ACKNOWLEDGEMENTS

A number of individuals have contributed to the completion of this volume of proceedings and are deserving of my gratitude for their assistance. Maryhelen Garrett, who served as conference coordinator, worked closely with each of the authors to inform them as to submission requirements and to see that papers were received in a timely manner. Linda Neely, as she has with earlier editions of these proceedings, read every paper and worked vigorously on proofreading; Linda's contribution can not be overemphasized. Judith Porter coordinated all the word processing of this document while engaged with her regular secretarial duties. As good secretaries so often do, Judi demonstrated those priority-setting abilities which are so important to the successful completion of projects such as this one. Judi was assisted in her assignment by Janet Souder, Karyn Elles, and the very special efforts of Nancy Morrow. Dennis Pompilius handled all of the graphics work shown here and was assisted in his efforts by Brenda Roberson.

Kelly Gordon owns a share of this publication for without her help during the last six years and most particularly during 1987/88, this would have been much more difficult project to complete. Robert Trullinger, the Director of the Institute for Personal and Career Development, is more than deserving of my thanks for without his on-going and substantial support for C.M.U.'s off-campus library services and the Off-campus Library Services Conference it is unlikely that this volume would have been produced.

Central Michigan University's Off-campus Library Services staff deserves my most sincere thanks for without its support neither the conference nor these proceedings would have been possible. The members of that staff at the time of the Charleston conference were:

- Monica Collier: regional librarian
- Justine Fiorillo: administrative aide
- Maryhelen Garrett: regional librarian
- Wanda Graham: senior clerk
- Barbara Kirchner: library specialist
- Gloria Lebowitz: regional librarian
- Barb McGuire: senior clerk
- Linda Neely: bibliographic specialist
- Virginia Witucke: regional librarian

Barton M. Lessin
Detroit, Michigan
April 15, 1989
PLANNING GROUP
for the
OFF-CAMPUS LIBRARY SERVICES CONFERENCE
(Charleston, South Carolina, October 20-21, 1988)

George Bates, Jr.
Extended Degree Programs
Central Michigan University

Evelyn Leasher
Clarke Historical Library
Central Michigan University

Raymond K. Fisher
The Library
Department of Extramural Studies
The University of Birmingham
Birmingham, England

Marcie Kingsley
Law School Library
George Mason University

Yuen-Ching Sin Fu
The Library
Mount Royal College
Calgary, Alberta, Canada

Susan Swords Steffen
Joseph Schaffner Library
Northwestern University

Maryheleen Garrett
Off-campus Library Services
Central Michigan University

John Weatherford
Emeritus Director of Libraries
Central Michigan University

Craig Grimison
Dixson Library
The University of New England
Armidale. N.S.W.
Australia

A. Virginia Witucke
Off-campus Library Services
Central Michigan University
Fairfax, Virginia

Ms. Garrett was the Conference Coordinator and chairperson of the Conference Planning Group.
TABLE OF CONTENTS

Jean Alexander and Susan Swords Steffen
Library Services for Part-time Management Students:
What They Want and What They Need..................... 1-12

Patricia J. Appavoo and Lorin Hansen
Profile of the Distance Education Library User........... 13-42

Michael Binder, Harley Brooks and Sally Ann Strickler
The Development of Off-Campus Library
Services at Western Kentucky University............... 43-50

Geneva L. Bush and James A. Damico
Library Services for a Remote Campus................... 51-65

Lisabeth Chabot
Library Orientation for Nonresidential Adult Students.... 66-70

Eileen Chalfoun
After Automation -- What Next?......................... 71-77

Judith A. Copler
Reaching Remote Users--Library Services Through
a Systemwide Computing Network....................... 78-84

David Michael Davis and Anne-Marie Secord
Unconventional California University
Develops a Successful Model for Fast-Paced
Library Service to Extended Campuses................. 85-90

Evan Ira Farber
On or Off Campus:
The Prospects for Bibliographic Instruction........... 91-100

Jane Ferguson and Jordy Johnson
A Comprehensive Approach to Community
Information Services........................................ 101-120

Yuen-ching Sin Fu
Don't Plan Around it. Plan for it! A Canadian Approach
To Solving Some Off-campus Library Service Problems.... 121-133
Maryhelen Garrett
Going to the Head of the Class: The Development and Implementation of an Instructional Materials Support Collection for Off-campus Faculty.................. 134-155

Lois Gilmer
Document Delivery........................................ 156-166

Michael Haeuser and Janet Kinney
Managing Off-Campus Professional Programs at Liberal Arts Colleges....................... 167-178

Marianne D. Hageman
Off-campus Library Services to Graduate Students........ 179-188

Mary Jane Hamilton
Andragogy and the Off-campus Librarian.................... 189-200

Katherine J. Harig
Armed Forces Libraries in Adult Education............... 201-215

Martin Elliot Jaffe
The Adult Learner and the Public Library Career Planning Center: InfoPLACE and the 1980's..... 216-224

Jean S. Johnson
Delivery of Materials to Off-Campus Students and Faculty........................................... 225-256

Lori M. Keenan and Janet Ross Kendall
The Importance of Interlibrary Cooperation to Off-Campus Programs: A Case in Point......... 257-267

Barbara E. Kemp and Maureen Pastine
Developing Branch Campus Libraries: The Administrative Perspective........................... 268-274

Evelyn Leasher
Telephone Reference in an Off-Campus University Setting. 275-282

David T. Lewis
Local Library Co-Operation at a Time of Austerity: A Case Study from the United Kingdom........ 283-290

H. Maynard Lowry
Library Support for Off-campus Graduate Professional Programs at Domestic and International Sites........ 291-299
Terrence J. MacTaggart
An Accradiator's Perspective on Off-campus Library Programs .......................... 300-307

Kenneth E. Marks, Steven P. Nielsen, Bryan Spykerman, and Glenn R. Wilde
Extending Information and Educational Services to Rural Communities: The Intermountain Community Learning and Information Services Project ...................... 308-325

Anne J. Mathews
Accepting the Challenge:
Providing Quality Library Services for Distance Education Programs .................. 326-339

Carol M. Moulden
Evaluation of Library Collection Support for an Off-Campus Degree Program ............. 340-346

Gary Pitkin
Library Leadership in Off-campus Course Delivery ..... 347-356

Mary Louise Ponsell
A Study of Off-Campus Library Service as a Basis for Planning and Administration at a Private College in Delaware .................................................. 357-362

Sister Margaret Ruddy
InfoTrac and the Business Collection:
A Dynamic Duo for Off-Campus Programs ............................................. 363-386

Jeremy W. Sayles
Library Information and Materials Access Within and For the Georgia College Service Area ............... 387-409

Jean Sheridan
The What, Why and How of Collaborative Learning:
And its Importance for the Off-Campus Student ........................................ 410-418

Alexander L. Slade
Establishing an Off-Campus Library Service for Remote Educational Centers: Variables and Potentials .......... 419-438
Cheryl B. Truesdell
Building Bridges:
Resource Sharing at Indiana and Purdue Universities' Fort Wayne Campus .................................. 439-443

Virginia Witucke
Measuring Library Effectiveness.......................... 444-463
Library Services for Part-time Management Students:

What They Want and What They Need

Jean Alexander and Susan Swords Steffen
Northwestern University

Designing effective library services for part-time graduate management students requires an understanding of their unique library and information needs. Their educational backgrounds, learning styles, work and personal lives differ from those of the traditional students for whom most academic library services have been designed. Not only are they adults attending classes in a nontraditional setting, but they are studying a subject that is not a traditional academic discipline. Library skills and research strategies learned in their undergraduate studies may not serve them well in their new field, yet time constraints demand that encounters with library resources and services be efficient and effective. Resources and services that do not meet the needs of these students directly will simply not be used.

At Northwestern University, the Joseph Schaffner Library serves adult students in several evening extension programs based on the downtown campus including the Managers' Program of the J.L. Kellogg Graduate School of Management. The 1200 students in this highly prestigious part-time evening program earn a Master of Management degree fully equivalent to that offered by the daytime program on the main campus. During the last few years the Schaffner Library has developed new services designed to meet the needs of part-time adult students on an extension campus: use of the system-wide on-line catalog, intercampus delivery of books and articles, on-line searching services, end-user searching, enhanced reference materials and services, bibliographic instruction, research consultations, and writing tutorials. Although by the spring of 1987 use of these services in the other two programs (University College and the Medill School of Journalism) was well established and growing, Managers' Program students made little use of library services.

Could this be because the graduate management curriculum did not require use of library resources? This seemed unlikely, since the full-time management students on the Evanston campus were heavy users of the University Library. Since almost all Managers' Program students held full-time jobs, were they using libraries at or near their place of work? What exactly were the library and information needs of students in this program? How could our
delivery of services to them be improved?

In order to answer these questions and gain a better understanding of the specific needs of part-time graduate management students, a variety of needs assessment methods have been employed. First, a written questionnaire was distributed to all Manager's Program students registering for spring quarter 1987. Then, in the fall of 1987, the Library responded to the questionnaire results with outreach and new services for management students, which in turn generated increased communication with students and understanding of their needs. Throughout the 1987-88 academic year, observation and informal interviews with students have yielded further insights. Finally, a follow-up survey is being conducted during spring quarter 1988 by graduate management students from the Evanston campus as a project in a market research course.

This paper will begin by summarizing what the Schaffner Library has discovered about its part-time management students, their patterns of library use, and their information needs. It will then describe the steps the library has taken to deal with these needs, and evaluate their effectiveness. It will conclude with a discussion of the implications of Schaffner's experience for other off-campus libraries serving part-time management students.

Questionnaire and Interview Findings

Library Use Patterns

Adult management students are not accustomed to using libraries to find business information. They rely on the work environment to provide data, context, and meaning. They will interview, call, or write directly to likely sources of information rather than consult published sources. This is partly because of the premium on currency in the business world, but it also reflects a practical as opposed to academic approach to problem-solving. It may also be a more comfortable and convenient strategy than using libraries, and in many cases may be a more effective one. Schaffner's questionnaire revealed that management students use libraries at work for their course assignments to a significant degree (24.1%). They often prefer to buy the materials they need rather than borrowing them or spending time in the library. Needed materials were obtained at a newsstand or bookstore by 12.8% of respondents, and students have vocally expressed a preference for buying required course materials rather than having them on reserve.
Nevertheless, a large majority of students in the Managers' Program do use the Schaffner Library when they need to find library materials for their courses (82.9%, compared with 41% at University College). Sizable minorities also use other Northwestern libraries: the Law and Medical Libraries adjacent to Schaffner and the University Library at Evanston. Only 6.6% use libraries of other colleges or universities, whereas 13.3% use the Chicago Public Library (whose main branch is reasonably close to Schaffner) and 22.2% use suburban public libraries. A wide variety of different academic and public libraries are used, but those with good business collections are used more often (indicating students' ability to discriminate).

Almost half of Managers' Program students use the Schaffner Library on days when they do not have class, and 26% use it more than five times per quarter (University College, 22%). Schaffner is located in a booming residential and commercial neighborhood convenient to Chicago's Loop. An increasing number of management students live in the immediate area, 42% less than a half hour away.

A number of students are regulars at the library, even on weekday afternoons, suggesting that not all management students have full-time jobs with normal hours. But most of them use Schaffner after work and before class (5 to 6:15 p.m.), during class break, after class (until closing at 10 p.m.), and on weekends. The most frequent response to the questionnaire was a request for extended hours, especially Sunday hours. Interviews have also revealed that students used the University Library in Evanston late in the evening. Two key characteristics of library use patterns, therefore, are that use is intensive at certain predictable times and that use is concentrated in so-called off-hours.

Reasons for Using the Library

The most common reasons for using the library are for study, access to reserve materials, use of the microcomputer laboratory, and photocopying. Textbooks, monographs, articles, cases, exams, sample papers, solutions, and floppy disks are often placed on reserve for management courses. Students usually photocopy reserve materials immediately before class or during break. They use the library for studying primarily before class, especially during midterm and final exam weeks. The microcomputer laboratory is used more steadily and for longer periods of time; students often use it on weekends and on evenings when they do not have class.
Another reason for using the library is to find information outside required reading lists. There is considerable demand for certain business periodicals and reference materials. The questionnaire revealed that 23.4% had used the library to find books for papers and that 26.9% had used it to find articles for papers. It is not clear whether this response indicated use of indexes and/or the on-line catalog to identify materials, use of Schaffner’s collection itself, or both. Another question asked specifically about use of Schaffner’s reference sources (30.6% had used them within the last year), and current magazines and books (36.6% had used them within the last year).

The original questionnaire did not ask how many of the management courses required library research, what the courses were, or what kind of information was needed. We are still in the process of gathering this information, but a few major points are already clear. Library research is not necessary in most courses, and this is especially true of the required introductory courses. Library research is most likely to be required in courses on management strategy and organization, marketing, and international business. Certain professors are more likely to assign research papers or projects than others, regardless of the subject. When library research is required, information is likely to be wanted in quantity and in depth, and may be difficult to find.

Also, extracurricular use of the library should not be discounted. Managers' Program students use the library to explore career opportunities; to research companies for job interviews; to find out about new products and business trends; to keep up with current economic, legal and political developments; and to research problems encountered on the job.

Services and Materials Used

Our observations show that evening management students are regular readers of current newspapers and periodicals. They frequently consult standard company directories; investment, industry, and statistical sources; newspaper and business periodical indexes; annual reports; and computer and career books. They have caught on quickly to end-user searching of computerized databases (at Schaffner, *Business Periodicals Index* on CD-ROM, Wilssearch, and Business Connection). On the other hand, they rarely use dictionaries, encyclopedias, handbooks, bibliographies, biographical sources, or circulating books—not even those specifically designed for core business collections.

The questionnaire revealed low use of the new services that
Schaffner had developed specifically to meet the needs of adult part-time off-campus students. This came as no surprise, since management students had not yet been targeted for publicity or bibliographic instruction. While 25.7% had had a computer search done at some time in their lives, only 9.7% had had one done at Schaffner within the last year. Only 5% had used Wilsearch or InfoTrac, the end-user computer tools available at that time. Use of research consultations and delivery of books and photocopies from the Evanston campus had been even lower.

The low use of intercampus borrowing was somewhat puzzling considering the limited time that part-time adult students have to spend on library research. One of the cornerstones of the Schaffner Library's approach to off-campus library services is that preliminary research and identification of needed sources can be done at the off-campus library, and the materials delivered to the user there. The follow-up questionnaire being done by the marketing class will further explore this question. One hypothesis is that Managers' Program students hesitate to use intercampus loan because they are not confident that they will get the right materials and get them on time. If true, this would be a striking difference from the other adult students served by the library.

The low use of library computer searches by management students also needed further study. Was it because students were not doing term paper research? Was the $5 charge for a simple search an inhibiting factor (University College and Medill students had free searches subsidized by their respective programs)? Was there a need for more publicity? Bibliographic instruction? Perhaps a different kind of computer search service?

Even before the results of the original questionnaire were in, we had a partial answer to these questions. Demand for computer searches rose sharply during the spring and summer quarters of 1987, suggesting that many students had not known of the existence of the service. Demand has continued to increase as various types of publicity have made the service better known and the word has been spread informally. It can be said with confidence that a sizable number of management students do research that can benefit from computer searching. The question of fees is still being explored.

Student Opinions and Suggestions

One of the most interesting findings of the questionnaire was that Managers' Program students rated themselves lower in their knowledge of how to use libraries than did University
College students. Librarians would not have rated the two groups that way. To some degree it may reflect the students' high standards and expectations of themselves. It should not be assumed, however, that because management students are competent in other areas of life they have the library skills they need. Their research skills may be rusty or nonexistent, like those of other adult students. Library technology has changed radically in the past few years, and this can be just as alarming to a graduate business student as to an undergraduate in English. It may even be more of a barrier, since the business student is anxious to exhibit competence (he or she is, after all, already a practitioner in the field) and may be hesitant to admit ignorance or seek help.

Conversations with management students who are engaged in library research confirm their need for library instruction. As part-time students, they may go for several quarters without having to use the library, then suddenly be confronted with a major research project. They do not get the intensive practice that full-time students do, and they are more likely to forget what they have learned before it can actually be put to use. Communication among students is hampered by time constraints, age, and logistics. But while Managers' Program students recognize their need to know more about how to use libraries, they have a hard time defining what it is they need to know or how to go about learning it. Like other part-time adult students, they tend to be unaware of service possibilities and fail to use reference and consulting services.

