions mean that the whole research process will be not only much faster, but also more individualized and dispersed.

Writers like Lancaster, Bennett and Martin, dealing with on-line bibliographic systems, predict a similar dispersal of these systems beyond the library's walls. These commentators and others foresee the full and necessary development of on-line bibliographic systems culminating in systems that can be searched directly by the primary user—the scientist, the lawyer, the academician—without the intrusion of an intermediary such as a librarian. Already at Ohio State University the introduction of the on-line card catalog has made possible the Telephone Center, a phone service through which patrons can ascertain the location and availability of any book or journal the OSU Libraries own, have it paged from the shelves and charged out to them, and in many
cases, even have it mailed to their offices or dorm rooms. It seems like a full-fledged realization of the fantasy world of the professor who announced to his class, "The best thing about being a senior professor is that I now own all the important works in my field and no longer have to go to the library."

In a reversal from past developments in research and teaching, however, the decentralization of information processing will not extend the trend toward specialization and isolation, represented by this exemplary professor, but will actually stem it. If all the data bases are accessed the same way on the same terminal, it follows that it will be amazingly easy for a researcher or student to locate and consult work done in a related or totally disparate discipline on the topic of his concern. Individualized research queries and decentralized access to research materials will no longer mean, as they used to, increased compartmentalization within disciplinary lines.

Against this picture of the future, or any time of technological upheaval, Henry Adams's advice to strip education to its skeletal and portable skills emerges as the key to survival by adaptability.

**The Two-Pronged Campaign for Library User Education**

Reducing library instruction to its essentials will require a two-pronged campaign from librarians. One maneuver is introspective and analytic, leading to a delineation of the structural framework of library research. The other movement is an outward one, aimed at assuring the development of portable and flexible on-line systems that can serve the varied requirements of both librarians and patrons.

Of course, the traditional groupings of library resources and access along disciplinary lines will also merge. If librarians can no longer teach "Resources for Sociology" or "Research and Methods in Biology," how will the skills and knowledge of research be repackaged? Library user education will have to rise to the challenge of presenting to students the principles and patterns underlying the information flow in any field, and the types, rather than specific cases, of major reference tools and research libraries. In other words, instead of teaching the use of a particular index, such as the *MLA International Bibliography*, a librarian may use it as an example from which to teach the purpose and role of the national association in a given field, and the kinds and purposes of indexing, illustrating the instruction with examples of many different ones and showing how they differ from abstracts and
reviews of the literature. Likewise, any particular library will be used as a single instance of its type, and the instruction will center on the type and its purpose in the larger information network. Concepts such as these, and the even more basic ones of how to articulate a question and how to evaluate any information given in response, will always underlie research regardless of information format, be it handwritten, typeset or computer-displayed.

However, this radical realignment of library user education from a current role as apologist for the library and its sources to a comprehensive study of information and its flow (resulting perhaps in a full-fledged academic department of "Information Access" or "Information Usage"), is again one of the prophecies that await some mundane developments in the present. The linchpin of this future development is standardized, simple access to the operation of data bases. To secure this access for library patrons and other information users, the user education librarians, clearly marked as people particularly concerned with patrons' needs, should be able to offer the singular service of acting as an advocacy group, relaying to the vendors the specific steps they can take to standardize and simplify their wares for eventual widespread public access. Now, when on-line systems are only beginning to enter libraries, is the time for this action, because the systems are still relatively unformed and untested and are therefore open to adjustment as users' needs become better known.

As a matter of fact, there is a growing number of loud and persistent voices crying for guidance through the hitherto-uncharted wilds of the "man/machine interface." Martin and Bennett have repeatedly called attention to the need on the part of system designers for intelligent, well-presented and persistent statements of users' requirements and capabilities in working with computers. For once, user education librarians, by concerted group and individual efforts, have the opportunity to formulate the tools and services they will have to present to patrons, instead of trying to cope with what they have been given as a finished product.

Some Current Questions for Library User Education

Such active participation, if it is to be effective, however, demands that user education librarians acquaint themselves with several new areas, such as the basic principles of information science, user surveys and research techniques. John Bennett, in a stimulating "Challenge
Paper" delivered at a workshop on the user interface in 1971, listed these as well as other areas of concern for those interested in affecting the development of on-line systems. Joining in the search for solutions to these problems will, of course, raise a host of minor issues and red herrings that will have to be sorted through. The challenge is to deal with these questions without losing sight of the ultimate goal of aiding both librarians and patrons to equip themselves for the future.

The guiding principle for this discussion was presented in 1976 by Frederick Kilgour in his article, "Computerization: The Advent of Humanization in the College Library." Automation is humanizing, according to Kilgour, when it allows the user to tailor the library's files and sources to his individual needs and simultaneously frees the librarian from routine, machine-like tasks. The machine becomes dehumanizing when the user and the staff are subservient to it and become mechanical in their tasks—witness the pressman reduced to feeding paper to a high-speed press and given no control over the speed. The proposition for debate becomes whether the librarian is to become the slave of the machine (in this case the computer) in the same way.

Lest the problem seem overstated and merely rhetorical, experience with an on-line catalog at Ohio State University has shown that the mere introduction of terminals into the library generated a seemingly endless stream of detailed and frequently tedious questions on nothing more substantive than how to use the hardware, e.g., how to clear the screen, back-space and enter. Likewise, the wording of an error message can confuse more than it clarifies, thus imposing another time-consuming burden on the person responsible for instructing users. These particular problems show some signs of abating with time as more high schools teach students how to use computers and, more importantly, as OSU improves its own system. The similar tedium of endlessly explaining minute differences between the search commands used on different data bases, or issuing updates on the ever-changing intricacies of the systems, can only be avoided by the active collaboration of the manufacturer and those familiar with users' needs and capabilities.

Those responsible for planning the integration of on-line search services into library routines and library instruction must actively seek out the most creative and liberating use of the machines and new capabilities by librarians. To wait passively for these developments is to submit to slavery. But what, then, are these new capabilities? As with most questions about the future, answers, suggestions, prophecies and even jeremiads abound. The best approach is through the back door,
looking first at what is not new, in a fundamental sense of the word, and what is not essential to on-line services.

