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, 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. 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. A 1978 book by Fjällbrant and Stevenson is a useful, but somewhat simplified, how-to manual for beginners.
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
Structuring Services and Facilities

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 conferences. There are many other modes of instruction. For the most complete 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 bibliographies. 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 personality 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 questions. 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
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.\(^\text{17}\)

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.\(^\text{18}\)

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;\(^\text{19}\) 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.\(^\text{20}\) 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.\(^\text{21}\) 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.\(^\text{22}\)

Librarians have also developed several types of teaching materials.
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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,23 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.24 Now librarians can purchase commercially illustrated guides to reference sources to use as point-of-use aids.25

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.26 (One exception is the continued work with PLATO.27) 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.28 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>31,074</td>
<td>27,573</td>
<td>-11.3</td>
</tr>
<tr>
<td>Search</td>
<td>4,075</td>
<td>11,573</td>
<td>184</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
Structuring Services and Facilities

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-
University 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.37 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 publicaton 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
Structuring Services and Facilities

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 reference. To achieve such a position, its proponents must avoid the temptation to settle for simple solutions to the problems of initiating and maintaining bibliographic instruction programs. Instead, those committed to such programs must use their creative energies to work through the political organization inherent in each institution, and to utilize the best thinking on the design and delivery of instruction. At all times, librarians must keep the fundamental purpose of their bibliographic 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.


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.


34. Renford, op. cit.


37. Stevens and Gardner, op. cit.

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