The item on the questionnaire that asked "How likely do you think it is that you will be able to get the materials you need at the Schaffner Library?" was a double-edged question. Schaffner's collection is designed to provide basic reference and introductory materials, not support advanced research. The fact that students did not think that they were likely to find what they needed there could be nothing but a realistic assessment of the library's collection. On the other hand, it could reflect a failure to utilize the library effectively. What it did reveal, without question, was that the students had needs which were not being satisfied at Schaffner. These needs might be met by other libraries and information sources or by changes at Schaffner--or by a combination of the two.

The convenience, consistency, and efficiency of library services, physical facilities, and equipment are important to adult management students. One reason is that they have so little spare time. Another is that their program is competitive and they are ambitious. Their lives are stressful, and their encounters
with the library usually occur towards the end of a long workday. Furthermore, many of them are used to working in modern offices with up-to-date equipment and support staff. They want quick and efficient copy machines, handy change machines, and copy cards. They would use a copy service if it were available. They want multiple copies of reserve items so that they do not have to wait. They take advantage of the fact that floppy disks are for sale at the library. They are more likely to use telephone reference services and to request computer searches by telephone than the other students served at Schaffner.

The highly uneven pattern of library use by evening students makes planning for study space difficult. But these students definitely want quiet, comfortable spaces for individual study and small rooms for group study and discussion. Managers' Program students use the reading rooms for study, reading, and writing more than other students. They fill up the limited available study space at the Schaffner Library during the brief time between work and class.

The Library’s Response

It was evident that in order to better meet the needs of part-time management students, the library would want to consider innovations in the areas of library instruction; public relations, publicity, and liaison with students and faculty; collection planning and development; bibliographic access and interlibrary loan; cooperation with other Northwestern libraries; physical facilities and equipment; and improvement and coordination of computer services and instruction. Rather than attempting to devise a grand master plan for implementing change all at once, we have made many small changes and innovations over the past year, some more successful than others. Our experience has been that there is no simple way of meeting the needs of adult off-campus students. Instead, it is best to offer a variety of services, to reach out to students in a variety of ways, and to allow for differences in learning styles, levels of interest, and commitment.

In the area of library instruction, we have tried a number of approaches. Course-related bibliographic instruction is the Schaffner Library's preferred method of teaching the library. So, during the past year, we have visited two sessions of a Kellogg course on the management of international business in which there is a major research project. The instructional session takes place in the classroom, lasts about half an hour and includes a handout listing major reference sources at the Schaffner and
University Libraries, and discussion of on-line searching. As a result, a large number of the students in this course have used the library and requested computer searches. As we learn more about research components in Managers' Program courses, we plan to introduce additional instructional sessions.

A ten-minute presentation at a meeting of a required computer workshop has turned out to be an effective way of introducing basic Schaffner Library service such as the on-line catalog, computer searching, and intercampus borrowing. We hope eventually to make instruction in principles of database searching a component of this course. In the meantime, we have written a brief tutorial on CD-ROM searching which is distributed to students in the course.

Tutorials and other self-help tools, handouts, and signs, have proven to be a good way of teaching management students how to use the library. They will take the time—if they can choose their own time—to try out new tools and techniques. They will even hold on to handouts for a surprisingly long time, until a need arises. The Schaffner Library also provides several different forms of instructional aid in the computer lab: tutorials on disk, written tutorials, a variety of manuals and computer books, and personal consulting help.

Group instruction offered outside of regularly scheduled classtime has not been so successful. Because some students had suggested that the library hold orientations, we offered brief introductions to the library for management students, in the late afternoons for an entire week during fall quarter 1987. Attendance was minuscule. Managers' Program attendance at special "Introduction to the University Library for Adult Students" workshops held on Saturday mornings has also been poor. In general, it has been our experience that optional library instruction sessions are not an effective way of reaching evening students.

In the area of outreach, the Library has actively pursued contacts with Managers' Program students, faculty, and administration. The results have been exceptionally good, and there is a snowball effect. For example, the Library has obtained administrative support for an active educational and administrative role in the microcomputer lab. We were approached by a group of students who were establishing a student organization, and asked to discuss library services and lend our support. Through this group we have been able to reach a much larger number of students than would have been possible on our own. They hold meetings and elections, sponsor programs, and
publish a newsletter which now features a regular library column. Recent columns have been on CD-ROM, the Evanston Library orientation, computer searches, and the history of women at Northwestern's business school. The Library also produced a one-page handout on career research information which is distributed at career workshops sponsored by the student organization.

It was also at the suggestion of this group that the Library proposed a library survey as a project in a Kellogg marketing course. This proposal was accepted, and daytime students from the Evanston campus are now in the process of carrying it out. As peers of the students they are interviewing, they will be able to unearth opinions and ideas the Library has never thought of. It is also a significant step towards better communication between daytime and adult students, a longstanding concern of the evening students.

Since the original questionnaire was administered, use of computer information resources by Managers' Program students has greatly expanded. The Library has acquired the Business Periodicals Index on CD-ROM, which allows the flexibility and independence that adult management students want. It is used not only for research, but also for ready reference. The Library plans to acquire more CD-ROMS in the business field, perhaps with full-text retrieval. CD-ROM is an obvious boon to off-campus students in any field, but especially so in a field as heavily dependent on the current periodical literature as business.

The demand for simple $5 computer searches done by librarians (called minisearches) has continued to rise, undoubtedly due to the publicity achieved with handouts, bibliographic instruction, and word of mouth. Recently the Library issued coupons worth $1 off a minisearch. The coupons were printed in the management student newsletter, along with an article explaining computer searching.

The use of CD-ROM and end-user searching on Wilsearch and Business Connection have not led to a decline in a demand for paid computer searches by librarians. They have, however, allowed for a more appropriate use of computer tools. Librarians carry out the more demanding and unusual searches, after the students themselves have begun researching a topic. This again illustrates the principle that no single method can meet the needs of students. An array of services give users broad exposure to different methods of accessing information and their results.

Many of the concerns of the evening management students can
only be met in the long term and with additional outside funding. The Library needs to be physically renovated and modernized. The collection needs some additional reference serials and CD-ROMs. Better bibliographic access to area libraries is needed, along with a new approach to intercampus borrowing and document delivery that will appeal to management students. The use of the main University Library in Evanston by these students needs to be studied. More work also needs to be done on investigating their research patterns and information needs.

Conclusion

The outcomes of this needs assessment helped us to increase our understanding of the library and information needs of our part-time management students and to use that new understanding in designing services for them. While some of the results confirmed what we already suspected, some of what we learned surprised us and has caused us to rethink what we are doing.

First, Managers' Program students do have information needs associated with their courses, their jobs, and their personal lives, but often devise their own means of getting the information they need rather than using a particular library. Traditional library policies which place large numbers of items on reserve or limit the circulation of certain items may not serve these students well. Rather than adjusting their schedules to fit with library policies students will find other means of securing what they need.

Second, time is at a premium for these busy, highly stressed students. Bibliographic instruction must be provided at the point of need and during regularly scheduled class time, or it will not only be ineffective, it will be ignored. Yet services which save time will only meet student needs if those services are also perceived as professional and of high quality. These students expect their school environment to operate as efficiently and comfortably as their work environment. The librarian's role of friendly helper, which is appropriate in dealing with many part-time adult students, is not as effective with management students as the role of professional colleague with specialized expertise.

The ability to satisfy their information needs independently on their own time schedule is extremely important to these students. CD-ROM and other end user searching options are popular, and most students seem to prefer using them on their own with a minimum of instruction. Many are quite willing to make
trips to the Evanston campus library to find their own materials, and some prefer this to using the Library's intercampus delivery service. They use a wide variety of less convenient and less accessible libraries to find the information they seek. Unfortunately, these behavior patterns often put these students beyond the help of librarians when they do need it. Libraries need to design services which facilitate this independence, but also allow students to achieve a better result in less time.

Part-time management students are an important group in colleges and universities today, and it is necessary for academic libraries to plan to meet their information needs. By playing to the strengths of these students, academic libraries can significantly enhance their educational experience and prepare them for a future of independent learning.
References


Profile of the Distance Education Library User

Patricia J. Appavoo and Lorin Hansen

Athabasca University

Athabasca University (AU) in Athabasca, Alberta, Canada delivers university courses by distance education only. Courses are available through home study, teleconference and seminar support. Students are assigned to a telephone tutor in home-study courses to discuss the course material and assist with assignments while the teleconference and seminar support tutors provide similar assistance to students registered in those modes.

The total number of students registered is near 9,000. The vast majority of students register in one course at a time but some students take 2 or more courses at a time. Thus, course registrations average 14,500 per year.

The profile of the student body is quite interesting. Two-thirds of all students are between 25-44, one-quarter are between 18-24, and the remaining 10 percent are 45 and over. This age distribution has been constant for several years. On the other hand the number of female students has been increasing over the years and currently women represent two-thirds of all registered students.

The province of Alberta has two major cities, Edmonton and Calgary. Both cities have a university, community and vocational colleges and other post-secondary educational institutions. Nevertheless, 50 percent of AU students are from Edmonton and Calgary. Another 20 percent of students are from other cities and towns of Alberta and 30 percent of the students are from other provinces in Canada.

The University offers 150 courses and students can register in a Bachelor of Arts (BA), Bachelor of General Studies (BGS) or Bachelor of Administration (BAdmin) programme, in "transfer programmes" or as non-programme registrants. Ten percent of students are registered in the BA, 4 percent in the BGS, 20 percent in the BAdmin and the remaining 66 percent register for other reasons. Of the registrants in the "other" category, 11 percent are in nursing transfer, 9.4 percent in general transfer (usually to another university) and 65.5 percent register as non-programme students.

The library at Athabasca University offers a full range of
services to its students. There is toll-free telephone request service, prepaid return postage on all materials sent out and reference services including ILL and on-line searching where required. Information about library services is included in all course materials packages and in AU publications which circulate to students and tutors. In 1987/88, 7635 items were circulated to students which represented 37.4 percent of total circulations. Two thousand and seven hundred packages of print material and 2200 packages of AV material were sent out to students and on interlibrary loan.

Students usually request material from the supplementary materials lists included with their course materials. Some courses have open-ended essay topics and in those cases, students request material on a specific subject. The library staff gathers together a representative group of materials and sends it out to the student.

While AU Library provides an excellent service to students we often ask ourselves if there is more we can do to assist students. There is also a nagging question about whether students actually know about the Library. Coupled with that question is an interest in knowing what other libraries (if any) students might be using for their AU course work. With these things in mind we decided to do a survey of AU students to find out from them how they gathered information, how they used libraries and what kinds of libraries they used and lastly how they assessed their library service from AU. A copy of the survey instrument, which was handled by telephone, is attached. We also thought it would be valuable to analyze the actual telephone requests received from students to determine the subject area emphasis of those requests and related information. The telephone survey results are presented in Part I and the request form results are presented in Part II.

Part I Telephone Survey

Survey Methodology

The survey design was organized by the Institutional Studies Unit of the Centre for Distance Education at Athabasca University. A sample of 300 students, currently registered in all courses except accounting and computer science, was randomly selected for a telephone survey. Students in accounting and computer science courses were not included because they represent a high proportion of total registrations (1250 of 9000 students) and the courses do not require any supplementary reading material. In that sense, we weighted the sample towards disciplines which potentially would
use the Library services. The telephone survey results were cross tabulated with information already available in the Centre about the students on their location, gender, academic programme and number of courses taken.

There was a 72 percent response rate to the questionnaire. There were some differences between the survey sample and the total student body. There were higher percentages of women and of students from southern Alberta in the survey than in the total student body. In the programme breakdown the survey sample had a higher percentage of BA and BGS students than in the total student body and lower percentage of BAdmin, Nursing and Social Work and non-programme students than in the total student body.

<table>
<thead>
<tr>
<th></th>
<th>Total Students 1987 (Percentages)</th>
<th>Survey Sample (Percentages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>33.0</td>
<td>28.5</td>
</tr>
<tr>
<td>F</td>
<td>66.0</td>
<td>71.5</td>
</tr>
<tr>
<td>Location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edmonton</td>
<td>26.0</td>
<td>24.0</td>
</tr>
<tr>
<td>Calgary</td>
<td>21.2</td>
<td>19.0</td>
</tr>
<tr>
<td>N. Alberta</td>
<td>14.2</td>
<td>14.7</td>
</tr>
<tr>
<td>S. Alberta</td>
<td>13.7</td>
<td>24.0</td>
</tr>
<tr>
<td>Sask.</td>
<td>7.5</td>
<td>8.0</td>
</tr>
<tr>
<td>Other Provinces</td>
<td>17.5</td>
<td>10.3</td>
</tr>
<tr>
<td>Programme</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-degree</td>
<td>47.0</td>
<td>42.7</td>
</tr>
<tr>
<td>Nursing and S. Work</td>
<td>19.0</td>
<td>9.2</td>
</tr>
<tr>
<td>BA</td>
<td>10.0</td>
<td>22.0</td>
</tr>
<tr>
<td>BGS</td>
<td>4.0</td>
<td>10.2</td>
</tr>
<tr>
<td>BAdmin</td>
<td>20.0</td>
<td>15.9</td>
</tr>
</tbody>
</table>

In setting up the survey there were some assumptions that we wanted to test. First we assumed the use of the AU Library would depend on the courses the student was taking and the access the student had to other library resources. We further assumed that students outside Edmonton and Calgary, Alberta's two major cities with large university and public libraries, would use AU Library more than students from Edmonton and Calgary. We assumed there might be a higher propensity for women students to use AU Library because we knew a high percentage of our women students were married with small children (34% of all students at AU have
children under 18 at home) and hence more likely to use mailing facilities. Lastly, we assumed that the more courses a student had taken, the greater would be the student use of the AU Library.

Results

Sources of information for students.

Respondents were requested to indicate where they went for information when working on their course projects and assigned readings. A number of possibilities were given including discussions with other people, with the course tutor, books from a library at work, from a public library, from a friend or from the student's personal library. Also included were references from the course text or the AU course study guide. Respondents were asked to rate each of these sources by categories of never, seldom, sometimes, often and always. In writing up the results the three categories of "sometimes," "often," and "always" were collapsed into one group for comparison purposes. The data are presented in Table 1A and 1B.

Not unexpectedly, the course tutor was the most frequent source of information for the student (83.4 percent of respondents). (See Table 1A.) The next highest source of information was books from other libraries which was identified by 66.3 percent of respondents. Just over 50 percent of respondents also identified books from their own library and discussions with other people as sources of information from "sometimes to always." References from study guides and course texts rated below tutors, library books and people as sources of information. Given the emphasis upon study guides and course texts in distance education this is an important finding.

The above variables were cross-tabulated for location of student, gender of student and programme of study. The data is presented in Table 1B with the variables presented in order of importance from highest to lowest with "books from work" and "books from another person's library" eliminated. In terms of location there were no statistically significant variations in sources of information. However, some percentage differences in the pattern are evident. Southern Alberta and Saskatchewan students had a greater inclination to discuss with the tutor (87.5 and 91.7 percent respectively as against the average of 83.4 percent). Students from Calgary and southern Alberta were more
inclined to use books from other libraries (75.5 and 72.2 percent respectively) than the average of 66.3 percent. Northern Albertans were the most inclined to seek information from other people (63.6 percent against the average of 52.7 percent), while Calgarians used their own library, the study guide and the course texts more than the average for those variables. Students from southern Alberta were also more likely to use the study guide and the course texts than the rest of the respondents.

Gender did not make a significant difference in the sources of information used except that men indicated a slightly greater use of the tutor (85.7 percent of men as against 82.4 percent of women) and women used books from other libraries more than men (70.1 percent of women against 58.3 percent of men).

The programme of study showed a greater variation in pattern on these variables. BAdmin students showed a higher than average use of the tutor, (89.3 percent against the average of 83.4 percent). Nursing and Social Work, BA and BGS students all used books from other libraries more than the average of 66.3 percent (77.7 percent, 75.4 percent and 80.0 percent respectively). Nursing and Social Work and BGS students discussed with other people more than the average (77.8 and 63.3 percent respectively against 52.7 percent) and Nursing and Social Work, BA and BGS students all used their own libraries more than the average (59.2, 59.9 and 66.7 percent respectively against 52.7 percent). BA and BGS students used both the study guide and course text more than other students. This finding coupled with the lower overall use of study guide and course text for information would indicate that certain kinds of courses such as in humanities and social sciences put more emphasis on the study guide and text for assignment purposes.