David Wax and others have claimed that the presence of on-line services itself creates a new demand that librarians stage active programs of marketing and promotion in order to acquaint their customers with the availability of on-line search services and to attract their patronage. Wax and Atherton give lists and instructions for producing a minimum of these materials, most of which are brochures and mailers of kinds already long known to librarians involved in user education. With the possible exception of an increased use of mailed announcements, most of what Wax, Atherton and others have to say is already customary procedure for user education librarians. It is only the consistency and persistence with which the campaign must be mounted in order to recoup the costs to the library of providing on-line services that are new, and not the idea or the media proposed for the message.

There is good reason to believe that within the academic world the era of straitened budgets and declining enrollments alone would have very likely required more aggressive marketing and promotion from librarians, as they have had to fend for themselves against other, more visible departments for support from the university administration. Furthermore, even if this widely predicted budget crunch had never materialized, a host of other developments within the library itself, such as greater use of microforms, increased networking, and on-line catalogs, would have necessitated most of the same marketing techniques, with only the prod of high cost to the library left out. Acceptance of more aggressive marketing and promotion is definitely required by the introduction of on-line services, but it is not and cannot be restricted to them. All library services, and indeed the library as a concept itself, need some aggressive public relations for the library to hold its place in campus life. The entry into marketing is not nearly so new as overdue.

Again, there is great interest in and discussion of the possibility of a new scope for user education in the seemingly different interview techniques now used by librarians working with patrons needing on-line searches. Atherton, Cooper and Knapp have each explored the “informative interview” in more detail, but arrive at opposing conclusions. Pauline Atherton, citing this development as the most important impact of on-line searching on the reference library staff, gives the following paraphrase of reference librarians’ comments:

I can be more of a professional librarian at the computer terminal than I ever could at the reference desk. During the presearch interview I really feel like an analyst who needs to get a very clear understanding
of the search request. I know and the user knows it all is in good
hands.

Now I am perceived as a professional information specialist and
not just as a library clerk. The user knows he is dealing with someone
very much like a doctor who can diagnose and treat him
professionally.11

Knapp disagrees and concludes: "The reference interview in the
computer-based setting is not radically different from interviewing at
the reference desk. The differences are generally more of degree than of
kind."12

What is in fact taking place, then, is a recurrence of the old debate
about doing as opposed to teaching, offering service or facilitating
self-service, that has been carried on by reference librarians almost since
the inception of reference desk service. The introduction of on-line
services has certainly precipitated developments in the field by introduc-
ing the need for separate appointments and the concomitant changes in
scheduling patterns, and thus has given more form and precision to the
previously rather vague concept of a teaching interview. Like marketing
and promotion, however, this change in reference service is something
that was on the horizon, as exemplified by the development of research
consultant services described by Ishaq and Cornick.13 Once again, on-
line searching has not caused this new service pattern, but has given it
greater impetus and increased publicity.

There is, as well, one rather dishearteningly old-fashioned charac-
teristic of the on-line informative interview. As the interview is now
structured, the librarian does the searching of the data base for the
patron. This may be temporarily justifiable because the systems now
offered are so complex and varied that only a trained and practiced
searcher can manipulate the data bases efficiently and effectively. Yet
before librarians accept this task too willingly, caught up in the excite-
ment and intrigue presented by a mammoth new toy, they ought to
consider whether or not the excitement will wane with increased
familiarity.

Perhaps the introduction of Readers’ Guide, and certainly the
development of citation indexes, provoked both interest and excitement
in librarians. But how many who were willing at their introduction are
still eager to search these indexes for any and every new paper topic
requiring their use? Is it not preferable to recommend an index, explain
its use, and allow the patron to do the actual searching on his own?
Further, as data base searching extends beyond the confines of the
library, librarians will increase their own and the users’ satisfaction by
leaving the reference desk and addressing the issues in the classroom,
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explaining and recommending both sources and search procedures to groups having similar needs. Before tying themselves to stations and delimiting further their freedom to enter classrooms, librarians should concede that the intellectual stimulation of pressing keys on a computer keyboard and watching printouts come back may be quite a bit less than they hope to gain from their jobs when the novelty of the machine has worn off. It is a more productive use of librarians' time to pressure the data base producers and vendors to develop on-line systems that all use a standardized format and are easy enough to search that patrons can assist themselves.

Finally, on-line data base searching presents librarians with a "red herring" because it may obscure the true nature of library research by giving undue focus and significance to the exhaustive literature search. Faculty and graduate students most often need and want from the library statistics, addresses, biographical information, or bibliographical verification. In fact, they perform library-based literature searches very sporadically throughout their careers. Undergraduates need an introduction to the concept of research and the library's contribution to it, an explanation of how to phrase a meaningful question, and a method for evaluating the answer as to its appropriateness and correctness, in addition to a review of the card catalog or a more refined explanation of Readers' Guide. Data base searching in its current state of development satisfies only a small part of library users' needs. There is a strong temptation to substitute the part for the whole—offering a data base search as a cure for any library problem—when the computer seems so new and glamorous.

The Ultimate Transformation of Library User Education

The preceding analysis is not an attempt to dismiss the excitement surrounding the introduction of data base searching as just so much hoopla. Such a technological advance surely offers some new freedom for librarians. In fact, it offers so much freedom and an open invitation to such a new realm of activity that perhaps librarians will choose to scurry back to the relative safety of literature searching, the reference desk, and promotional brochures about both.

The advent of the computer into the library has a profound impact on librarians, not so much because of what it does or can do directly to the library or librarians, but because of the effect it has on library patrons. As Shoffner has stated: "The most important trend in libraries is really not automation as such. The most important thing is that there is continuing to be a perceptual change within the library about the role
of the library and the way in which the library operates."14

There is a certain mystique and novelty about the computer that fascinates and attracts most people. We have observed this fascination at Ohio State, where we see students bringing in other students or their visiting families to show our computer system to them. And the power of this attraction is not limited to the naïve user, as Joan Maier illustrates in likening the magnetism of the CRT terminal for the scientist to: "the snake charmer’s pipe for the cobra....Observing them at the CRT was like watching the father play with his little boy’s electric train."15 Surveys of users of on-line services consistently report that the heaviest users, the ones most willing to pay for on-line searches, are graduate students and faculty.16 The computer, then, draws out into the open members of the two most consistent but elusive groups of library users.

For the librarians the effect of this new reception is direct and challenging. Cuadra and many others have observed that: "the new perception also stems from seeing the librarian or information specialist operating at the terminal—engaging in what is obviously a highly specialized activity involving new technology. The librarian is perceived as being ‘with it.’ "17 But Cuadra also slipped in the observation, which others have given more prominence, that just as users are impressed with the speed, efficiency and professionalism of on-line searching, they are more apt to begin demanding the same qualities from other library services.

We are back where we started and can ask again, with Cavan McCarthy this time, "And where, finally, do all these wonderful machines leave librarians?" His answer is the most down-to-earth yet precise one possible:

Just where they always were, out in the cold, draughty interface between the user and the material. The big difference is that they are now even more exposed. Although librarians are supposed to be communications experts, they frequently hide behind slow, faulty communications channels; "If it was borrowed today, we won’t know until tomorrow"; "Don’t catalog it yet, see what BNB does with it.” Or the far more insidious waste, the researchers who do not request articles because they never succeed in fighting through the bibliographic thickets and finding them. But on-line working gives more information, faster. It is more difficult to hide; further effort will be required to keep abreast of the advances in level of service. In the end everybody wins; users get better service and librarians more satisfying jobs. The price is that librarians have to work harder.18

Life at the interface will be somewhat less harsh for librarians when
they have effectively relayed to both the commercial vendors of data bases and the library itself the remedial steps necessary to make all their systems easier to use. The remainder of the hardship will be made more tolerable by two major gains from automation which user education librarians can use to their benefit: the introduction of a new, attention-getting device that will publicize libraries and their services; and the new communications channels with faculty and graduate students, the power groups on campus, which computerized search services seem to open.

For library user education, these characteristics of automation translate into two very practical instructional aids. To begin with, the computer itself gives to library user education the ultimate instructional device. It is glamorous, as noted above, and it is portable and responsive; it assures attention and can be used to illustrate a variety of indexes, abstracts and citation sources. Second, the computer gains entry into the domain of the two key educational groups on campus, graduate students and faculty. The real future for library user education lies in combining these two possibilities and thereby increasing the impact of librarians, disproportionate to their numbers, by allowing them to educate the educators.

In a first move in this direction, Anne Lipow and her colleagues at Berkeley have made effective use of the computer in building a successful program of faculty seminars on new developments in the library. F. Wilfrid Lancaster described the next logical step in such a program with an outline of a plan to educate professionals in the information services available to them. He places on-line retrieval systems against a backdrop of the type of literature available, the function of other retrieval systems such as the card catalog, the use and organization of personal files, and even the future developments anticipated in information science. Such a presentation is necessary if we are to ensure that the educators on our campuses know how to use information resources and how to help librarians decide what students should be learning about them at each stage in their education.

Ironically, then, the freedom offered by automation will take user education librarians one more step out of the library. Librarians can and should organize, and demand that vendors standardize and simplify the accessing and searching procedures so they will no longer be tied to the desk, or to brochures or demonstrations explaining how to back-space, defining codes and search keys, or describing the mechanics of signing on and off. With the newfound freedom, entry, and visual medium, librarians can finally impart to users an awareness of such basic infor-
mation problems as variations of language (and therefore access from field to field), the place of printed as opposed to verbal resources, and the criteria for anticipating what will be published in journals as opposed to books. The challenge of automation is a total redefinition of the role and function of library user education. Are user education librarians in the business of explaining and defending the library, or are they in the business of encouraging and assuring knowledgeable access to information? Are they in the book or information business? If the latter, how do they fit into the larger construct, and what can they offer there as the particular service and expertise of the library and the librarian?

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Evaluating Bibliographic Education: A Review and Critique

RICHARD HUME WERKING

As the popularity of bibliographic instruction* has grown, concern about its evaluation has more than kept pace. Champions of instruction, as well as critics and neutral observers, have urged practitioners to evaluate their programs, or researchers to develop better methods of evaluation for others to use. Such concern has met with a response that in recent years has become noteworthy.

The appearance of a considerable number of books, articles and other documents over the years has failed to still the clamor. Although recognizing the recent increase in the number of such pieces, Brewer and Hills observed in their 1976 state-of-the-art review, “It is significant that there are few references to evaluation in the literature of reader instruction and until very recently they have been virtually non-existent.”1 Likewise, Fjällbrant in 1977 approvingly quoted Lubans: “Instructional programs in all types of libraries have been infrequently evaluated; their need and effect have not been measured except in a few isolated cases.”2 A critic of bibliographic education has delivered the same message, in language quite unlike what is generally heard at conferences of instruction librarians or found in the library literature.

Richard Hume Werking is Assistant Director, Reference and Collection Development Services, University Libraries, and Assistant Professor of History, University of Mississippi.

*For purposes of stylistic relief, the terms bibliographic instruction, instruction, bibliographic education, and user education appear interchangeably in this essay, although I prefer the latter two terms.
According to Benson: “Bibliographic instruction seems to be perceived by many librarians simply as a self-evident social good, not needing an extensive rationale or empirical evidence to substantiate its effectiveness or even to support the need for it. Much of the literature of bibliographic instruction resembles a dialectic with the antithesis missing.”

General complaints about the lack of evaluation at the program level have been substantiated with specific evidence. In a survey reported in 1975, Peter Hernon found that about two-thirds of responding libraries were not collecting data with which to review their library lecture programs. Likewise, James Ward’s survey of instruction programs in southeastern academic libraries revealed that more than three-quarters were not using any evaluative instrument. Even some of the better-publicized programs of bibliographic instruction, supported with grants from the National Endowment for the Humanities and the Council on Library Resources, have evidently done little to evaluate their efforts.

Such is the theme that emerges from the literature. It is a message that will likely persist for some time, unconquered if not undaunted by the appearance of articles outlining the evaluation of user education programs and techniques at such places as the University of Arizona, Brigham Young, DePauw, Pennsylvania State, or the Wooster Agricultural Technical Institute. Before elaborating on this theme, this survey of the literature will examine reasons for evaluating, what and how instruction librarians evaluate, problems with evaluation, and questions of proof.

Why, What and How to Evaluate

There are few explicit disagreements about the definition of formal “evaluation.” Suchman has characterized it as “an appraisal of value,” while others have stressed its role in describing outcomes as well as placing values on them. Fjällbrant provided a succinct description covering both emphases; she observed that the “purpose of evaluation is to collect and analyze information that can be used for rational educational decision-making.”