From the AU Library point of view the identification of the tutor as the major source of information for course work is important. If the library wants to increase student awareness of the library and its services, then educating the tutors about the library would be the most efficient vehicle. It is also important that the AU Library be aware that while the study guide and course texts were cited as sources of information by only 46.7 and 45 percent of respondents, students in the BA and BGS programmes used these sources to a much greater extent than those in the other study programmes. Lastly, the higher percentage responses of Nursing and Social Work students on several of these variables would indicate a greater propensity to seek out information from all sources by these students.

Of the 300 respondents, 70 (23.3 percent) answered "never"
to the question of whether they used a library as a source of information. Another 59 respondents (19.6 percent) indicated that they "never" used AU Library for materials. These 129 respondents were asked whether they were aware that AU had a library they could use on the chance that the general awareness of library services might be deficient. However, 105 of those 129 respondents said they knew of the AU Library. To put it another way, 19 respondents (6.3 percent) of all respondents did not know AU had a library service for students, while another 5 students did not answer this question.

Among the 105 students who were aware of the AU Library facilities yet did not use them, 101 also responded to a further question about why they had not used AU Library. Sixty-six students (65.3 percent) indicated there was no need to use AU Library. Lack of convenience was mentioned by 9 students (8.9 percent); 1 person was not satisfied with AU Library and 25 students (24.7 percent) mentioned "other" reasons.

Use of Libraries.

Those students who indicated they used a library as a source of information were asked to indicate the type of libraries they used. The choices were public libraries, local school library, community college libraries, library at work, other university libraries and AU Library. These responses were then cross-tabulated for location, gender, programme of study and number of courses taken. In the analysis presented here local school libraries, community college libraries and libraries at work have all been eliminated because the "never, seldom" responses ranged from 70 percent and above in these categories.

Table 2 presents the percentage responses to use of libraries by location of student. The use of public and university libraries was highest for students in Edmonton and Calgary. This was to be expected as both cities have excellent public libraries and major research university libraries.
Table 2

Use of Libraries by Location - Percentages (n=233)

<table>
<thead>
<tr>
<th>Location</th>
<th>Public Library</th>
<th>Other Univ. Library</th>
<th>AU Library</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edmonton</td>
<td>73.5 (39)</td>
<td>49.1 (26)</td>
<td>49.1 (26)</td>
</tr>
<tr>
<td>Calgary</td>
<td>69.6 (32)</td>
<td>58.7 (27)</td>
<td>54.4 (25)</td>
</tr>
<tr>
<td>North Alberta</td>
<td>50.1 (14)</td>
<td>17.9 (5)</td>
<td>60.7 (17)</td>
</tr>
<tr>
<td>South Alberta</td>
<td>67.2 (39)</td>
<td>14.0 (8)</td>
<td>58.7 (34)</td>
</tr>
<tr>
<td>Sask.</td>
<td>66.6 (14)</td>
<td>14.4 (3)</td>
<td>42.9 (9)</td>
</tr>
<tr>
<td>Other Provinces</td>
<td>44.4 (11)</td>
<td>11.1 (3)</td>
<td>59.2 (16)</td>
</tr>
</tbody>
</table>

Note. In this and following tables, multiple usage and percentages do not equal 100%. The numbers represent responses for each location and not the totals. Also, "never, seldom" responses were not included.

The next greatest use of public libraries was by students in southern Alberta and Saskatchewan while the lowest use of public libraries was in northern Alberta and by students in all other provinces. The better developed regional public library services in southern Alberta and Saskatchewan as against northern Alberta may explain the difference in the pattern of public library use. Not enough is known about library services in the other provinces to explain the lower percentage of use there.

Not unexpectedly, those with less use of public libraries used AU Library the most with northern Alberta and out-of-province students indicating the highest percentage response to use of AU Library. Nevertheless, the Edmonton and Calgary students were not much lower in percentage use of AU Library and given their higher use of both public and other university libraries, it is evident that students in Edmonton and Calgary generally use libraries more than students in any other locations.

Another interesting finding in the study was the variation in library use by gender. (See Table 3). Women students used the public library and AU Library more than men students. The use of
AU Library by women students was found to be statistically significant. One interpretation of these results would be that women students find it easier to go to the local public library than to a university library (where one exists), and that due to less mobility generally utilize the services of AU Library more.

Table 3

Use of Libraries by Gender - Percentages (n=229)

<table>
<thead>
<tr>
<th>Sex</th>
<th>Public Library</th>
<th>Other Univ. Library</th>
<th>AU Library</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>67.5 (114)</td>
<td>30.7 (52)</td>
<td>61 (103)</td>
</tr>
<tr>
<td>Male</td>
<td>58.3 (35)</td>
<td>33.3 (20)</td>
<td>40 (24)</td>
</tr>
</tbody>
</table>

Tables 4 and 5 present the use of public, other university and AU Library by programme of study and number of courses taken respectively. Students in the BA programme show a higher percentage use of both public libraries and the AU Library than students in other programmes. (Table 4). The use of AU Library by BA students was statistically significant. The other group of students with high library use in all categories were the Nursing and Social Work students. These students have the highest percentage use of university libraries, second highest percentage use of AU Library and a high use of public libraries. One last point of interest is that BAdmin students indicated the lowest percentage use of libraries in all three categories, even lower use than that of non-degree students.
Table 4

Use of Libraries by Programme of Study -

Percentages (n=229)

<table>
<thead>
<tr>
<th>Programme</th>
<th>Public Library</th>
<th>Other Univ.</th>
<th>AU Library</th>
</tr>
</thead>
<tbody>
<tr>
<td>All non-degree</td>
<td>61.4 (59)</td>
<td>32.3 (31)</td>
<td>49.0 (47)</td>
</tr>
<tr>
<td>Nurse &amp; Social Work</td>
<td>61.9 (13)</td>
<td>52.4 (11)</td>
<td>57.9 (12)</td>
</tr>
<tr>
<td>BA</td>
<td>77.3 (44)</td>
<td>24.6 (14)</td>
<td>73.7 (42)</td>
</tr>
<tr>
<td>BGS</td>
<td>65.4 (17)</td>
<td>30.7 (8)</td>
<td>50.0 (13)</td>
</tr>
<tr>
<td>BAdmin</td>
<td>55.1 (16)</td>
<td>27.6 (8)</td>
<td>44.8 (13)</td>
</tr>
</tbody>
</table>

Table 5

Use of Libraries by Number of Courses Taken -

Percentages (n=229)

<table>
<thead>
<tr>
<th>No. of Courses</th>
<th>Public Library</th>
<th>Other Univ.</th>
<th>AU Library</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>56.0 (37)</td>
<td>22.8 (15)</td>
<td>47.0 (31)</td>
</tr>
<tr>
<td>2-5</td>
<td>63.5 (66)</td>
<td>29.8 (31)</td>
<td>54.8 (57)</td>
</tr>
<tr>
<td>6-10</td>
<td>79.4 (27)</td>
<td>35.3 (12)</td>
<td>76.5 (26)</td>
</tr>
<tr>
<td>11 up</td>
<td>76.0 (19)</td>
<td>56.0 (14)</td>
<td>52.0 (13)</td>
</tr>
</tbody>
</table>

Table 5 correlates library use with the number of courses taken. At Athabasca University a large percentage of students who take one course initially either drop out or transfer to some other post-secondary institution. The university is identifying ways of encouraging students to continue their course work with AU. This being the case, the numbers in Table 5 have direct implications for AU Library and perhaps also for public and other university libraries. The use of all libraries increased as the
number of courses taken increased up to 10 courses. After 10 courses the use of AU Library and public libraries decreased while the use of other university libraries increased. The increase in use of other university facilities may be a function of cross-registration. Students at the University of Alberta or University of Calgary also register with AU to pick up a required course not available in their own institutions. Of the total respondents 43 percent were from Edmonton and Calgary while of those with 11 or more courses, 53.8 percent were from Edmonton and Calgary. Generally, Table 5 indicates that the more courses a student takes, the more the student uses all libraries. For AU Library the significance of this survey is the finding that library use increased significantly among those who took 2 to 5 courses (54.8 percent use) and when students registered in 6-10 courses, library use jumped to 76.5 percent.

The library use results are important to Athabasca University Library in view of the academic development plans of the university. The university is developing strategies to have more students register in programmes of study, to have students stay with the university for more than one or two courses and to attract more students from northern Alberta. Furthermore, while the university may not be targeting women specifically, women have represented an increasing percentage of registrations at AU.

The implication of the data in Tables 2 to 5 is, then, that the rate of success of the University Academic Development Plan will have a direct impact on the AU Library and it will have some impact on other libraries, particularly public libraries. The only mitigating factor to this prediction will be if the number of increased registrations turns out to be only in the BAdmin programmes and not in the fields where library use tends to be high.

Other Results.

In the survey students were asked for what purposes they used a library. Three choices were provided which were:

1. doing course work or assignments
2. obtaining recommended readings
3. studying for tests and exams

Over 75 percent (230) of the 300 surveyed answered this question. Of the 230, 124 (41.3 percent) use libraries for locating recommended readings, 71 (23.7 percent) use libraries in completing projects or assignments and 51 (17 percent) use libraries to study for tests or exams. The general interpretation
of these results is that distance education students use libraries more for getting information than for studying purposes.

Those students who had used AU Library (176 people) were asked three questions about the service received. Of the 176, 88.6 percent (156) indicated the Library was able to fill their requests; 94.3 percent (165) were satisfied with the time to get books (a matter of some concern when using the mail for book deliveries); and 87.6 percent (149) assessed the library service as good or very good and another 11.2 percent (19) assessed the service as adequate.

Part II User Analysis

With the assistance of the Institutional Studies Unit of the Centre for Distance Education, the library conducted an analysis of its student usage over a representative four-month period. The library receives student requests over the phone and through the mail. In dealing with a request received over the phone, library staff transcribe the request onto a "Library Information Request" form. The basis for the student user analysis consisted of transcribed and mailed-in requests received between September 1st and December 24th, 1987. Since September and December typically show lower than average usage statistics, and October and November are normally higher than average months, the four-month period represented a cross-section of activity levels in student usage. Between those dates, a total of 683 library request forms were handled; 186 of which were mailed in, and 497 of which were received by telephone and transcribed.

Each request form contained the following information:

- student identification number
- course name and number
- student address
- what was requested (specific item, general subject) and in what format (print, audio, video)
- how the request was dealt with (fulfilled, reserved, substituted, cancelled)

The information from each form was then keyed into a statistical analysis database designed for the library for Institutional Studies, and the results were analyzed.

At the outset, several assumptions were held about students' utilization of library services. It was anticipated that amongst the 683 users would be several "core users"—students who, having received satisfactory service, would contact the library for
further services and thereby form a core user group. It was expected, as well, that library usage would cluster by course—some courses would require little or no library support while others would require a high level of interaction with the library. A further assumption was that concentrations of use would appear by location, given that those concentrations exist in course registration statistics. We anticipated that most requests would be item-specific rather than subject requests, as students can refer to the "Supplementary Materials Lists" in each course package they receive. Most requests, we thought, would be for several items at a time rather than for one or two items. And lastly, we expected that a high proportion of the requests would be for audio or video materials which, although not required to complete courses, seemed to be popular formats with distance students.

The analysis of the requests provided interesting results, some of which substantiated our initial assumptions, and others which cast new light on what our students wanted from our library service.

Core Users

The 683 library information requests received between September and December of 1987 were generated by a core user group of 466 students. Each student, therefore, made an average of 1.47 requests for library material, confirming the assumption that the library's services are utilized to a certain extent by repeat users. Moreover, the total number of users, 466, represented 9% of the eligible registered students at that time (5,160), and 5.7% of the total number of course registrations (8,148). The findings in this area verified that our users represented a segment of the total student body, and that further efforts can be made to broaden the base of core users.

Course Concentrations

As was expected, concentrations of library usage appeared by specific courses and disciplines. Those discipline areas which represented the clearest concentrations in usage were French, psychology, history, humanities, anthropology, English, geology and communications. The following table outlines percentage concentrations of library usage for the sample period, along with registration percentages for the year of 1987. In each case, actual numbers of registrations or requests are provided in parentheses. Notations after the individual discipline names indicate those areas where radio or television enhancements exist, or library projects are optional parts of course packages. (See
Table 6).

It is interesting to note that the concentrations in course registrations are not necessarily translated into concentrations in library use. For example, accounting, mathematics, and biology all have relatively high registration rates, but percentages of library use for those courses are very low. Courses in these disciplines tend to be designed so that they require minimal support materials and students are less likely to contact the library for assistance with them. Low library use is expected in these areas.

As well, those disciplines which show high library use rates do not necessarily show a high registration percentage, as is the case in French, history, humanities, anthropology, and geology. The high percentage of library contact in these disciplines results from radio or television broadcasts which are used as course enhancements but are not required, or from the presence of a specific course assignment which requires the student to contact the library.

Students enrolled in French courses, for example, can enhance their learning experience by listening to radio broadcasts, viewing television programs, or using language laboratory materials. Should they miss the radio or television broadcasts, not be able to receive them in their area, or wish to review them, they can contact the library to borrow the materials.

Language laboratory tapes, equipment, and manuals are also loaned to students registered in French courses. The high concentration of library use to support the French courses confirmed the assumption that the library served a vital function for students registered in those courses. We had not expected, however, so distinct a singular concentration. It is interesting to note, as well, that the requests to support French courses would be primarily for audio or video material.
Table 6

Requests by Discipline

<table>
<thead>
<tr>
<th>Discipline</th>
<th>% Registration (# course registration)</th>
<th>% Library Use (# requests)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting (5)</td>
<td>11.9 (1787)</td>
<td>.4 (3)</td>
</tr>
<tr>
<td>Administration (5)</td>
<td>7.1 (1063)</td>
<td>.8 (5)</td>
</tr>
<tr>
<td>Anthropology (11) pt</td>
<td>1.9 (282)</td>
<td>7.9 (54)</td>
</tr>
<tr>
<td>Applied Studies (2)</td>
<td>2.5 (369)</td>
<td>1.2 (8)</td>
</tr>
<tr>
<td>Biology (8)</td>
<td>4.3 (649)</td>
<td>.9 (6)</td>
</tr>
<tr>
<td>Chemistry (3)</td>
<td>.8 (113)</td>
<td>.1 (1)</td>
</tr>
<tr>
<td>Communications (4) p</td>
<td>4.6 (687)</td>
<td>5.3 (36)</td>
</tr>
<tr>
<td>Computer Science (7)</td>
<td>3.7 (556)</td>
<td>0.0 (0)</td>
</tr>
<tr>
<td>Economics (3)</td>
<td>3.2 (480)</td>
<td>.1 (1)</td>
</tr>
<tr>
<td>English (18) r</td>
<td>10.3 (1546)</td>
<td>7.5 (51)</td>
</tr>
<tr>
<td>Environmental Studies (1)</td>
<td>.1 (13)</td>
<td>.1 (1)</td>
</tr>
<tr>
<td>Finance (2)</td>
<td>.9 (131)</td>
<td>0.0 (0)</td>
</tr>
<tr>
<td>French (9) rt</td>
<td>3.8 (572)</td>
<td>21.4 (146)</td>
</tr>
<tr>
<td>Geography (4)</td>
<td>.4 (65)</td>
<td>.3 (2)</td>
</tr>
<tr>
<td>Geology (2) t</td>
<td>.8 (119)</td>
<td>5.5 (37)</td>
</tr>
<tr>
<td>History (9) pt</td>
<td>4.1 (622)</td>
<td>13.0 (88)</td>
</tr>
<tr>
<td>Humanities (6) rt</td>
<td>2.0 (294)</td>
<td>11.8 (80)</td>
</tr>
<tr>
<td>Industrial Relations (3)</td>
<td>.2 (31)</td>
<td>.1 (1)</td>
</tr>
<tr>
<td>Legal Relations (2)</td>
<td>1.9 (290)</td>
<td>0.0 (0)</td>
</tr>
<tr>
<td>Marketing (2)</td>
<td>1.3 (191)</td>
<td>0.0 (0)</td>
</tr>
<tr>
<td>Mathematics (8)</td>
<td>9.3 (1404)</td>
<td>.4 (3)</td>
</tr>
<tr>
<td>Nutrition (1)</td>
<td>.2 (32)</td>
<td>.3 (2)</td>
</tr>
<tr>
<td>Organizational Behaviour (3)</td>
<td>2.2 (327)</td>
<td>.3 (2)</td>
</tr>
<tr>
<td>Philosophy (2)</td>
<td>2.6 (386)</td>
<td>1.5 (10)</td>
</tr>
<tr>
<td>Political Science (3) pt</td>
<td>1.5 (230)</td>
<td>3.7 (25)</td>
</tr>
<tr>
<td>Psychology (18) t</td>
<td>13.9 (2089)</td>
<td>14.4 (98)</td>
</tr>
<tr>
<td>Public Administration (3)</td>
<td>.2 (32)</td>
<td>.1 (1)</td>
</tr>
<tr>
<td>Science (1)</td>
<td>0.0 (5)</td>
<td>0.0 (0)</td>
</tr>
<tr>
<td>Social Science (1)</td>
<td>.1 (22)</td>
<td>.1 (1)</td>
</tr>
<tr>
<td>Sociology (7)</td>
<td>3.2 (495)</td>
<td>1.4 (9)</td>
</tr>
<tr>
<td>Sociology/Anthropology (2)</td>
<td>.4 (63)</td>
<td>.4 (3)</td>
</tr>
<tr>
<td>Women's Studies (1) t</td>
<td>.6 (86)</td>
<td>1.0 (7)</td>
</tr>
<tr>
<td>missing</td>
<td>0.0 (2)</td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>100.0 (15031)</td>
<td>100.0 (683)</td>
</tr>
</tbody>
</table>

p= library project option
r= radio broadcast enhancement
t= television broadcast
History and anthropology students can borrow videotapes of televised broadcasts, and can also do a "library project" in which the library sends them a package of materials required to complete a research assignment. Both audiotapes and videotapes are available to students registered in humanities courses. The geology courses, as well, have a television broadcast component, and videotapes are available from the library. It seems likely in those courses where high rates of library contact are not supported by high percentages of registration that the presence of enhancements or library projects encourages the higher rate of use. This tendency is discussed later in the section entitled "Format Requested."