Systematic evaluation in user education occurs for a number of reasons. Surveying 136 instruction librarians at liberal arts colleges, Lindgren found that 90 percent of the 68 who evaluated did so to improve the instruction program. The next most popular reason, cited by 43 percent, was “to justify the program to oneself.” Other reasons found by Lindgren all involved justification of the program to various
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elements: the faculty (40 percent of the evaluators so indicated), the college administration (31 percent), and the library administration (18 percent). Lindgren’s list by no means exhausts the possibilities; additional reasons noted by other investigators include gathering information as part of a needs assessment, comparing different instructional methods, defining and redefining goals and objectives, reinforcing students’ learning, and gaining “visibility” for the library.

The objects of evaluation also vary. Instruction librarians agree in general that their efforts are intended to provide students with the ability to use the library more efficiently and effectively than they would without instruction. But there is much less agreement about more specific instructional goals and also about the form instruction should take. There is similar, and closely related, disagreement about how librarians should systematically determine if either the general goal or more specific goals are being met. Consequently, there are several answers to the questions of what and how to evaluate.

Kirk has provided a useful taxonomy describing several ways of measuring student achievement in library use. One common method is to gauge the mastery of the content of bibliographic instruction by administering a test which asks questions about such items as the parts of a catalog card or citations from a journal index. Librarians can also examine the product of a student’s endeavors in the library, such as the quality of a term paper’s bibliography, and even the process of the student’s library work—i.e., was it an efficient method?

Although improvement in library use skills (variously defined) is the most common object of bibliographic education and thus of evaluation, it is not the only one. Kirk, Fjällbrant, Vogel, and others stress the importance of changing attitudes as well. According to Kirk, instruction programs “must change the attitudes of library users into positive relationships or positive feelings towards the library and librarians,” presumably because those positive relationships or feelings will contribute to the library’s goals. Thus, librarians frequently survey students about their feelings toward libraries and librarians, although reports of such surveys have constituted a relatively minor part of the evaluation literature. Other candidates for assessment are changes in patterns of library use (perhaps as indicated by circulation and reference statistics or the number of students doing research) and the position the instruction program holds among the library’s and the institution’s priorities.

Virtually inseparable from what is evaluated is the question of how to evaluate systematically, going beyond the librarian’s observation of
patron behavior, which is an integral and extremely important part of library service. Indeed, observation is no doubt the most common method of evaluation by librarians, and the basis for all sorts of opinions. However, it is not systematic. As noted above, librarians try to gauge learning by administering various tests, a few of them more or less standardized and others homemade. Of Lindgren’s respondents, 43 percent used some sort of test, but his category “testing user performance” leaves much unclear about what was actually tested and how. More frequent, Lindgren found, was a survey of student attitudes, conducted by 74 percent of responding librarians. Here, too, it is not clear whether the survey was by questionnaire or by interview, although almost certainly the former method was heavily predominant. Less popular than the student survey was a faculty survey, undertaken by 60 percent of the respondents. One-quarter of his respondents measured performance in other ways.

Those other methods of measurement focus chiefly on less obtrusive measures than tests, questionnaires or interviews. They include examining the products of instruction, such as term paper references and bibliographies. Also, to study the process of library use and the impact of instruction upon it, librarians and faculty occasionally ask groups of students to keep logs which track their library use in terms of such factors as sources consulted and in what sequence, and time spent on various activities and sources. Library use is also measured at a more “macro” level than the individual student, for example, by number of books circulated, number (and sometimes kinds) of reference questions asked, number of individuals entering the library, and number of interlibrary loan requests.

If observers outside the circle of instruction librarians find these methods less than completely satisfactory, they are not alone. Kirk spoke for many of his colleagues when he declared, “We are all thoroughly dissatisfied with the kinds of evaluation tools available.” The method which is most criticized, and which is paradoxically that most commonly reported in the literature, is the written test. As already noted, there is a discrepancy between its relative infrequency in practice and its role as the dominant type reported in the literature. In all likelihood, practicing librarians feel more comfortable in constructing their own survey instruments to determine student and faculty attitudes than they do in constructing their own objective tests. Thus, there has been a much larger market for articles describing the development and use of tests.
The Test

The single most popular library skills test is the Feagley Test, developed in 1955 by Ethel Feagley and her associates at Columbia University. Several pages and eighty questions cover: parts of a book; definitions of terms such as "format," "italic" and "imprint"; arrangement of headings in the card catalog; and six other categories. The test was constructed as a diagnostic device to determine the level of library skills, rather than to assess the impact of bibliographic instruction. Many schools, including Earlham, Lawrence, and Towson State as early as 1939, have used some form of written test to determine the most basic library skills level of incoming students, and occasionally to serve as a teaching device. Such tests are usually much shorter and simpler than Feagley's.

The past few years have witnessed a number of reports in the literature detailing the construction and use of tests to measure the impact of bibliographic instruction. One large group consists of objective tests designed to determine, according to Kirk's taxonomy, the content of instruction. Parlett and Hamilton refer to this model as employing the "agricultural-botany paradigm" and summarize it as follows: "Students—rather like plant crops—are given pretests (the seedlings are weighed and measured) and then submitted to different experiences (treatment conditions). Subsequently, after a period of time, their attainment (growth or yield) is measured to indicate the relative deficiency of the methods (fertilizers) used."

At least two examples of the botanical model appeared in the literature during 1979. At DePauw University, Hardesty, Lovrich and Mannan carefully reported on the first-year evaluation of the school's Library Service Enhancement Program. Using control and experimental groups, together with pre- and post-testing, the investigators found that the students receiving instruction scored significantly higher, statistically significantly, than those in the control group on a 20-item test. Their mean average score rose from 12.2 correct items before instruction to 14.9 afterward. The test asked students to indicate which area of the library was "the most logical place to start" a search for information such as census data, a magazine article or a particular book. Hardesty also measured the change in certain student attitudes before and after instruction, concluding that such change was much harder to effect than changes in library use skills. Finally, the article serves as the most explicit example to date of evaluation undertaken to justify bibliographic education to college and university administrators. While seeking
to explain clearly to other librarians the process of systematic evaluation and of creating a valid and reliable instrument, Hardesty noted that the evaluation efforts at DePauw "proved helpful in gaining administrative support" for the university's successful grant proposal for participation in the College Library Program sponsored by the National Endowment for the Humanities and the Council on Library Resources.27

Other evaluations appeared in 1979 using tests which measure content. Phipps and Dickstein's description of their assessment of a library skills program at the University of Arizona is a useful complement to the DePauw study. Although not as helpful as Hardesty's description of certain evaluation procedures, Phipps and Dickstein went further in other respects, explaining how their evaluation was tied to explicit program objectives. They also showed scores for each question on their pretest and post-test, for both control and experimental groups, observing which library skills the program taught better than others, as well as which test questions proved more and less satisfactory.28 Like the DePauw experimenters, Phipps and Dickstein concluded that bibliographic education significantly improved the library skills of the pupils studied, but they made no explicit claims of statistical significance or of impressing administrators.

From Penn State, Glogoff reported on the use of a homegrown test that was used, without modification, for a variety of disciplines in all classes receiving instruction. Since there was no attempt either to ascertain or demonstrate the value of instruction to students, no control group was established. The pretest at Penn State was used diagnostically to determine the level of library skills in a given class, and instruction for particular groups was modified accordingly.29

The importance of using a control group when the purpose of evaluation is to assess the value of instruction versus no instruction was demonstrated in a study at Northeastern Oklahoma State University in 1977. Students enrolled in a library skills course did show improvement between pretest and post-test, but so did students not in the class. In fact, the scores of enrolled students showed no detectable difference from those of the other group. As a result, the librarians became aware that improvements in instructional methods were necessary.30

A few years ago Wiggins reported testing at Brigham Young University. Programs designed to teach students how to use the card catalog and periodical indexes were developed with explicit objectives and were carefully evaluated to determine whether those objectives were attained. Test questions for both programs were piloted on students and librarians. Wiggins found that the scores of students receiving either pro-
grammed or nonprogrammed instruction showed statistically significant improvement on the post-test, while those of students in the control group did not.31

As the Wiggins studies illustrate, tests are employed not only as diagnostic tools or to measure the absorption of content, but also to compare methods of instruction—a time-honored subject of educational research.32 An activity gaining in popularity is the comparison of programmed and nonprogrammed instruction (the latter usually consists of one or more library lectures). As instruction librarians have become more aware of the great demands, actual or potential, on their time, they have often turned with hope to less personalized instructional methods.33 Wiggins's studies, Surprenant's evaluation at Northland College of a program to teach use of the card catalog, and Phillips and Raup's treatment at Wooster Agricultural Technical Institute of their periodicals indexes program all used some version of a workbook and all found no loss of effect with programmed instruction. Wiggins even gave it a statistically significant edge over the library lecture.34

Few studies, including a large number in the field of education, have documented the instructional superiority of one form of media over another.35 A possible exception is Kuo's study, reported in 1973. A media librarian, Kuo reported on his comparison of six methods of instruction for the science library at Portland State College. He contrasted groups instructed through lecture, audio, slide-tape, notebooks with filmstrip, audiovisual (including a followup with a librarian), and a control group which received no instruction. An objective test of ninety items was given immediately following the various forms of instruction. Kuo concluded, not suprisingly, that the most effective format was the combination of audiovisual methods with a librarian-led session to answer questions and reinforce certain points.36 Young in 1974 described Kuo's work as "the most elaborate experimental research on instructional strategies to date" in user education, a judgment that is still apt.37 But, as Young observed then, the samples were small and some of the procedures involved in setting up the experiment were insufficiently explained.38

Objective tests which attempt to determine the degree to which library skills are learned by students have certain advantages over other methods. They are relatively easy to administer and grade, and the results are readily quantifiable.39 Tests share with other methods additional useful characteristics, such as pre-/post-administration and comparisons between or among groups. Yet, many thoughtful observers have raised serious questions about the widespread reliance upon tests
for evaluating user education. Kirk has even commented that “these tests...do not serve the profession very well.” Some of the criticism focuses on problems with methodology, such as lack of standardization or failure to establish validity and reliability of questions. “The greatest limitation, however,” Young has noted, “is the prominent as well as to the numerous locally developed paper-and-pencil tests of library knowledge is their artificiality as devices for ascertaining a user's ability to negotiate the complex bibliographic structure of a library.” Young voices a common complaint that, questions of methodology aside, tests can measure achievement of only the most fundamental user skills. Two of the best tests, those at DePauw and Arizona, have focused on the most basic level, as their authors have readily acknowledged.

A central, and usually implicit, assumption of test makers for years has been that library usage would reflect whatever knowledge students could demonstrate on the objective tests, an assumption that is suspect. Burton, while head of the instruction program at the University of Texas's Undergraduate Library, expressed it well: “True and false, multiple choice, and identification test items can measure whether students recall specific facts and principles about library materials and procedures; however, they cannot measure changes in behavior or actual success in finding material. Recall and behavior in a real library situation are not always analogous.” Others also stress that more effective library use is learned by actually using the library, and that testing for certain kinds of limited skills, often involving short-term recall, is not a satisfactory tool for evaluating bibliographic education. As Benson has noted: “User behavior must be our focus, not a prescribed set of skills....Do we care about differences in the ability to use libraries as a distinct issue? I am more concerned with the presumed goal underlying that of improved abilities: changes in the actual use of libraries.” Bloomfield has commented that, considering the narrow focus of library skills tests, “it appears that we librarians have shown a poor understanding of the value of the library to our students.” The artificiality imposed by the testing process itself has also not escaped comment, as critics have raised serious questions about the ability of testers to control the random and unpredictable variables that abound in the world of higher education. Fjällbrant and Werking have even speculated that, combined with their narrowness, the attractiveness of objective tests has prompted instruction librarians to concentrate on basic, easily “measurable” instruction, and therefore has limited their efforts.
Another common complaint about objective tests is that students are often tested immediately after receiving instruction, and that the significance of such short-term gains is not likely to be great.\textsuperscript{51} The point is well taken but in all fairness, short-term evaluation is not a problem specific to objective tests; other assessment methods are also susceptible to its pitfalls. In an attempt to deal with this problem at Chalmers University in Sweden, Fjällbrant's evaluation procedures included an attempt to assess, through prestructured interviews, the long-term retention of library skills ten months after instruction.\textsuperscript{52}