In the case of psychology, English, and communications, library use more clearly reflects percentages of registrations. In psychology (in which television broadcasts are also present in four of the eighteen courses offered) library usage is likely a reflection of the numbers of students registered in those courses, the enhancements available, the requirement to complete research assignments, and the provision of "Supplementary Materials Lists" to guide students' research efforts. High library usage related to English courses reflects the requirement to submit research papers and, once again, the presence of "Supplementary Materials Lists" in course packages. Radio broadcast enhancement is present for one English course. It is interesting to note here that the English discipline is the only area which reflects high library usage without the presence of radio or television broadcasts or specific "library project" assignments. The high percentage of library use in communications is likely linked to the presence of an assignment in which students receive a videotape, along with an assignment booklet which they complete as part of their course.

Low library use clusters appear in some expected areas: computing science, chemistry, environmental studies, finance, industrial relations, public administration, and social science. In these cases, either registrations are low, or courses are designed so that students are self-sufficient, as is the case in chemistry and computing science. Of interest to the library are those disciplines where the potential for library use exists by virtue of registrations and the nature of the discipline, but actual library use is low. Examples are administration, economics, and organizational behaviour. It is possible that courses have been designed with the intention that students require little or no additional materials, but it is more likely that the library information within the course packages does not adequately inform students of the library's holdings to support these courses.
In summary, then, a number of factors seem to have been active in establishing patterns of library use by course concentrations over the four-month period:
- the presence of radio or television enhancements
- high general percentages of registration
- research requirement of the course or discipline
- presence of a required or optional "library project"
- course design and content

Location

As was expected, the greatest concentration of library users was from the Alberta region (77.2%), with an additional concentration of users from the Saskatchewan area (11.7%). Each of the other provinces and territories, with the exception of Prince Edward Island, was represented over the four month library use period for a combined total of 11.1%.

Table 7

Requests by Location

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>% Library Requests (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia</td>
<td>2.5 (17)</td>
</tr>
<tr>
<td>Alberta</td>
<td>77.2 (527)</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>11.7 (80)</td>
</tr>
<tr>
<td>Manitoba</td>
<td>3.4 (23)</td>
</tr>
<tr>
<td>Ontario</td>
<td>1.0 (7)</td>
</tr>
<tr>
<td>Quebec</td>
<td>.7 (5)</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>.3 (2)</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>.1 (1)</td>
</tr>
<tr>
<td>Newfoundland</td>
<td>.3 (2)</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>2.2 (15)</td>
</tr>
<tr>
<td>Yukon Territory</td>
<td>.6 (4)</td>
</tr>
<tr>
<td>Total</td>
<td>100.0 (683)</td>
</tr>
</tbody>
</table>

The highest concentration of users from the Alberta region is a reflection of high registrations in that area:
Table 8
Registrations and Requests by Location

<table>
<thead>
<tr>
<th>Location</th>
<th>% Registrations (# in 1987)</th>
<th>% Library Request Sample (#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta - Edmonton</td>
<td>25.9 (3886)</td>
<td>17.6 (120)</td>
</tr>
<tr>
<td>Alberta - Calgary</td>
<td>21.2 (3190)</td>
<td>15.4 (105)</td>
</tr>
<tr>
<td>Alberta - South</td>
<td>13.7 (2065)</td>
<td>25.9 (177)</td>
</tr>
<tr>
<td>Alberta - North</td>
<td>14.2 (2132)</td>
<td>18.3 (125)</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>7.5 (1131)</td>
<td>11.7 (80)</td>
</tr>
<tr>
<td>Other Provinces &amp; Territories</td>
<td>17.5 (2627)</td>
<td>11.1 (76)</td>
</tr>
<tr>
<td>Total</td>
<td>100.0 (15031)</td>
<td>100.0 (683)</td>
</tr>
</tbody>
</table>

Proportionately higher use of library services was made by students from northern and southern Alberta exclusive of Edmonton and Calgary than was made by students from those urban areas. Edmonton and Calgary have well-developed municipal, college, and university libraries which can serve as possible alternate sources of material, while it is expected that students outside those areas have fewer alternate library resources available and are more dependent on the Athabasca University Library for their library materials. Library use by Saskatchewan users is proportionately higher than expected, and while it is possible that this percentage reflects high use of the Athabasca University Library by rural registrants, there is insufficient breakdown of data to verify this supposition. Proportionately lower library usage amongst students from areas other than Alberta and Saskatchewan may result from more reluctance to use library service at a distance because of mailing times to those areas, particularly if alternate library resources are available.

In summary, then, a high percentage (77.2%) of library requests in the sample period were from Alberta students, as had been expected. However, a higher than anticipated rate of requests (44.2%) was generated by students in areas outside the main urban centres in the province. This tendency reaffirms the library’s belief that it provides a valuable service to those students who live in areas that might not otherwise have library services which are adequate for academic needs.
Item - Specific/Subject Request

While it was anticipated that there would be a greater tendency for students to request specific items by author or title than materials in general on a subject, the user analysis revealed a higher than expected tendency toward the former. Ninety-four percent (641) of requests received were "item-specific", compared with 6% (42) of requests which called for general materials on a subject. Findings in this area were looked at in the context of whether students were from "urban" or "rural" environments to determine if preferences for either type of request might result from the type of library service that exists in their immediate locales. Very little variance appeared, although a slightly higher request rate for materials on a general subject appeared for the "rural" user.

Table 9

<table>
<thead>
<tr>
<th>% Item Request (#)</th>
<th>% Subject request (#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>94 (333)</td>
</tr>
<tr>
<td>Rural</td>
<td>93 (308)</td>
</tr>
</tbody>
</table>

It seems, therefore, that the tendency to request specific items rather than general subject material is a function of the course material rather than the urban or rural environment within which students live.

It is assumed that specific references were derived from "Supplementary Materials Lists" which appear in course manuals, from tutor references, or from textbook bibliographies and that the high percentage of item-specific requests reflects a preference on the part of the student to request known or cited materials. The findings here reinforced the validity of the library's sense of obligation and commitment to purchase and make available all items referred to on course "Supplementary Materials Lists," and to invite tutors to suggest purchases for student use. The preference to request specific cited items reinforced, as well, the value of including reading lists or Supplementary Materials Lists in the course packages, to which students can easily refer when additional materials are required.
Format Requested

As was suggested in the section entitled "Course Concentrations," a substantial proportion of student requests was for audiotape or videotape material:

Table 10

Requests by Format

<table>
<thead>
<tr>
<th>Format Requested</th>
<th>% Requests (#items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print Material</td>
<td>39 (1010)</td>
</tr>
<tr>
<td>Audiotapes</td>
<td>23 (590)</td>
</tr>
<tr>
<td>Videotapes</td>
<td>37 (973)</td>
</tr>
<tr>
<td>Language Labs</td>
<td>1 (20)</td>
</tr>
<tr>
<td>Total</td>
<td>100 (2593)</td>
</tr>
</tbody>
</table>

A combined total of 60% of library items requested were for audio-video materials, and therefore related to the radio or television enhancements, to videotape based library projects, or to audio language laboratory enhancements. As mentioned earlier, students are able to request tapes of broadcasts should they not have them available in their areas, or should they have missed the broadcasts or wish to review them. The following table is a breakdown of the format requests received within the four-month sample period according to the discipline areas to which the requests were related.
Table 11

Requests by Discipline and Format

<table>
<thead>
<tr>
<th>Discipline</th>
<th>% Print Items Requested (#)</th>
<th>% A-V Items Requested (#)</th>
<th>% Both Requested(#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>67 (2)</td>
<td>33 (1)</td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>100 (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthropology*</td>
<td>13 (7)</td>
<td>83 (45)</td>
<td>4 (2)</td>
</tr>
<tr>
<td>Applied Studies</td>
<td>100 (8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>50 (3)</td>
<td>50 (3)</td>
<td></td>
</tr>
<tr>
<td>Chemistry</td>
<td>100 (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communications*</td>
<td>11 (4)</td>
<td>89 (32)</td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>100 (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English*</td>
<td>70 (36)</td>
<td>24 (12)</td>
<td>6 (3)</td>
</tr>
<tr>
<td>Environmental Studies</td>
<td>100 (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>French*</td>
<td>22 (30)</td>
<td>76 (102)</td>
<td>2 (3)</td>
</tr>
<tr>
<td>Geography</td>
<td>100 (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geology*</td>
<td>3 (1)</td>
<td>97 (36)</td>
<td></td>
</tr>
<tr>
<td>History*</td>
<td>66 (58)</td>
<td>31 (28)</td>
<td>3 (2)</td>
</tr>
<tr>
<td>Humanities*</td>
<td>24 (19)</td>
<td>66 (53)</td>
<td>10 (8)</td>
</tr>
<tr>
<td>Industrial Relations</td>
<td>100 (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>7 (2)</td>
<td>33 (1)</td>
<td></td>
</tr>
<tr>
<td>Nutrition</td>
<td>100 (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Behaviour</td>
<td>100 (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philosophy</td>
<td>100 (10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Science*</td>
<td>92 (23)</td>
<td>8 (2)</td>
<td></td>
</tr>
<tr>
<td>Psychology*</td>
<td>49 (48)</td>
<td>47 (46)</td>
<td>4 (4)</td>
</tr>
<tr>
<td>Public</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>100 (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Sciences</td>
<td>100 (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociology</td>
<td>100 (9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociology/ Anthropology</td>
<td>100 (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women's Studies</td>
<td>86 (6)</td>
<td></td>
<td>14 (1)</td>
</tr>
</tbody>
</table>

Note. 13 requests missing format designation, therefore n = 670

* disciplines with courses that have radio or television broadcasts enhancements, or videotape based projects

Audio-visual requests in those areas where no enhancements exist (i.e., accounting, biology, mathematics) are likely for
materials unrelated to the course, but in which the student may have a personal interest (i.e., "World at War" broadcast series). English, history, humanities, and psychology reflect students' interest both in print-based research materials and audio or video enhancements. High audio or video requests originate in areas where radio or television broadcasts occur as enhancements to the courses, or a video-based project is part of the course: anthropology, communications, French, geology, humanities, and psychology. As can be expected, little or no audio or video requests result with courses in which neither broadcast enhancements nor projects appear.

The percentages of library activity in total dealing with audio or video requests reveals both the popularity of the formats with our distance students, and the popularity of the radio and television enhancements when they are available options with courses.

**Number of Items Requested**

It was anticipated that, once students prepared to contact the library by telephone or mail, they would be likely to request blocks of material at one time, rather than single items. The analysis revealed that a total of 2593 items were requested through the 683 requests made, an average of 3.8 items per request. While a high incidence occurred where four, five, or six items were requested at one time (107, 59, 44 respectively), requests for one, two, or three items did occur with surprising frequency (237, 85, 73 respectively).
Table 12

Requests by Number of Items Requested

<table>
<thead>
<tr>
<th>Number of Items Requested</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>237</td>
</tr>
<tr>
<td>2</td>
<td>85</td>
</tr>
<tr>
<td>3</td>
<td>73</td>
</tr>
<tr>
<td>4</td>
<td>107</td>
</tr>
<tr>
<td>5</td>
<td>59</td>
</tr>
<tr>
<td>6</td>
<td>44</td>
</tr>
<tr>
<td>7</td>
<td>22</td>
</tr>
<tr>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>11-17</td>
<td>20</td>
</tr>
<tr>
<td>18-36</td>
<td>6</td>
</tr>
</tbody>
</table>

Results in this area indicate that the library may be able to realize some efficiencies if it encourages students to reduce the number of single-item requests by consolidating their requests or planning their library research needs more carefully. Once again, while the overall average of 3.8 items per request is acceptable, the incidence of single item requests is higher than would be desired in terms of telephone and mailing costs incurred in delivering services.

Fulfillment Rates

Rates of fulfillment, as produced in the user analysis over the four-month period, indicated a higher than expected ability to meet student demands. Of the 2593 items requested, 1909 were supplied at the time of request (73.6%), 67 were owned but out on loan (21.9%), 117 were not (4.5%). In the event that materials were out on loan or not owned, library staff either placed reserves on items, provided substituted material, or responded to a cancellation request, as is depicted in the chart which follows (numbers refer to items):
Table 13
Rate of Fulfillment

<table>
<thead>
<tr>
<th>Items Requested (2593)</th>
<th>Items Lent Out (1909)</th>
<th>Items Reserved (485)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Items Out on Loan (567)</td>
<td>Items Substituted (44)</td>
</tr>
<tr>
<td></td>
<td>Items Not Owned (117)</td>
<td>Item Request Cancelled (155)</td>
</tr>
</tbody>
</table>

Overall, the Library collection was able to meet student demands to a satisfactory level. However, the number of times that owned materials were out on loan indicates that more multiple copy purchasing may be necessary in some areas. As well, the low incidence of substitution suggests that more efforts can be made by Library staff to provide alternate materials when requested items are out or not owned.

Conclusion

Part I. Telephone Survey

This study provides some interesting data about the information and library use patterns of distance education students. The important role of the tutor as the front-line contact for the student is reaffirmed. From the Library's perspective this means that efforts to increase awareness about AU Library services must be directed to both students and tutors to maximize results. Secondly, the lower response to the use of study guides and course texts by all except BA and BGS students should be analyzed in relation to the purpose these guides and texts serve in distance education. The Library may have to highlight more prominently for students the availability of materials referred to in the study guide and texts.

In terms of the use of libraries the study confirmed that students with less access to other libraries used AU Library more
and especially students from northern Alberta. The study also showed that students in Edmonton and Calgary had a higher propensity to use libraries of all kinds. This would indicate that better awareness of libraries generally leads to proportionately higher library use.

The study further confirmed that there was a link between programme of study and library use. Students in the BA, BGS programmes (registering predominantly in humanities and social sciences courses) and students in the applied studies transfer programmes of nursing and social work indicated a higher use of AU Library. BAdmin students indicated the least use of any libraries. There was also significantly higher use of AU Library by women students.

The increase in use of AU Library in relation to the number of courses taken was confirmed in the study. This increase in use would be the result of both the higher level of courses taken (and the requirement for more extensive research essays) and by the increasing familiarity with the Library service available.

All of these findings are important to AU Library in an environment where the University is attempting to increase retention rates, to increase students registered in "programme" as against "non-programme" categories, and to increase the number of students from northern Alberta.

Part II. User Analysis

In conclusion, the Library user analysis confirmed several assumptions about students' use of Athabasca University Library and provided valuable information for further development of services.

The percentage of eligible students who actually used the Library between September and December, 1987, was 9%, indicating that we have succeeded to an extent in ensuring that students are aware of our Library service. Further efforts can be made to expand the user base such as more distinct promotion of services in course materials, more attention to library projects within course packages, more required interaction with the Library for research projects. Each of these factors has revealed higher Library awareness and use to date.

The highest percentage of service is requested and provided to students from the Alberta and Saskatchewan areas. Proportionately higher usage of service is requested by students living outside the major urban areas of Alberta, indicating that
the library serves a vital role for its non-urban students.

The tendency on the part of students to request specific items rather than general subjects reinforces the value of having "Supplementary Materials Lists" included with packages, and of having contact with tutors who can suggest useful titles to them. Both the lists and tutor-Library interaction are seen as beneficial and to be encouraged by the Library to further assist students in selecting specific citations.

As was expected, audio and video materials are popular formats with distance students, and the analysis confirms the validity of growth in this area of our collection. Although the average items per request of 3.8 is acceptable, the Library can make further efforts to encourage students to, and assist them with, planning their library requests so that the number of single-item requests is reduced.

The overall rate of fulfillment of 73.6% reinforces that the Library's collection development policy for student materials is effective. The growth of the collection based on recommended reading lists, and tutor or coordinator suggestions has provided a useful collection upon which students can draw. Further attention can be paid, however, to multiple copy purchasing and to the provision of alternate materials.

The telephone survey and the user analysis confirmed that the Library serves a vital role in supporting students to succeed in education at a distance. The study provides an indication of how institutional plans will affect the use of Library services and areas of service that need further development. It is expected that the next few years will be spent in further developing existing services, promoting those services, and ensuring that course materials make appropriate references to Library activities.
Library Questionnaire

Hello, may I please speak to ___? Hello, ___, my name is ___ and I'm calling from Athabasca University. The library at AU is currently conducting a survey of our students to gather information that will help us to improve library services. Your name has been randomly selected from the student records system. I'd like to ask you to assist in our research by answering a few questions about your library usage and about the ways you have chosen to collect information for your course projects and assignments. The survey will take only 2 or 3 minutes, and naturally, your responses would be held in the strictest confidence. Would it be all right if I went ahead with the survey?

Thank you.

Question #1

I'd like to ask you first about how you gather information when you work on your AU course projects and readings. I'm going to list several possible information sources, and for each, I'd like you to say whether you NEVER, SELDOM, SOMETIMES, OFTEN or ALWAYS rely on these sources of information.

<table>
<thead>
<tr>
<th>Source</th>
<th>NEVER</th>
<th>SELD</th>
<th>SOM</th>
<th>OFTEN</th>
<th>ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Discussions with people you know other than your tutor.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>b) Discussions with or advice from your tutor.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>c) References or books available where you work.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>d) References or books borrowed from another person.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>e) References that are referred to in the AU study guide.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
f) References that are mentioned in the course texts. [ ] [ ] [ ] [ ] [ ]

g) Your personal library or references. [ ] [ ] [ ] [ ] [ ]

h) Reference material or books from a library. [ ] [ ] [ ] [ ] [ ]

i) Are there any information sources, other than those I have already mentioned, that you rely on when you work on course projects and assignments?

[ ] yes 
(specify): ____________________________

[ ] no

If answer to (h) is "never", proceed to Question #5. Otherwise, continue to Question #2.

Question #2

I'd like to ask what purpose you use libraries for. I'd like you to say whether you generally use libraries for each of the following purposes.

Y       N

a) doing course projects or assignments. [ ] [ ]

b) obtaining recommended course readings. [ ] [ ]

c) studying for tests and exams [ ] [ ]
Question #3

I'd like to find out more about your use of libraries. I'm going to list several types of libraries, and for each, I'd like you to say whether you NEVER, SELDOM, SOMETIMES, OFTEN or ALWAYS use this library to help you with your AU course or courses.

<table>
<thead>
<tr>
<th></th>
<th>NEV SEL SOM OPT ALW</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Your local public library.</td>
<td>[ ] [ ] [ ] [ ] [ ] [ ]</td>
</tr>
<tr>
<td>b) A community college library.</td>
<td>[ ] [ ] [ ] [ ] [ ]</td>
</tr>
<tr>
<td>c) A local public or secondary school library.</td>
<td>[ ] [ ] [ ] [ ] [ ]</td>
</tr>
<tr>
<td>d) A library where you work.</td>
<td>[ ] [ ] [ ] [ ] [ ]</td>
</tr>
<tr>
<td>e) A university library other than Athabasca University.</td>
<td>[ ] [ ] [ ] [ ]</td>
</tr>
<tr>
<td>f) Athabasca University library.</td>
<td>[ ] [ ] [ ] [ ]</td>
</tr>
</tbody>
</table>

If answer to (f) is "never", proceed to Question #5. Otherwise, proceed to Question #4.

Question #4

In your experience, is the AU library generally able to fill your requests for books and other library materials?

[ ] yes
[ ] no
[ ] don't know/no response/no opinion/na

When requesting books or materials by mail or phone, were you generally satisfied with the time it took to receive those books or materials?

[ ] yes
[ ] no
[ ] don't know/no response/no opinion/na
Overall, how would you rate the quality of the service you received from AU's library: VERY GOOD, GOOD, ADEQUATE, POOR or VERY POOR?

[ ] very good
[ ] good
[ ] adequate
[ ] poor
[ ] very poor
[ ] don't know/no response/no opinion/na

Proceed now to Wrap-Up.

Question #5

You indicated that you do not use libraries to obtain information for your course projects and assignments. Were you aware that Athabasca University has a library from which students can request materials by mail or phone?

[ ] yes
[ ] no

If yes, continue to Question #6.
If no, proceed to Question #7.

Question #6

Are there any reasons why you have not used the AU Library yet?

[ ] have no need - materials available elsewhere
[ ] not convenient to request materials by phone or mail
[ ] not satisfied with stocks
[ ] other (specify):

Proceed now to Wrap-Up.
Question #7

Would you like us to send you any information on the AU library, and on how you can request books or materials by mail or phone?

[ ] yes
[ ] no

Wrap-Up

That ends my questions. I'd like to thank you very much for taking the time to help us with our research, and we wish you all the best in your studies with AU. Good-bye.
The Development of Off-Campus Library Services

At Western Kentucky University

Michael Binder
Harley Brooks
Sally Ann Strickler

Western Kentucky University

Historical Background

Western Kentucky University has had a long history of providing off-campus courses throughout the 27 counties within its primary service region which ranges from Owensboro to Louisville, Kentucky. A variety of courses has been offered in numerous locations. Facilities utilized have included area colleges, public and vocational schools, public libraries, businesses, and hospitals. Both undergraduate and graduate courses have been offered through the extended campus program. The rationale for the program has been to assist those students who are unable to come to campus because of employment, excessive distance, or other reasons and could attend classes either in or near their own locale.

Recently, Western Kentucky University along with many other colleges and universities has seen dramatic declines in on-campus enrollment with marked increases in off-campus courses, particularly in coursework leading to baccalaureate and graduate degrees. WKU has experienced a doubling of the number of its off-campus students since 1984.

By spring of 1988 the WKU extended campus schedule offered 248 classes in 32 locations, with classes ranging from English 100 to School Law, Social Psychology of Organizations, and Concepts in Pharmacy. The extended campus program is organized around four centers which serve five to eight counties each. Three of these centers have center directors, offices and all four have active telephone registrations. Extended campus enrollment for spring 1988 was 105 (head count).

Western Kentucky University has had an uneven history of library services to students enrolled in earlier extended campus classes ranging from intermittent to non-existent with service varying from transporting numerous duplicate copies to classes in large specially built wooden boxes to checking out specific titles to the travelling professor who was responsible for the books
being circulated to students. Most extended campus students were left with little or no library service, and options of traveling miles to use the main WKU campus libraries or using often meager resources found in local colleges, public and vocational schools, and public libraries. In no way was WKU offering library services to our extended campus students equal in quality to service on the home campus or providing adequate access to library resources and equipment.

As we began to review the situation in 1987 we found that statements from the regional accrediting associations throughout the United States are uniform in their insistence on adequate library support for off-campus institutions and that guidelines for extended campus library services are provided by the Association of College and Research Libraries. A review of the literature revealed a collective professional sentiment that the parent institution must be responsible for the provision of adequate access to library resources and equipment for students and faculty in off-campus locations. Library services for extension or continuing education should be equal in quality to service on the home campus.

With this knowledge in mind, the concern of the WKU Vice President of Academic Affairs for a plan for off-campus library services, and the approaching visit of two accreditation teams whose reviews included business and nursing courses taught off-campus, the Director of Libraries at Western Kentucky University appointed a Task Force on Providing Library Services to Extended Campus Students which included the Circulation Services Supervisor, the Coordinator of Collection Development, and the Department Head of Library Public Services.

Task Force Plan

In order to develop a proposal for providing campus-quality library services to the students of Western Kentucky University extended campus programs at three centers, Ft. Knox, Glasgow, and Owensboro, Kentucky, the Task Force met with those persons on Western's campus who plan and administer extended campus services. A review was made of classes taught, subject, graduate/undergraduate, number of students in these classes, and the location of the classes. In addition, the Task Force visited extended campus centers in Ft. Knox, Glasgow, and Owensboro as well as the libraries used by students attending Western Kentucky University classes in those areas, including public libraries, hospital libraries, an army base library, and a special U. S. Army Armor School Library. A visit was made to the University of
Kentucky Library to interview their Extension Librarian and to learn more about U. K.'s seasoned and extensive program for planning and delivering library services to instructional sites state-wide. A review of current library technology, was made including CD ROM, WILSONDISC, telefacsimile transmission, etc.

As a result of their study, interviews, and visits, the Task Force became convinced of the need to provide library services to off-campus sites. Already committed to the premise that library services are essential to the mission of the University, the members of the Task Force looked for a new approach to library services for extended campus students and faculty which would be innovative and yet would preserve the quality service which WKU's libraries have provided over the years. The Task Force proposed innovative access to main library services and collections as a key feature rather than the traditional assembling of additional library collections in off-site locations.

The Task Force proposal presented a plan for providing library services at each of the WKU Centers for Extended Campus Programs at Owensboro, Fort Knox, and Glasgow which included the following elements:

1. Library staff and student assistants at off-campus sites as well as the main library.

2. Free on-line bibliographical searching for patrons;

3. Free copy service for patrons;

4. Free delivery of requested periodical articles and books to patrons;

5. Reserve materials at off-campus sites;

6. Reference assistance at off-campus sites;

7. Library instruction, workshops and library tours available at off-campus sites;

8. Toll free (800) number for patrons to call the main library to make resource and reference requests, request on-line searches, and ask circulation questions;
9. Twenty-four hour telephone recording device to record requests from patrons;

10. A cooperative relationship with off-campus teaching faculty to provide needed reserve materials as well as current and future curriculum needs;

11. COM catalog of WKU libraries' holdings and selected periodical indexes at off-campus sites; and

12. Promotion of library services by brochures, information in extended campus pamphlets, class presentations by librarians.

Future planning for off-campus library services would include the following components:

1. Appoint a full-time official extension librarian to plan, design, develop, and administer programs and services applying the library resources of the extension community.

2. Make available the on-line catalog (TOPCAT) of the WKU Libraries at off-campus sites as soon as the on-line system is completed; and

3. Continue to expand campus library services as WKU's programs expand; for example, the developing program at Russellville would receive the same services as the other three centers.

Central to the Task Force proposal was cooperation with existing libraries at the off-campus sites: the Barr Library (base library) and the Armor School Library at Fort Knox, the Owensboro Senior High School Library at Owensboro, and the Mary Wood Weldon Memorial Public Library at Glasgow. As a part of this cooperation the WKU libraries would provide either clerical or student assistance to the library involved.

Several delivery systems were proposed for consideration including:

1. Courier service to each of the extended campus centers;

2. U. S. Mail service directly to students; and

3. Telefacsimile transmission of journal articles to extended campus centers.

In all cases students were to be given the choice of delivery
service to be used.

Library materials, predominantly indexes, were to be chosen for each center, specifically targeted to meet the needs of that center. A WILSONDISC CD-ROM workstation with five WILSONDISC databases was proposed for Owensboro, because of the Task Force belief that Owensboro would be the fastest growing center. Fort Knox, since its libraries owned a substantial portion of the indexes needed, was to receive only a minimum amount of material. The center at Glasgow was scheduled for basic indexes plus two nursing indexes for programs taught at the local hospital.

The Actual Program Implemented

Administrative response to the program was overwhelmingly favorable. Unfortunately, the funding needed to implement the program was not available due to budgetary restraints. Committed to beginning a program the Director of Libraries reallocated funds from other sources to fund a pilot program in Glasgow. The Glasgow Public Library (Mary Wood Weldon Memorial Public Library) was chosen because of the great interest and cooperative attitude displayed by its librarian and board of trustees.

This program involved the cooperation of the Glasgow Library and included the following aspects:

1. Toll free (800) number for access (from Kentucky only) to the WKU Helm-Cravens Library Circulation Unit for students to request free copies of journal articles, books to be charged out and mailed to their homes, and/or reference assistance;

2. COM catalog of WKU libraries' holdings and selected periodical indexes (current and two-year backfile) purchased and placed in the Glasgow Library;

3. Twice weekly courier service from the WKU main campus to the Glasgow Library;

4. Telefacsimile equipment placed in the Glasgow Library to receive copies of articles sent by another telecopier located in the WKU Helm-Cravens Library Circulation Unit; and
5. Student assistants paid by the WKU libraries placed in the Glasgow Library to assist WKU extended campus students and faculty.

Upon being informed of this development, the director of the Owensboro Extended Campus Center made funds available for a similar program for Owensboro with these features:

1. The Owensboro Senior High School Library to be available for use by WKU extended campus students and faculty from 4 p.m. to 9 p.m., after the senior high school closed;

2. COM catalog of WKU libraries' holdings and selected periodical indexes purchased and placed in the Owensboro Senior High School Library;

3. A telefacsimile machine placed in the Owensboro Senior High School Library to receive copies of requested journal articles;

4. A part-time clerical assistant placed there to aid extended campus students and faculty; and

5. Twice weekly courier service from the WKU main campus to the Owensboro Senior High School Library.

This reduced version of the Task Force Report began operations at Glasgow and Owensboro in August, 1987. Students enrolled at the Fort Knox Center and the newly established Russellville Center were provided access to WKU libraries' holdings with reference assistance using the 800 number. Free copies of journal articles as well as books were available by direct mail to their homes.

Promotional activities for the expanded extended campus library services were many and varied. In addition to newspaper publicity releases sent to all area newspapers, brochures were prepared for each extended campus center specifically listing the services available at that center, including hours of service. Bookmarks were also prepared to promote the service and the 800 number. These bookmarks and brochures were distributed at extended campus registration. Letters were sent to extended campus students and faculty while general information on extended campus services was distributed on WKU's main campus.
Rousing Success

All of the planning, preparation, and publicity resulted in an extremely positive and successful reaction from our extended campus students. During the fall semester, the first semester the service was offered, 455 requests were received on the toll-free number and 2900 documents (monographs and articles) were delivered to extended campus students. Ninety-three reference assists were recorded.

During the 1988 spring semester, word of the service had spread: by the end of February, 724 requests had been received on the toll-free number, 3732 documents had been delivered, and 180 reference assists had been completed. Telefax was used for about 100 materials transmissions per month.

The unexpected high volume of requests lent credibility to the program and led to the decision to hire a full-time extended campus librarian in January 1988. The librarian has been accepted as an equal by the extended campus administration and participates in weekly meetings with the Dean of Extended Campus and the three Extended Campus Center Directors. During January, February, and March of 1988, the Extended Campus Librarian visited 20 classes and 9 local libraries, and contacted WKU Extended Campus faculty to encourage them to assign library research to their students, place material on reserve at the centers, and make use themselves of the toll-free number and facsimile transmission service. Statistics indicated that 64 graduate classes and 33 undergraduate classes used the service during this time with the greatest use in School Administration, Counselor Education, and Elementary Education classes.

A listing of hometowns of extended campus students served by the extended campus service indicated the widespread response to the service. Students in numerous small towns across the region are being assisted in their research and study activities as was never before possible. It is very doubtful that appropriate service has been available to students in the western Kentucky towns of Eighty-eight, Kettle, Knoblick, or Summer Shade.

As the service developed during the school year 1987-88 the need for an advisory committee composed of those librarians most active in the service became more evident. This advisory committee was formed to educate our own library faculty to extended campus service, to develop more active participation by all involved, and to use these participants to develop guidelines for the service.
Lessons Learned

Several vital lessons have been learned during the first year of our successful Extended Campus Library Service. Most importantly, extended campus service is a dynamic situation, not a static environment. Academic circumstances have changed. Non-traditional kinds of students require non-traditional kinds of service. When offering and promoting a different kind of library service, librarians must expect reaction and possible criticism from main campus students, university faculty and administrators, as well as the faculty senate or like organizations.