More promising than objective tests are those measurement methods which go beyond the content of instruction to gauge student performance in the library. Kirk's well-known experiment in a large, introductory biology class at Earlham compared lecture-demonstration and guided exercise methods of instruction, finding no significant difference between the two groups. Instead of using only an objective test, Kirk had students write a short research paper—a product of their library use. Faculty evaluated the content, and Kirk assessed the bibliography on the basis of several criteria.\textsuperscript{53} Similarly, as part of her Monteith College study, Knapp and her colleagues developed several performance tests that they concluded showed "considerable promise," but which needed more work.\textsuperscript{54} Fjällbrant, too, in her multifaceted evaluation at Chalmers University, examined each student's list of references "in order to see whether the students were able to carry out a practical literature search."\textsuperscript{55} Breivik's experiment at Brooklyn College compared library skills in two groups receiving instruction and a control group on the basis of grades received on research papers.\textsuperscript{56}

Yet the difficulty of constructing and administering performance evaluations is considerable, as indicated by their almost complete absence from the literature. Even Kirk and Knapp chose not to become involved with some features of objective testing which would have enhanced for others the value of their work, notably, the use of control groups and pretesting. In some cases, probably many, it seems to would-be evaluators "infeasible" and "too time-consuming" to administer performance tests to large numbers of students.\textsuperscript{57} Hence, they rely on the easier objective tests, with all their drawbacks. Performance tests are probably much more common in separate library skills courses, when the entire course is under the control of librarians, than in course-related instruction.

The Survey

Although not treated widely in the literature, the survey of students
is the most common method of determining systematically the effects of bibliographic education. Librarians use surveys to get feedback from students in order to improve instruction; to demonstrate to themselves, colleagues, faculty, and administrators the utility of their efforts; and to determine needs. By asking students whether instruction was worthwhile and, if so, how, they attempt to gauge its impact, as judged by the student, on both the process and the product of library use. Adams recently reported on the questionnaire used at SUNY-Oswego, which asked: (1) Did the course-related instruction help students complete their projects? (2) Was new information presented? (3) Did the students have problems completing the projects? (4) Were the presentation skills of librarians adequate? At Earlham, the survey evaluation of Kirk's experiment probably impressed faculty with the educational value of user education; three-fourths of the responding students in the introductory biology course thought they had learned as much or more about course content from the library-based paper assignments compared with the non-library-based exams and quizzes, and 95 percent said they had worked harder on the library-based papers.

Questionnaires usually ask students to compare instruction as presented with no instruction, rather than to compare two or three forms of bibliographic instruction. Response rates are usually quite good (with responses thus representative of the group), in course-related or separate-course instruction, assuming a small percentage of absences from class and assuming as well that the questionnaires are filled out and collected in class. Johnson, however, is leery of such terms as "useful" or "helpful," preferring more specific self-reporting on behavior in response to questions like, "How many times did you use Biological Abstracts during the last term?" An issue in such cases, of course, is whether the student or the librarian is better able to determine the educational utility of the instruction. Johnson is assuming that the librarian must be, although even some librarians would disagree.

Another common use of questionnaires is to evaluate impersonal teaching mechanisms, usually "point-of-use" products such as computer-assisted instruction or audiovisual presentations. The programs often ask the user to fill out a nearby questionnaire and leave it at a designated spot. Not surprisingly, response rates to this appeal are usually quite low. At one institution, over a 14-month period, surveys of audiovisual programs received a response rate of between 4 and 6 percent. Undaunted, the evaluators went on to draw the conclusion that "while these are not sufficient response rates to be statistically significant, it can be said that response to the questions which attempted to
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assess the value of this method of orientation indicated an almost total acceptance, in fact preference, for this method of instruction."

Finally, like objective tests, surveys are occasionally used to "pre-test," either diagnostically or as a way to determine the effect of instruction over a relatively long time. Frick at the University of Colorado-Colorado Springs and Werking at Lawrence University each conducted a survey to establish a baseline against which to measure progress when a similar survey was taken in the future.63

Illuminative Evaluation

"Illuminative" evaluation has emerged among some instruction librarians in Europe, although there are as yet no reported cases of its use in the United States. This method deemphasizes the initial formulation of goals or objectives, and stresses instead participant observation and what Fjallbrant has termed "the expression of unexpected results....Research is focused on what is actually happening in response to the innovation."64 As a part of her evaluation at Chalmers University, students and faculty were interviewed about their participation in bibliographic education, but to what extent it is difficult to determine, given her sketchy description.65 From Britain, Harris reported on the use of illuminative evaluation in an unusual research project, the Travelling Workshops Experiment of the Newcastle-Upon-Tyne Polytechnic Library. In that instance, evaluators wished to "produce insights rather than test hypotheses," and they relied heavily upon what Harris described as "subjective assessment," using chiefly observation and interviews.66 It is too early to tell whether use of illuminative evaluation as such will grow to play a significant role in user education, but its disaffection for emphasizing quantitative methods seems to be part of an emerging trend among instruction librarians.67

Statistical and Other Problems

It has long been fashionable to call upon librarians to learn about statistical methodology and research design, and evaluation of user education is one area that no doubt would profit from greater expertise and sensitivity. Some of the better evaluators have drawn with good effect upon the statistical knowledge of their colleagues in the local academic community.68 Yet even some of these, as well as others, have been insufficiently judicious in their investigations or reporting. One recent evaluation sought to demonstrate that sixty-seven students who
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on the pretest had responded to an attitudinal question at the lower (negative) two places of a five-point scale, showed "a strongly positive pattern of change" on the post-test. Actually, the majority of these registered either no change or a change in attitude toward the lowest point on the scale. No mention was made of the more than 100 respondents who had registered somewhere in the top three places on the scale; it would be interesting to learn whether as a group they had "improved" in attitude, stayed the same, or declined on the scale.69 Also suspect are the returns from voluntary questionnaires; response rates are almost never given. One recent article mentions "a subjective questionnaire filled out voluntarily by students taking the workbook....Questionnaire results were very positive."70 The dangers of inference from such self-selected respondents are obvious. Another related problem is generalization on the basis of low response rates. One institution with a well-known user education program arrived at conclusions on the basis of responses to a questionnaire from 23 percent of 500 randomly selected seniors.71 To its credit, this library was apparently seeking to measure impact over a longer term than one semester or a few minutes.

Some of the problems relate to a fact now receiving greater attention: evaluation of user education is not only time-consuming, it is also a tough and tricky business.72 Psychologist Richard Johnson, speaking to a group of instruction librarians, made the point: "I can offer you no magic recipe to follow, no algorithm to learn, no ritual to perform which will insure that your instructional program will be automatically, adequately evaluated."73 Indeed, psychologists and other social scientists are lacking such algorithms for the more general field of evaluation research. Cottrell has observed, "One gets the impression that what passes for evaluative research is indeed a mixed bag at best and chaos at worst," while Suchman agrees that the field "is notable for its lack of comparability and cumulativeness of findings."74 Knapp's report of the elaborate Monteith pilot project comments more than once on the difficulties of controlling variables such as different assignments, and students researching different topics and hence following different search strategies.75 Moreover, as Suchman observes about evaluation generally, "the process...is highly complex and subjective."76 At Texas, Burton received different advice about testing from six different departments on campus and concluded, "Research design is clearly as much an art as a science!"77 Moreover, the teaching/learning process itself is very complex and subtle. Academics are hard-pressed to measure long-term gains in the mastery of more traditional subjects, such as philosophy and history. Perhaps some relief, substantive as well as
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psychological, is to be derived from the recognition that because evaluation is so complex, no single tool or method can satisfactorily gauge a program's total effectiveness.78

An even more fundamental problem for evaluators of user education is the lack of consensus about which library and bibliographic skills need to be transmitted to students, and the related disagreement on what to measure if success in the enterprise is to be determined. No single theme in the literature of evaluating bibliographic instruction is more pervasive than this complaint about the profession's lack of agreement on objectives. The absence of consensus is often significant not only within particular colleges and universities, but also within particular libraries, a point that has received insufficient attention.79 Moreover, reports on evaluation from individual campuses often fail to state the program's objectives, and the reader must infer them. Yet the problem is much more acute at the national/professional level.80 At a 1973 evaluation conference, Kirk declared: "The most important need in library instruction today is to have objectives. We simply do not have an adequate set of objectives."81 The absence of professional consensus on objectives means the absence of standardized tests or other forms of standardized evaluation.82 In his study of the library skills of future teachers, Perkins lamented that testing would be easier if librarians could agree upon "what knowledge is necessary to make full use of the resources contained in the library."83 At the same time, he showed how remote such agreement is when he included among a "good" test's characteristics "that the individual taking the test finds it interesting and enjoyable so that he will cooperate," and when he asserted (correctly or not) that many librarians considered "an understanding of the Dewey Decimal Classification System...a necessity for intelligent library use."84

Without standardized measuring tools and agreement on objectives, instruction librarians lack norms, whether for assessing a student's bibliography, answers on an objective test, or ratings tabulated from a questionnaire. At one institution the librarians concluded that because "the mean scores for Groups A and B indicated above 56 percent of the responses were correct, it is evident that both lectures and programmed methods have merit."85 By the standards of many college professors, however, 60 percent is barely passing, and at another institution the students scored better than 60 percent on a pretest.86 At Penn State the librarians chose 70 percent as the minimum score to indicate "satisfactory library skills," while at the University of Richmond 80 percent was passing.87

On the other hand, the lack of norms at the national/professional level need not hinder local efforts. Professors in many disciplines have
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for years been evaluating essay exams, research papers and bibliographies, master’s theses, and other student work, all in the absence of national guidelines.

Questions of Proof

Several reasons for measuring the impact of bibliographic instruction involve justification of one kind or another, and there is considerable attention in the literature to “proving” the worth of instruction. Miller believes that “librarians are continually handicapped by the lack of substantive proof as to what library use instruction will really do for students,” while Benson asserts more specifically that “proof must be in the form of aggregate statistical data, not individual anecdotes.”8 The recent appearance of several articles showing the use of objective tests to measure the impact of instruction is an attempt by librarians to provide more “objective” or “scientific” evidence, either of progress or of the relative value of different instructional strategies. The principal theme of Hardesty’s article is captured in his quotation of a sentence from Suchman: “All social institutions or subsystems, whether medical, educational, religious, economic, or political, are required to provide ‘proof’ of their legitimacy and effectiveness in order to justify society’s continued support.”89

Yet there is an important difference between demonstrating statistical significance and educational significance. One must ask whether the great concern with “proof,” defined as statistical significance, is not much too narrow and perhaps counterproductive. It leads to measurement of the most basic levels of instruction, and may channel instruction itself in the same direction. While the administration at one college was sufficiently impressed by a program’s gains (and certainly, it is far more important what the local community thinks than what professionals in other locales may prefer), an increase in the average number of correct test answers from 12.2 to 14.9 on a scale of 20 would not convince all administrations that bibliographic instruction was ipso facto worth the thousands of dollars it was consuming, whether the gain was statistically significant or not.90 Brewer and Hills, among others, provide a healthy note of caution amid the calls for quantification by observing that the attempt to be too “scientific” has had drawbacks, most notably in the “universal adoption of evaluation strategies which are perhaps not those most fitted for the purpose.”91 They refer rightly to “the complexity and subtlety of the teaching and learning process,” and to the difficulty of measuring with overly narrow methodologies objec-
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tives that are worth attaining. Parlett has criticized very well the "agricultural-botany paradigm":

By imposing its own pattern and assumptions, the paradigm forces people to oversimplify, almost to the point of rendering the data meaningless. Conceived originally with massive samples and good controls in mind, it is nevertheless regarded as the model to be striven for, even if numbers are small; even if research situations are idiosyncratic in the extreme; even if random and uncontrollable factors intrude to a marked degree. Because it presents itself as objective, reliable, quantitative, and value-free, all—apparently—is forgiven.

Fortunately, some of the same individuals who call for "proof" use the term in a flexible manner. Miller believes that the well-regarded Earlham College instruction program "has proven that a course-related, sequential program of library-use instruction is feasible." Earlham has never undertaken to "prove" this quantitatively; it has satisfactorily demonstrated its worth, at home and abroad, and that is what Miller means. In a similar fashion, Miller counts the Eastern Michigan program a success, not on the basis of statistically significant evidence, but because the program has been incorporated into the university budget. Even Suchman, upon whom Hardesty relies to emphasize the importance of "proof" of legitimate activities, is also flexible when it comes to what passes for proof. Continuing where Hardesty left off: "Both the demand for and the type of acceptable 'proof' will depend largely upon the nature of the relationship between the social institution and the public. In general, a balance will be struck between faith and fact."