However, libraries must pay keen attention to statements of accreditation and library association guidelines for acceptable service for extended campus students. Although it is now a "given" that this service must be provided, the philosophical underpinnings of off-campus library service challenge precious assumptions of librarianship and other educational tenets. Distance education by necessity often precludes "hands-on" library research.

Librarians whose extended campus programs focus on providing access to materials as they are needed by all students and faculty must work toward cooperation both within their library organization and with other university organizations.

Conclusion

The academic library is, now more than ever, less a place than an array of functions and services to be found in many locations. The library is wherever courses are. Librarians must accept the professional challenge of library outreach and be willing to get involved in the process for extended campus instruction. As universities expand and emphasize their off-campus educational programs, libraries must have the ability to satisfy the informational needs of the students and faculty involved in extended campus education.
Library Services for a Remote Campus

Geneva L. Bush

James A. Damico

University of South Alabama

Introduction

The University of South Alabama (USA) is located in the city of Mobile on the Gulf Coast. It is the only major public institution of higher learning within a fifty mile radius of the city, serving not only Mobile, Alabama, but the Mississippi and Florida coast areas. With an enrollment of over ten thousand students the University offers 57 Bachelors, 23 Masters, and 7 Doctoral programs. The University of South Alabama-Baldwin County (USABC) was established in 1984 to meet the upper-division, higher education needs in one of the fastest growing counties in Alabama. Classes are held in Fairhope with library services offered at the Fairhope Public Library, and in Bay Minette at Faulkner State Junior College Library providing services to USABC students. The map in Appendix A shows the location of each campus/center as well as the main campus of the University of South Alabama in Mobile. The distance from Mobile to Fairhope is 34 miles, from Fairhope to Bay Minette is 29 miles and from Bay Minette to Mobile is 31 miles.

Administration

The University Branch is under Academic Affairs. The Dean of Continuing Education, who reports to the Vice President for Academic Affairs, has overall responsibility for the University Branch. The Director of the branch reports directly to the Dean. The Head of Library Branch Operations reports to both the Director of University Libraries and the Director of the University Branch. The Librarian, in reporting to the University Librarian, is a member of the Libraries Administrative Council, and coordinates library support for course planning, notifies faculty teaching at the branch to determine information needs of students, and coordinates services at the branch libraries.

The specific duties of the Head of Library Branch Operations include maintenance of library services for faculty and students, providing public services to students at remote sites, and providing use of electronic technology for access to reference services and library collections at the main campus. This
position requires extensive travel between the three libraries to provide the materials needed by faculty and students.

Programs

Upper level undergraduate and graduate courses at the Baldwin County campus are concentrated in the disciplines of Arts and Sciences, Business and Management Studies, Education, and Nursing. More specifically, the courses offered by Arts and Sciences include biology, communications, English literature, geology, political science, psychology and sociology. The Business program includes courses in money and banking, and marketing. In Education, courses include Growth and Development, the Young Child, Exceptional Children and Youth, Teaching and Learning Evaluation, and Leisure Services. Currently, about 35 courses per quarter are being offered. Non-credit programs are offered to the Baldwin County community as well.

Faculty and Students

The Baldwin County Campus uses faculty from the main campus for all educational programs stressing a commitment to provide the same high-quality educational programs currently being offered on the main campus. In 1986-87, enrollment by college was as follows:

- Arts & Sciences: 276 (20%)
- Business & Management Studies: 99 (7%)
- Education: 530 (39%)
- Nursing: 228 (17%)
- Special Programs: 188 (14%)
- Other: 39 (2%)

A profile of the student population indicates that 65% are over the age of 25. Most are enrolled in evening courses, and almost half are part-time. Fall quarter 1986 there were approximately 121 full-time and 213 part-time students for a total enrollment of 334. The initial enrollment figures for fall quarter of 1987 show an increase of 8.2%, or 365 students.

Types of Information

Information requests (1986-1987) from the USABC community were divided into requests for specific items and requests for information on specified subjects. The total requests for this academic year are divided as follows: books, 66.5%; journal articles, 34.9%; and computer assisted literature searches, 7.6%. The majority of the requests in each area are from the field of
education.

Book Requests by LC Classification Number:

<table>
<thead>
<tr>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>8.3</td>
</tr>
<tr>
<td>E</td>
<td>3.3</td>
</tr>
<tr>
<td>F</td>
<td>1.0</td>
</tr>
<tr>
<td>G</td>
<td>3.6</td>
</tr>
<tr>
<td>H</td>
<td>9.3</td>
</tr>
<tr>
<td>J</td>
<td>6.0</td>
</tr>
<tr>
<td>K</td>
<td>3.3</td>
</tr>
<tr>
<td>L</td>
<td>24.4</td>
</tr>
<tr>
<td>N</td>
<td>2.3</td>
</tr>
<tr>
<td>P</td>
<td>19.7</td>
</tr>
<tr>
<td>Q</td>
<td>2.0</td>
</tr>
<tr>
<td>R(W)</td>
<td>10.7</td>
</tr>
<tr>
<td>S</td>
<td>0.3</td>
</tr>
<tr>
<td>T</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Journal Requests by Academic Area of Requestor:

<table>
<thead>
<tr>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Non-USA</td>
</tr>
<tr>
<td>Sociology</td>
</tr>
<tr>
<td>Nursing</td>
</tr>
</tbody>
</table>

Computer Assisted Literature Searches by Database:

<table>
<thead>
<tr>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERIC</td>
</tr>
<tr>
<td>INFO</td>
</tr>
<tr>
<td>PSYC</td>
</tr>
<tr>
<td>MESH</td>
</tr>
<tr>
<td>TOUR</td>
</tr>
<tr>
<td>AARP, A400, ACHI, BBIP, GPOM, HAZE, MOOZ, NTIS, OCLC, PTSP, SFDB all used less than 1% each.</td>
</tr>
</tbody>
</table>

Document Delivery

When the planning for library and information services for USABC was done in early 1985, procedures for handling document delivery by mail and courier service were approved by the Public Services Committee of the University Libraries. The requests for specific items were to be filled by the Interlibrary Loan Department of the University Library with assistance from the Interlibrary Loan Department of the Biomedical Library for medically related requests. As the program developed, the USABC Librarian, making weekly trips to the main campus to attend committee meetings and to fill requests for unspecified material on given subjects, filled the item specific requests personally. All requests are processed on a weekly basis unless an emergency situation arises.
Requests forms for main campus materials are available in both Fairhope Public Library (FPL) and the Faulkner State Junior College Library (FSJC).

Items received from the campus libraries are taken to either FSJC or FPL, depending on where the request originated. Books are then checked out to the requestor and photocopy fees are collected by the circulation staff of the library. The books can be renewed at the library where it is picked up. Books checked out from the main campus library by a student remain that student's responsibility until returned to the main campus. Returning these books to the USABC Librarian, FSJC, or FPL does not constitute returning the book "on time." The USABC Librarian will return books checked out by a student, but any overdue fines incurred are still charged to the student. The Librarian makes every effort to ensure that the books reach the campus library before becoming overdue and will take the overdue fine from the student to the USA Library with the material if the need arises. See Appendix B for text of the official USA Libraries policy on USABC circulation.

Marketing of Services

A brochure describing library and information services for students in Baldwin County classes is distributed in each class during the first two weeks of the quarter. In each class services available are described and how, when, and where to contact the USABC Librarian is explained. Brochures are also distributed at registration and placed in USABC offices, and Baldwin County libraries. Appendix C is a copy of this brochure.

Each quarter a short notice is placed in the FSJC student newsletter regarding the availability of materials from USA Libraries. On two occasions articles written by USA's Public Relations Department were printed in the Baldwin County newspapers.

The USABC Librarian keeps lines of communication open to the public libraries of the county, meeting with the librarians as a group and individually to explain library services available through USABC. Informed, they will be able to refer any of our students who might approach them regarding library services.

Faculty scheduled to teach in the USABC program are contacted prior to the beginning of the quarter in order to ensure the awareness of library services. Help is offered with reserve materials, audio-visual set-up, and library related assignments.
The Librarian's schedule for the quarter is given to each faculty member to facilitate contact.

Interlibrary Cooperation

A librarian was added to the staff of USABC at the request of FSJC. An agreement with another institution prior to USA's involvement with Baldwin County had at one time supplied a librarian to the FSJC campus. Because FSJC has only one full-time librarian on their campus in Bay Minette and a part-time librarian on their branch campus in Fairhope, there was a need for another academic librarian in the county, especially with the introduction of USA students into the county. The stipulation for a librarian was in the original contract between the two institutions. The two institutions did not sign the contract, but the commitment to a librarian for the branch program was maintained.

In October, 1986, a formal agreement was written and signed by USABC, FPL, and the USA Libraries. This agreement put into writing the cooperation that had been building since the beginning of the USABC program. What follows is the text of the 1987-88 agreement. It is modeled on one written by St. Joseph's College (Travis, 1982).

Cooperative Agreement

The University of South Alabama-Baldwin County and the Fairhope Public Library have goals that can be addressed by a cooperative arrangement between the two institutions. Both are interested in offering the best library services possible to their patrons.

This agreement is not a finite list of rights and responsibilities for either institution, but defines the spirit of cooperation previously observed.

1. The University will instruct its Baldwin County students in the procedures and regulations in force at the Fairhope Public Library as well as the specifics of this agreement.

2. Reference services will be available to University of South Alabama-Baldwin County students in the Fairhope Public Library.

3. Students who are not eligible for Fairhope Public Library cards will have borrowing privileges normally extended to holders of Fairhope Library cards upon
presentation of a valid University of South Alabama identification card.

4. University of South Alabama-Baldwin County students will be expected to abide by all the rules and regulations of the Fairhope Public Library.

5. The University of South Alabama-Baldwin County will assume responsibility for the cost of materials damaged or not returned after a reasonable length of time. This refers to items checked out using a University of South Alabama identification card.

6. The University of South Alabama-Baldwin County may place items on reserve in the Fairhope Public Library, striving to have loan periods compatible with Fairhope Public Library circulation policies.

7. Any items purchased by the University and placed in the Fairhope Public Library remain the property of the University.

8. The Fairhope Public Library Director may request items from the University of South Alabama Libraries through the Head of Library Branch Operations or interlibrary loan.

9. The Fairhope Public Library may expect the Head of Library Branch Operations for the University to be in the Fairhope Public Library two nights a week during the University's quarter. The schedule is determined by the schedule of University of South Alabama-Baldwin County classes for a given quarter.

10. Fairhope Public Library patrons may request computer assisted literature searches, and receive the service on a cost-recovery basis. (This is the same service offered to University of South Alabama-Baldwin County students.)

11. The University of South Alabama-Baldwin County will pay to Fairhope Public Library an annual fee based on the number of quarter hours generated in Fairhope during the immediately preceding four quarter period. For the period October 19XX through September 19XX, the fee will be $______.

12. The University of South Alabama-Baldwin County will
pay to Fairhope Public Library an annual fee of $_____, in addition to the above, for janitorial services rendered for the adjacent classroom space and facilities.

An agreement was already in place between FSJC and FPL. Their contract provided for reciprocal borrowing, FSJC materials to be placed at FPL, one professional and one assistant to work part-time during the evenings, and a subsidy for staying open longer hours.

All three institutions work together to provide the best available library services to all patrons in the area. USABC's advent helped in the area of staffing as well as providing direct access to the academic collections of the USA Libraries. The following are areas of service provided on a cooperative basis:

1. Circulation - FSJC and USABC students are allowed to check out items from FPL upon presentation of valid student identification cards. FPL patrons are allowed to request items from the College and University collections through their Librarian, who first ascertains the legitimacy of the request. USABC students are also allowed to check out materials from FSJC using their USA student identification cards. Circulation periods, overdue fines, etc., are based on the lending library, not the student affiliation. Eight percent of the total items retrieved from the USA Libraries were for FSJC or FPL patrons.

2. Audio-Visual Equipment - This is a shared service, each institution making available pieces not owned by the others and taking care of everyday activities such as changing bulbs and scheduling use of equipment.

3. Reference - There is cooperation in at least three functions: reference desk service, computer assisted literature searching, and bibliographic instruction. All librarians provide the same level of service to anyone asking a reference question. Affiliation is only considered if the question cannot be answered and the patron or query needs to be referred.

4. Computer Assisted Literature Searching - Provided through the USABC librarian. Neither of the other institutions have searching facilities at this time. Thirteen and one-half percent of the searches done by the USABC Librarian were for non-USA patrons. These searches are billed as if the person requesting the search were a student of USA. No service fees are added as they would be on campus for non-USA requestors.
5. Bibliographic Instruction - Sessions are presented by the USABC Librarian for any group or class scheduled to meet during evening hours on duty at either FSJC or FPLU. Therefore, the USABC Librarian conducts library usage instruction for USABC and FSJC classes during the evening hours. Sessions are presented to English, literature, history, sociology, psychology, criminal justice, education and adult personalized studies classes. Sessions are held in the library chosen by the faculty member requesting the instruction.

Evaluation and Recommendations

During 1986-87, two reports were received by the Baldwin County campus. One was a consultant's report, the other from the Southern Association of Colleges and Schools Visiting Committee. The following statement is taken from the consultant's report concerning library services.

The current library situation seems to be working well. It is questionable whether it would continue to be functional if the student population and course offerings increase. There is a need for the development of a basic library at Fairhope which would be independent of the public library and the junior college library. The furnishings of adequate library resources necessary to the kind of extensive programs which appear to be planned would quickly swamp the resources now available. The current staff apparently meets the demands of the current enrollment. However, here again, adequate planning would lead to a rational and orderly expansion of staff to support the needs of the students in the area.

The Southern Association's report made suggestions after their representatives' site visit in August 1986. Under Section IV: Educational Programs - Curriculum and Instruction, they noted:

A problem mentioned by students in the area of library support service was that the library closes at the Bay Minette campus on Friday afternoon and does not reopen until Monday morning. Students expressed the concern that they had more time to spend in the library on weekends than at any other time. Students also expressed concern that they often had to return books to the main campus, and considered this an inconvenience and hindrance to library usage. The Committee suggests that the library schedule be reviewed to determine student time-use effectiveness.
Additionally in Section V: Education Support Services - Library and Learning Resources, they stated:

The Baldwin County Branch of the University of South Alabama is staffed with a well-qualified, full-time, professional academic librarian who is responsible for all library services provided by the University in Baldwin County. In some cases the librarian will personally check out books from the main campus library as a service to students enrolled at the Baldwin Campus. The Committee feels that this is a commendable effort to ensure access to library resources but suggests that the practice be monitored very carefully.

The concerns mentioned in the above statements are ones we are cognizant of in the library and in the University Administration. The University Library monitors the increase/decrease in service on a quarter by quarter basis.

Future

As mentioned in the introduction, Baldwin County is one of the fastest growing counties in the state of Alabama. The University of South Alabama branch campus will undoubtedly expand as more demands for higher education are made by residents of the county. Library services will grow proportionately and must eventually have a permanent collection and staff. One event that has happened sooner than expected is dial access capability to the library’s LUIS (Library User Information System) online catalog. Not only will the Branch Librarian and students have access to the University Libraries’ holdings from Fairhope, but from Bay Minette as well. Plans to expand the facilities located in Fairhope are in place and, as stated earlier, the library will continue to monitor library use and needs, and expand services where needed. We are excited that the University and the Library continue to play a vital role in higher education in Baldwin County.
Reference

Appendix A

Appendix B

UNIVERSITY OF SOUTH ALABAMA LIBRARIES
LIBRARY BRANCH OPERATIONS
Pertains to: Library services in Baldwin County (USABC)

1.0 USABC Circulation
1.1 Circulation of USA Libraries' materials. (Except IMC materials. See 1.3)
Materials will be requested by the USABC Librarian and charged out to USABC. Materials will then be charged to the requesting patron through the circulation desk of either the Faulkner State Junior College Library (FSJJC) or the Fairhope Public Library (FPL).
1.1.1 Patrons
USABC for:
A. Students with valid USA identification cards.
B. Students with valid FSJJC identification cards.
NOTE: These students may not check out materials directly from the USA Libraries.
1.1.2 Loan periods
A. At FSJJC: Two weeks, not to extend beyond the last day of classes for the current USA academic term.
B. At FPL: Three weeks, not to extend beyond the last day of classes for the current USA academic term.
C. Reserve materials (both locations): Set by professor and the USABC librarian.
1.1.3 Fines and penalties
A. Overdue fines: Assessed by FSJJC or FPL circulation desk, based on their respective fine schedules.
B. Replacement costs and rebinding fees: Assessed by the USA Libraries through the USABC librarian.
C. Blocks
1. During an academic term:
   Students may be blocked from borrowing further materials for any of the following reasons.
   a. Overdue items.
   b. Fines
   c. Unpaid charges for lost or damaged materials.
   d. Failure to return items that have been recalled within three days after recall.
   e. Checks returned for "Insufficient funds".
2. At the end of the USA academic term:
   Students who have not returned all materials and/or paid all fines, replacement costs or
Appendix B (continued)

rebinding fees will have blocks placed against them with the appropriate Office of the Registrar. These blocks will prevent them from registering for subsequent academic terms or obtaining transcripts from the Registrar until all materials have been returned and/or all financial obligations are discharged.

a. USA students are reported and cleared by the USABC librarian through the USA libraries' circulation department.
b. FSJC students are reported and cleared by the FSJC librarian.

1.2 Circulation of FSJC and FPL materials to USABC students.

1.2.1 Patrons: USABC students with valid USA identification cards.

1.2.2 Loan periods: See 1.1.2 A and C above.

1.2.3 Fines and penalties
   a. Overdue fines: See 1.1.3 A above.
   b. Replacement costs and rebinding Fees: Assessed by the lending librarian.
   c. Blocks: See 1.1.3 C above.

1.3 Circulation of IMC materials and equipment.

1.3.1 Patrons
   USABC faculty

1.3.2 Requests
   A. For classroom use only.
   B. USABC faculty may make requests through the USABC librarian or directly to the IMC. If requests are made directly to IMC the faculty member is responsible for the pick-up and return of the material and/or equipment.

1.3.3 General Information
   All policies of the IMC, as stated in the USA Libraries' Circulation Policy, will be followed.

Submitted by: Geneva Bush
Date: December 13, 1985
Approved by: University Libraries' Faculty
Date: December 13, 1985
Promulgation date: Immediately
We at the University of South Alabama Baldwin County (USA) and the USA Libraries are very proud of the excellent local library services available. The Baldwin County libraries are a part of the USA Libraries system, which includes the Mobile Public Library and the USA Libraries. The USA Libraries is one of the largest public library systems in the United States, serving a population of over 200,000 people in the Mobile area.

LIBRARY INSTRUCTION AND ORIENTATION:

USA students may use their USA student identification cards to borrow materials in local participating libraries. ID cards are issued quarterly for both incoming and returning USA students. For more information on obtaining an ID card, contact the USA Libraries.

ACCESS TO LOCAL PARTICIPATING LIBRARIES:

On the Mobile campus, students may use the USA student identification cards to borrow materials in local participating libraries. ID cards are issued quarterly for both incoming and returning USA students. For more information on obtaining an ID card, contact the USA Libraries.

The USA Libraries is one of the largest public library systems in the United States, serving a population of over 200,000 people in the Mobile area.

RESERVE MATERIALS:

The USA Libraries will assist faculty in obtaining and organizing reserve materials used in USA courses. These materials may include books, journal articles, and other resources. In coordination with the USA Libraries, the USA Libraries will assist faculty in obtaining and organizing reserve materials used in USA courses. These materials may include books, journal articles, and other resources. In coordination with the USA Libraries, the USA Libraries will assist faculty in obtaining and organizing reserve materials used in USA courses. These materials may include books, journal articles, and other resources.

Library Branch Operations

The University of South Alabama Libraries
Appendix C (continued)

<table>
<thead>
<tr>
<th>PERIODICAL TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

| AUTHOR: |

| ARTICLE TITLE: |

<table>
<thead>
<tr>
<th>SOURCE OF CITATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer database search: Database name</td>
</tr>
<tr>
<td>Citation number:</td>
</tr>
<tr>
<td>Periodical article: Title of Periodical</td>
</tr>
<tr>
<td>Volume</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Book, Title (include edition, place, publisher and date):</td>
</tr>
</tbody>
</table>

| NOTE: WARNING CONCERNING COPYRIGHT RESTRICTIONS |

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material. Under certain conditions specified in the law, libraries are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement. This institution reserves the right to refuse to accept a copying order if, in its judgement, fulfillment of the order would involve violation of copyright law.

| REMARKS: |

<table>
<thead>
<tr>
<th>PERIODICAL LOAN REQUEST FORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receipt No.: 0362</td>
</tr>
</tbody>
</table>

| Periodical articles are sent as photocopies. Actual volumes are not sent. The cost is 1.54 per page, payable upon initiating request. Undercharges are due upon receipt of article. Overcharges are refunded upon receipt of article. |
| NAME: |
| STATUS OF BORROWER: |
| Student ID # |
| USA |
| Other - Specify |
| Faculty/Staff Department |
| USA |
| Other - Specify |
| Other - Specify |
| PHONE NUMBER: |
| NUMBER OF PAGES: |
| Actual |
| Estimated |
| Do not photocopy if actual cost is over $ | Return request unfulfilled. |
| If material is unavailable from the libraries of the University of South Alabama, do you wish for us to request it from another library? |
| Yes |
| No |
| If yes, you will be charged any loan fees incurred by the USA Library. Fees are due upon receipt of material. If no, request will be returned unfulfilled. |
| AMOUNT RECEIVED: |
| RECEIVED BY: |
| BORROWER'S SIGNATURE: |
### Appendix C (continued)

**UNIVERSITY OF SOUTH ALABAMA BALDWIN COUNTY**

**Book Loan Request Form**

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE (Include edition, place, publisher and date):</td>
<td></td>
</tr>
<tr>
<td>SOURCE OF REFERENCE:</td>
<td>CALL NUMBER:</td>
</tr>
<tr>
<td>☐ LUIS Location</td>
<td></td>
</tr>
<tr>
<td>☐ USA Card Catalog</td>
<td></td>
</tr>
<tr>
<td>☐ Biomedical Library Card Catalog</td>
<td></td>
</tr>
<tr>
<td>☐ Other - Specify</td>
<td></td>
</tr>
<tr>
<td>NAME OF BORROWER:</td>
<td></td>
</tr>
<tr>
<td>PHONE NUMBER:</td>
<td></td>
</tr>
<tr>
<td>STATUS OF BORROWER:</td>
<td></td>
</tr>
<tr>
<td>☐ Student ID #</td>
<td></td>
</tr>
<tr>
<td>☐ USA</td>
<td></td>
</tr>
<tr>
<td>☐ Other - Specify</td>
<td></td>
</tr>
<tr>
<td>☐ Faculty/Staff Department</td>
<td></td>
</tr>
<tr>
<td>☐ USA</td>
<td></td>
</tr>
<tr>
<td>☐ Other - Specify</td>
<td></td>
</tr>
<tr>
<td>☐ Other - Specify</td>
<td></td>
</tr>
</tbody>
</table>

If material is unavailable from the libraries of the University of South Alabama, do you wish for us to request it from another library? ☐ Yes ☐ No

If yes, you will be charged any loan fees incurred by the USA Library. Fees are due upon receipt of the book.

If no, request will be returned unfilled.

I hereby accept responsibility for the requested loan as outlined in the Rules for Interlibrary Loans.

Signature

**LIBRARY USE ONLY**

| VERIFIED: LC NUC BM CBA DA Other |  |
| REQUESTED OF: |  |
| RECEIVED: |  |
| DUE: |  |
| RENEWAL REQUESTED: |  |
| DUE: |  |
| RETURNED: |  |
| AMOUNT DUE: |  |
| AMOUNT COLLECTED: |  |
| COLLECTED BY: |  |
| DATE: |  |
| REQUEST RECEIVED BY: |  |
| REQUEST RECEIVED AT: |  |

**REMARKS:**
Appendix C (continued)

UNIVERSITY OF SOUTH ALABAMA LIBRARIES
BALDWIN COUNTY

COMPUTER ASSISTED REFERENCE SERVICE -- REQUEST

<table>
<thead>
<tr>
<th>NAME</th>
<th>DATE</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PHONE NUMBERS -- HOME</th>
<th>WORK</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STATUS -- CHECK</th>
<th>STUDENT ID#</th>
<th>OR</th>
<th>FACULTY/STAFF DEPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td></td>
<td>USA</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
<td>OTHER</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE OF SEARCH --</th>
<th>DISSERTATION/MASTER’S THESIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RESEARCH</td>
</tr>
<tr>
<td></td>
<td>TERM PAPER/PROJECT</td>
</tr>
<tr>
<td></td>
<td>CLASS RELATED ASSIGNMENT</td>
</tr>
<tr>
<td></td>
<td>OTHER -- SPECIFY</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEARCH TOPIC -- PLEASE RECORD, IN YOUR OWN WORDS, A FULL DESCRIPTION OF THE SUBJECT ON WHICH YOU ARE SEEKING INFORMATION. INCLUDE ANY SYNONYMS OR DESCRIPTIVE TERMS YOU WISH INCLUDED OR EXCLUDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEARCH LIMITATIONS: A. DATES TO BE SEARCHED</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>B. LANGUAGE: _ENGLISH _ ANY LANGUAGE</td>
</tr>
<tr>
<td>C. ANY OTHER RESTRICTIONS?</td>
</tr>
</tbody>
</table>

LIST ANY RELEVANT CITATIONS ON THE BACK OF THIS SHEET. THIS WILL GREATLY FACILITATE SEARCHING AND WILL ENHANCE RELEVANCE OF SEARCH TO YOUR NEEDS.

I AM AWARE THAT NO GUARANTEE AS TO RESULTS CAN BE MADE PRIOR TO SEARCH. THE MAXIMUM COST ACCEPTABLE TO ME IS $______

REQUESTER’S SIGNATURE

SEARCHER’S SIGNATURE
1. The commonalities and differences between public and academic libraries.

The Library of Congress and Dewey Decimal Classification systems are compared. The distinction is made between popular and scholarly sources of information. Library automation and nonprint formats are briefly discussed.

2. The efficient use of the card catalog in conjunction with the Library of Congress subject headings.

Students are encouraged to commence research projects at the card catalog rather than browsing in the stacks.

3. The utilization of selected basic reference sources.

Encyclopedias are presented as beginning points for research projects. The use of statistical compendiums is recommended as a means of locating factual information to support a position. Selected style manuals, dictionaries, thesauri, and bibliographies are presented.

4. The identification and value of information published in periodical literature.

The availability, arrangement, and appropriate use of subject-specific indexes and abstracts are described.

5. Library services, procedures, and policies.

In order to minimize the inherent disadvantages in providing long-distance support, the library assumes responsibility for providing ADP with resources and services commensurate with those of residential students. Each newly admitted ADP student receives a copy of the college's Library Handbook, which contains information regarding reference services, circulation and interlibrary loan procedures and policies, and cooperative arrangements. Reference is made to the process for requesting and/or returning library materials or photocopies. Appropriate library staff members are identified according to their functions. The library staff encourages students to communicate their information needs through correspondence, telephone conversations, or individual "point of need" reference appointments.

The library staff intends to develop a method by which to assess formally the effectiveness of the orientation session and subsequent library services. A random sample of enrolled adult students could be queried through a questionnaire mailed to their
homes. At the time of program completion, each student might be asked to evaluate library services. A majority of ADP students who responded to a survey conducted for the college's recent self-study rated library services as very good. At the present time, the low program attrition rate and numerous positive interactions between the library staff and adult students continue to be informal indicators of successful educational outcomes.
References


After Automation -- What Next?

Eileen Chalfoun

Community College of Vermont

In a recent newsletter of ALA’s Library Instruction Round Table (LIRT), librarians were asked questions about issues facing library instruction in the future. The issue most frequently mentioned was the "need for full integration of technology into the BI process," that is, not only instruction in how to use the technology, but how to use it in library instruction (American Library Association, 1987, p. 3). The second challenge is how to interface the old standard library tools with the newer forms of library automation. Additionally, the next issue confronting librarians is the human aspect of library automation. It is easy to notice that too much emphasis "tends to concentrate on hardware and software requirements without giving full consideration to the tasks to be performed, the interaction between the various aspects of the tasks, the support equipment, and the people performing the tasks" (Williams, 1987, p. 97).

For the last five years Community College of Vermont (CCV) has been involved in a planning process designed to improve library service to students at all five state colleges, and included in this group are the 3,200 students enrolled in CCV's non-campus programs throughout the state. (See attached grid). In that planning process the following service goals were identified to provide adequate library and information services and resources:

1. Support the instructional program through formal and informal bibliographic instruction.

2. Provide guidance in the pursuit of information, rather than information itself.

3. Provide a written library guide for each degree program.

4. Facilitate access to library collections through direct personal service, by moving to increase dedicated professional reference service during times of heavy student use of the libraries.

5. Facilitate access to library collections for students not taking courses on a campus by developing appropriate reference services comparable, in both scope and cost to
the student, to that provided on campuses.

6. Provide reference librarians with additional specialized training for new degree programs and for existing programs where needed.

In terms of where we are now, Community College can be proud of the progress we have made in the last few years in addressing these goals. We have site office book collections that total approximately 7,000 volumes. We have provided indexes to serials, as well as the means to obtain hard copy journal articles through a statewide facsimile transmission system. We have written a research manual to help students learn to do research in a variety of ways, designed a computer program and database to help our instructors teach more effectively, and begun to explore the possibilities of bibliographic instruction in a learning environment as diverse as CCV's. We provide a reference service for students doing research projects or trying to complete class assignments that require an information search of some kind.

In terms of our cooperative efforts within the Vermont State College system, we can now provide dial-up access to all existing on-line catalogs within the state, and within one year plan to implement a circulation and bookings system on an individual basis to make interlibrary loan a reality. We will be part of a technical advisory committee deciding how to link all of the systems in the state together. Perhaps we will use some sort of electronic mail system to do our bookings of print and non-print materials within the state. We will be using more CD-ROM databases to provide reference service to our students, subscribe to a national database such as Dialog or BRS, and consider an on-line subscription to all of the existing serials indexes.

If one looks at the scenario of a 1970's college student trying to find information compared to a student in 1990, there are some very interesting changes. In 1970 the student would start to look for information in a library setting by going to a designated library building, talking to a reference librarian in person, browsing through a card catalog with actual cards, filling out a request form, and waiting for the book. In 1990 Susie is dialing in from her dorm room to browse on a computer screen for any book or journal which may be relevant to her search. She calls through electronic mail to see if the material is available and then has it sent or mailed directly to her home. Quite obviously, all of this raises some important questions for CCV about who, how, and at what cost information specialists are going to provide this kind of access to information, and library use instruction to all of the College's instructors, staff and
students.

As part of its current academic planning, Community College of Vermont is examining some basic assumptions upon which the school operates in order to plan a library instruction program to suit the needs of its students. We hold the following beliefs about our students and program to be true: a) our students are adult learners who are best served by help in becoming self-reliant and self-directed in their educational and career pursuits; b) we have an individualized degree program that accepts credit for verified college-level learning from various sources outside the College, that helps students tailor their coursework around their particular goals consistent with college requirements, and that is documented individually for review by an Academic Review Board; c) there should be a balance between content goals and academic skills or competences in all courses; d) we use teaching-learning methods that foster active student involvement with the material; e) that a strong liberal arts or general education is the most versatile and enduring form of education in the first two years of college and that it is truly a significant form of occupational education at this level, both in and of itself as well as having a symbiotic relationship with academic concentrations or specialties; and f) that a fundamental factor in self-reliance and growth, for students and for the college itself, is the willingness to undertake self-assessment—the perspective that values and acts upon the quest for wider horizons and better performance based on analysis.

The College is committed to the idea that the abilities to find, sort and use information are universally accepted goals of higher education. In fact, these are survival skills which are important not only in the academic world, but in family life, in the pursuit of a career, and involvement in the community. But the students at Community College of Vermont, for the most part, do not come prepared to face some of the tasks required to write a business report, analyze statistics, or make sound consumer decisions. The majority do not know how to gather and process information in a world highly dependent on that activity, and their instructors are not helping them to develop practical research skills.

Now that the college boasts of an automated library system, the library staff must find ways to integrate our new technologies into the instruction program. CCV students are not served well with traditional library instruction methods, and the library staff is challenged to find ways to help them learn how to gather and process information. We are continually searching for ways to integrate research methodologies into the curriculum, to train
part-time instructors to implement these methodologies, and to help them to access information, both in academic libraries and in various places in their own communities.

The College is attempting to assist its part-time instructors with their teaching methods and encouraging them to emphasize scholarship. This includes finding ways to assess student needs and abilities, develop written statements of objectives, develop a methodology which can be measured, and to outline evaluation procedures. Core college courses are being identified and used as models in teaching research methodology to provide course-integrated instruction.