There are other dangers for instruction librarians in relying too much on statistical significance to prove the worth of a program, as demonstrated by the experience of sociologist George Conklin. Conklin helped develop an innovative introductory sociology course at a large private university in the Northeast. Although he was able to demonstrate statistically significant gains in learning by students, and although hitherto-declining enrollments grew from 155 to almost 300 within the year, the sociology department felt only lukewarm about the course, and significant opposition developed within the department to extending the innovations to another large course. Not long after, the department returned to the traditional method for handling large introductory classes, abandoning the innovations. "No one argued," wrote Conklin, "that the teaching changes had not been effective, only that they were not needed for beginners anyway." And he emphasized the importance of legitimizing innovation as a part of the academic prestige system.
Conclusion

The next few years should prove interesting for the evaluation of bibliographic education. For practitioners at the local level there is already much information available from which they can pick and choose to put together an instruction program, including evaluation procedures, designed to meet local needs. If they wish to gauge the impact of their program and perhaps also justify it to themselves and others, they will discover the variety of ways to go about it, that a spectrum of possibilities does exist. No consensus will quickly emerge at the national/professional level about the goals of instruction or, therefore, about what or how to evaluate. Interest in objective tests for more basic instruction or orientation will probably continue. For both these reasons, the literature will continue to contain complaints about the lack of evaluation, although they should be fewer, and more of these will almost certainly specify the absence of evaluation for higher-level instruction.

There is some reason to hope that more studies will address that need. Because of the reports that have appeared in the 1970s, those librarians interested in using objective tests to evaluate a program or compare methods of instruction have much with which to work. It is reasonable to assume that some research may now more satisfactorily come to terms with library use and its relation to bibliographic education, turning from the agricultural-botany paradigm to what Parlett has called the "social anthropology paradigm." Kirk and Knapp, in particular, have made good beginnings in evaluating performance, and instruction librarians should and probably will travel farther down that road. How much farther they will be able to go is an open question, considering the inherent difficulties noted here.

References

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4. Hernon, Peter. “Library Lectures and Their Evaluation: A Survey,” _Journal of Academic Librarianship_ 1:16, July 1975. In a study devoted to documents instruction, Whitbeck and Hernon found that 80 percent of the programs were not collecting such data. See Whitbeck and Hernon, op. cit., p. 7.


8. Fjallbrant, op. cit., p. 84.


17. Werking, op. cit., p. 100; Kirk, “Bibliographic Instruction,” op. cit., p. 12; and Farber, Evan I. “Library Instruction Throughout the Curriculum: Earlham College
Program.” In Lubans, Educating, op. cit., p. 159.
27. Ibid., p. 316.
28. Phipps, Shelley, and Dickstein, Ruth. “The Library Skills Program at the University of Arizona: Testing, Evaluation, & Critique.” Journal of Academic Librarianship 5:294-14, Sept. 1979. In this respect, their article is a significant improvement over many which leave the reader guessing about how well students, before and after instruction, fared on particular questions.
35. See Young and Brennan, op. cit., p. 23; and Jamison, et al., op. cit., p. 55.
38. For additional criticism, see Brewer and Hills, op. cit., p. 57.
41. Burton, op. cit., p. 106; and Young, op. cit., p. 7. Not all tests are equally vulnerable to this criticism. More than other writers, Hardesty took considerable care to explain how he and his colleagues established reliability for their test at DePauw. See Hardesty, et al., op. cit., pp. 311-12.
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42. Young, op. cit., p. 7.
44. Phipps and Dickstein, op. cit., p. 206; and Hardesty, et al., op. cit., p. 310.
46. Burton, op. cit., p. 100.
49. Brewer and Hills, op. cit., p. 57; and Fjällbrant, op. cit., p. 86.
52. Fjällbrant, op. cit., pp. 91-92.
60. Johnson, op. cit., p. 35.
63. Frick, op. cit., p. 101; and Werking, op. cit., pp. 107, 111-17. See also Paterson, Ellen R. “An Assessment of College Student Library Skills,” RQ 17:226-29, Spring 1978, for a useful variation. Paterson used as a diagnostic pretest an open-ended question, asking students what library sources they would use to compile a bibliography on certain subjects. Such a method would probably be worthwhile in a pretest/post-test arrangement seeking to judge the impact of instruction.
64. Fjällbrant, op. cit., p. 86.
65. Ibid., p. 92.
67. Ibid.; and Fjällbrant, op. cit., p. 86.
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70. Phipps and Dickstein, op. cit., pp. 206, 214.
71. Miller, op. cit., p. 60.
72. Brewer and Hills, op. cit., pp. 63-64.
73. Johnson, op. cit., p. 32.
74. Cottrell, Leonard S., Jr. "Foreword." In Suchman, op. cit., p. viii; and Suchman, op. cit., p. 27.
75. Knapp, Montefith, op. cit., pp. 147, 152.
76. Suchman, op. cit., p. 11.
78. Glogoff, op. cit., p. 430; and Fjallbrant, op. cit., p. 87.
79. Werking, op. cit., pp. 101, 109. The problem is by no means unique to librarians. According to Parlett, "it is rare indeed for teachers even to approach agreement on objectives" (Parlett, op. cit., p. 147).
81. Kirk, "Bibliographic Instruction," op. cit., pp. 10-11. The "guidelines" formulated in 1975 by the ACRL Bibliographic Instruction Task Force are an attempt in this direction, but they have yet to serve directly as the basis of reported evaluation.
83. Perkins, op. cit., p. 50.
84. Ibid., pp. 48, 52.
85. Phillips and Raup, op. cit., p. 423. See also Whilden, op. cit., p. 17.
86. Hardesty, et al., op. cit., p. 313.
89. Hardesty, et al., op. cit., p. 309; and Suchman, op. cit., p. 2.
90. Hardesty, et al., op. cit.
91. Brewer and Hills, op. cit., p. 57.
92. Ibid., pp. 60-61.
94. Miller, op. cit., p. 58.
95. Ibid., p. 61.
96. Suchman, op. cit., p. 2.
98. Brewer and Hills, op. cit., p. 60.
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