In order to accomplish these objectives, various activities are planned: workshop sessions for adjunct faculty and students, resources materials for faculty and students such as instructor bulletins and subject research guides, and meetings to plan and implement the integration of research methods into particular college courses. The blueprint for instruction involves the following elements:

1. Organization: Students will be able to describe how things are organized in a library system in order to find what they need.
   a. Know what an alpha/numeric cataloging system is.
   b. Be able to use periodical indexes.
   c. Know how to look up subject headings.

2. Selection: Students will know how to select appropriate resources.
   a. Define the contents of a reference collection.
   b. Describe the nature and purpose of a bibliography.
   c. Be aware of the breadth as well as depth of information sources.

3. Application: Once materials are located, students will know how to use them.
   a. Be able to take notes and paraphrase.
   b. Maintain an orderly system of collecting information.
   c. Assess when to use quotations.
   d. Use parts as well as the whole book.

4. Comprehension: Having mastered the above skills, students will be able to focus on information relevant to a topic or objective.
5. Production: Students will be able to prepare materials for use in a written or oral report.

The methodology used to accomplish these objectives include lectures, hands-on exercises, computer software, and audio-visual aids.

One of the keys to learning these skills is a well-designed library or information-gathering assignment. As McWilliam and Fatzer describe it in the spring issue of AQ, "First, it [the assignment] should reinforce the intellectual content of classroom lectures on information sources and strategies in a given discipline. Second, it should help students develop practical skills by leading them through logical steps to locate, evaluate, and utilize information in ways that have obvious relevance to future information needs, e.g., writing a term paper." (1988, p. 333). In other words, the assignments should be relevant to a student's life and work, and for this reason, library staff need to work closely with instructors or faculty to assure relevance and consistency in this area.

CCV has made a long-term commitment to provide library instruction as part of its academic program. As we have stated in Biblio-Tech, "The amount of time we spend in school or formal training programs is small in proportion to our life span. Most of our learning has to be self-directed, and takes place in a real-world setting. In our society, college graduates are expected, and sometimes told, to be independent learners. The level of career and personal success we achieve depends to a large extent on how well we learn to identify, gather, and use information" (Community College of Vermont, 1987, p.4).

This level of College commitment is what enables all of the library staff to continue providing BI to students in a non-campus setting.
### Library Automation Project

<table>
<thead>
<tr>
<th></th>
<th>1987</th>
<th>1988</th>
<th>1989</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jul</td>
<td>Aug</td>
<td>Sep</td>
</tr>
<tr>
<td>Communications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library Access</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dial-up Access</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCLC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barcode Readers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bibliographic Data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bibliography to 1985</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bibliography 1985-1987</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bibliography 1987-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bibliographic Software</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-line Cataloging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference Access Catalog</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Access Catalog</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authority Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Union List of Periodicals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative Software</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automated Circulation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off-line Circulation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory Conversion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borrower Registration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials Selection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PO Processing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receipt Processing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reserve Room Maintenance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serials Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials Booking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquisitions Maintenance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Software</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patron File Creation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Batch Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Menu Software</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housekeeping/Backup</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reports</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Planning, development**
- **Programming, testing**
- **Available for use**
- **Decision pending**

9-21-87
References


Reaching Remote Users--Library Services

Through a Systemwide Computing Network

Judith A. Copler
Indiana University

The Academic Information Environment (AIE)

At Indiana University and other academic institutions across the U.S., university computing centers are developing electronic campus information environments on their campus networks. At IU the computing center mechanism for delivering these information services is a menu-drive (see Table 1) "Academic Information Environment" operating on a Digital VAX 8600. In the spring of 1986, Indiana University's Bloomington Academic Computing Services (BACS) put together a number of information services including connections to off-campus computing services, on-line databases, electronic mail, a campus telephone book, audio-visual and library services, and gateways to other large networks. Full-time IU faculty members and graduate students were given accounts on the AIE.

AIE Concept and Libraries

Planning for electronic library services on the AIE was done by a task force comprised of librarians and computing center personnel. Initially, the group looked at the current services and resources being offered by the libraries and determined which of these could be converted to or enhanced in some way by computer technology. The items that were identified became the first set of library services offered on the AIE.

Once the initial set of services was in place (within four months), the group relied on comments from users to either refine the initial offerings or as input as to what new services should be added during phase two.

Actual implementation was done by the computing center. Test versions of the system were made available and evaluated by the task force members before the services were made available to the university constituency.

Library Services on AIE

On February 1, 1987, library services were released to the
university community. Accessed through the main menu (see Table 2), these included:

1. General Information: Library hours, location of branch libraries and key contact people.

2. BDS (Bloomington Delivery Service): Expedited on-campus book and article delivery service.

3. Interlibrary Loan: Traditional interlibrary loan service.


5. Reference Services: Ready reference, title verification and in-depth research.

6. Library Tours: General information and tour scheduling.

Later in the year book renewals and a gateway to OCLC were added. During 1988, class reserve requests, scheduling of on-line searches and media showings, a graphics-based library location map and patron status check of ILL and BDS will be added.

Pitfalls

Through the AIE the library has been able to extend access to traditional services and to provide new ones. In working with university computing centers to provide network information environments, librarians must be aware of potential pitfalls in the planning process:

1. Not perceiving the AIE as a totally integrated set of information services. There seems to be a desire among librarians for library services to be a separate, identifiable component of these larger environments. Experience in the on-line industry tells us that it is almost inevitable that users will associate services with the distributors.

2. Believing that the on-line catalog must be the first step in configuring library services in a network environment. Although in many cases the automated card catalog will be the focal point of any library services offered, developing the catalog is complex and can take years. Other user services hinged upon this could suffer.

3. Failure to re-examine the internal operating structure
of the library and to take advantage of the opportunities and flexibility computing can provide. In other words, the tendency to reproduce existing paper systems.

4. Belief that face-to-face interaction with patrons is required for good reference service and failure to learn to work with users in the new electronic environment.

5. Feeling that we have already met the "automation challenge" by providing OCLC, WLN, and commercial on-line services within the physical confines of the library.

6. Believing that computing center people know how libraries work and what services we offer. Even a simple word like "database" has a slightly different meaning to the non-librarian.

7. Belief that librarians know how computing centers work and what services we offer.

8. Not creating and communicating a vision of the new electronic environment, to the library staff and user community.

Impacts

Statistics collected during the first year of library services on the AIE show that BDS (the faculty delivery service) is by far the most popular component of AIE. Between 400 and 600 items per month are requested electronically and mailed to faculty members all across the state. The next most popular offering is access to OCLC over the network. Available since September, 1987, almost 2,000 accesses were made in the eight months. General information (hours, personnel, etc.) were accessed 870 times during the same period. The least popular service has been requests for library tours, with only three accesses.

Records were also kept on subject disciplines of the faculty members who used library services on AIE. The biology department used the services most frequently followed by political science, the business school, the librarian's themselves, and the education department. OCLC was heavily used by the humanities faculty although they tended not to use other AIE library services.
The Future

Recognizing that we are in an era of "networking," librarians should seize the opportunity to provide remote access to library services. In light of this, we should expect the following changes to occur:

1. Extended service hours and staff beyond the hours when the library is physically open.

2. Menu driven electronic information environments will reduce the need for and change the concept of "library instruction."

3. Resource sharing will become a direct function without librarian intervention; that is, linking on-line catalogs will remove the need for most bibliographic verification.

4. Increase in rapid 24-hour turnaround campus delivery services and telefacsimile for books and photocopies. Commercial document delivery services faster and cheaper than traditional ILL.

5. New emphasis on relevancy of information. Librarians will aid in the development of "user profiles" based on the interests of users.

6. New emphasis on electronic storage for archival preservation.

7. New services like electronic table of contents and direct user access to commercial document delivery made possible by the network.

8. Managing a new kind of publishing, "electronic word of mouth," to use a phrase coined by the late Hugh Atkinson. Scholars using networks to share research results while they are still timely.

9. Fees for service and departments having more control over selection of the information provider. Academic units paying for and making some services available on the network and by-passing the library.

10. Possibly in the future the library could act as a database producer, selling information to the computing center for use on the network.
11. New era of accountability as we have an accurate way of maintaining usage statistics on the services we offer. Little used and non-cost effective services will be abandoned.

Conclusion

New technology developments are creating opportunities for libraries to extend their services beyond the walls of the library. In this new and larger information environment, we are working more closely than ever with other campus information providers.

Electronic information networks can meet the demand for a broad range of integrated information resources. Libraries should take the initiative to be included and involved in the development of these services. The ultimate goal of the university, its computing center, and its library is to build a strong base of instructional and research support for faculty and students. This goal is best met through information networks. To be effective these networks must provide access to commercial on-line databases, CD-ROM databases, document delivery and other services that were traditionally the exclusive realm of the library.

Table 1

IU Academic Information Environment

Main Menu

[5] File Services

[C] Comments [P] Phone [Q] Quit/Logout
[$] VMS Command [U] Up one Menu [T] Top Menu

TYPE 1-9, or an Option Letter
Table 2

IU Academic Information Environment

Library Information and Reference Network (LIRN)

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1]</td>
<td>Information: Hours, Branches, Department</td>
</tr>
<tr>
<td>[2]</td>
<td>Library News</td>
</tr>
<tr>
<td>[5]</td>
<td>Delivery Services (BDS, ILL)</td>
</tr>
<tr>
<td>[6]</td>
<td>Purchasing Library Materials</td>
</tr>
<tr>
<td>[7]</td>
<td>Reference Services</td>
</tr>
<tr>
<td>[8]</td>
<td>Request Library Tours</td>
</tr>
<tr>
<td>[9]</td>
<td>Library Services Suggestions</td>
</tr>
<tr>
<td>[10]</td>
<td>Coming LIRN Services</td>
</tr>
</tbody>
</table>

[C] Comments  [P] Phone  [Q] Quit/Logout

TYPE 1-10, or an Option Letter
Table 3

LIRN Use Statistics

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BDS</td>
<td>300</td>
<td>608</td>
<td>452</td>
<td>287</td>
</tr>
<tr>
<td>ORDERS</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>COMING SERVICE</td>
<td>47</td>
<td>82</td>
<td>63</td>
<td>39</td>
</tr>
<tr>
<td>ILL</td>
<td>16</td>
<td>81</td>
<td>36</td>
<td>26</td>
</tr>
<tr>
<td>INFORMATION</td>
<td>162</td>
<td>160</td>
<td>162</td>
<td>130</td>
</tr>
<tr>
<td>LIBRARY TOURS</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>NEWS</td>
<td>5</td>
<td>63</td>
<td>57</td>
<td>46</td>
</tr>
<tr>
<td>OCLC</td>
<td>112</td>
<td>418</td>
<td>295</td>
<td>242</td>
</tr>
<tr>
<td>REFERENCE</td>
<td>13</td>
<td>12</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>RENEWAL</td>
<td>37</td>
<td>46</td>
<td>29</td>
<td>64</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>9</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>SUGGESTIONS</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>707</td>
<td>1482</td>
<td>1128</td>
<td>863</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BDS</td>
<td>69</td>
<td>481</td>
<td>150</td>
<td>478</td>
<td>2825</td>
</tr>
<tr>
<td>ORDERS</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>COMING SERVICE</td>
<td>12</td>
<td>51</td>
<td>10</td>
<td>38</td>
<td>342</td>
</tr>
<tr>
<td>ILL</td>
<td>4</td>
<td>62</td>
<td>20</td>
<td>43</td>
<td>288</td>
</tr>
<tr>
<td>INFORMATION</td>
<td>40</td>
<td>125</td>
<td>19</td>
<td>72</td>
<td>870</td>
</tr>
<tr>
<td>LIBRARY TOURS</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>NEWS</td>
<td>9</td>
<td>38</td>
<td>6</td>
<td>38</td>
<td>262</td>
</tr>
<tr>
<td>OCLC</td>
<td>52</td>
<td>318</td>
<td>124</td>
<td>253</td>
<td>1814</td>
</tr>
<tr>
<td>REFERENCE</td>
<td>5</td>
<td>22</td>
<td>1</td>
<td>6</td>
<td>93</td>
</tr>
<tr>
<td>RENEWAL</td>
<td>8</td>
<td>42</td>
<td>18</td>
<td>43</td>
<td>287</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>3</td>
<td>10</td>
<td>0</td>
<td>10</td>
<td>61</td>
</tr>
<tr>
<td>SUGGESTIONS</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>202</td>
<td>1159</td>
<td>348</td>
<td>984</td>
<td>6873</td>
</tr>
</tbody>
</table>
Unconventional California University Develops a Successful Model for Fast-Paced Library Service to Extended Campuses

David Michael Davis
Colton Public Library

and

Anne-Marie Secord
National University

Californians are often thought of as untraditional and on the move. It shouldn’t be surprising then that National University, based in San Diego, California, has developed a way of education and a library service that is unique.

National University is a non-profit, independent university that began fifteen years ago and has grown to twelve campuses with forty learning centers in California, Nevada, and Costa Rica. Accredited by the Western Association of Schools and Colleges, some 14,000 students pursue more than 100 degree programs primarily at the graduate level. The most popular courses are in business, education and psychology.

The founders planned a technologically up-to-date university with the clearly defined mission of enabling working adults to obtain degrees in locations and at times convenient to the students. Since its inception, the university has relied primarily on the intensive one-month, one-course-at-a-time format as the basic module of instruction. Most courses meet two nights per week from 5:30 P.M. to 10:00 P.M. for a four week period and on one Saturday for four hours. A five-quarter unit course at National University involves a total of 40 classroom hours. Students are therefore able to create a pattern of coursework that fits into their schedules on a month-by-month basis—e.g., interrupting their studies for a month or more when the demands of work, family or military duty are too heavy.

The success of the intensive course schedule coupled with the tremendous growth rate, decentralization, and geographical spread of the university has impacted strongly on the evolution of library service. The result has been a fast-paced and highly unique library system.
Presently there are five extended campus libraries with facilities in excess of 5,000 square feet: San Diego, Irvine, Vista, Sacramento and Los Angeles. Six smaller facilities are located in Palm Springs, Las Vegas, Costa Rica, Oakland, Fresno and San Jose.

Function of an Extended Campus Library

The Irvine Library of the Orange County campus can be used to illustrate the types of services offered by a "typical" National University extended campus library and as an example of the way in which the overall library system functions.

National University classes have been taught in Orange County since 1981. Dramatically, the student population has doubled every year. Today, the campus has approximately 2,000 students and is growing faster than ever. Classes are held at the central Irvine facility or at one of ten remote learning centers spread over the 750 square mile Orange County area. In August 1986, because of the rapid growth of the Orange County campus, the San Diego based University Director of Libraries and Learning Resources hired a managing librarian to establish and to direct a library located at the central campus facility in Irvine. An assistant librarian was hired to supervise reference services and an audiovisual specialist to coordinate media services. By the Irvine Library's opening day, January 6, 1987, 350 periodical subscriptions and 7,000 volumes of books had been selected, ordered, cataloged and shelved. Audiovisual equipment had been purchased and housed in the library as well.

Technical Services

A key factor in setting up a library quickly and in providing efficient on-going service is the utilization of a centralized Technical Services Department for all campus libraries. This processing center is housed at the San Diego Campus Library and provides the Irvine Library with automated acquisitions, cataloging, materials processing, and invoice payment. The Technical Services Department employs cataloging personnel who use the OCLC network to catalog materials for the Irvine Library, as well as other campus libraries, thus avoiding duplication of personnel, equipment, telecommunications and network charges.

On-Line Catalog

National University has very sophisticated computerization. Two IBM mainframes are the brainpower behind a massive operation
which allows some 250,000 university-wide daily transactions. The current library on-line catalog component of this system, ATRACE, provides the Irvine Library and each Orange County campus learning center with quick access to university-wide materials holdings via easily accessible mainframe computer terminals. For example, a student at a remote learning center, using a terminal and typing in author, title or subject, can determine if a book is owned by any campus library. Recently, National University acquired the NOTIS integrated library system. The library's ALIBRI files are now being converted to MARC format and the process of retrospective conversion using UTLAS is underway. Periodicals, which are currently uncataloged, are scheduled to be a part of this system within the next two years. The NOTIS system will make it possible for users to do abbreviated Boolean searching combining any two designated categories. It will also be possible to know whether a specific item is checked out, on reserve, on the shelf, on order or in the reference collection. A student will not only see what the library owns but will be able to instantly determine the odds of obtaining a particular item through the campus library.

Materials Collection

The Irvine Library's collection is housed in a centrally located 5,000 square foot facility approximately ten minutes by car from the University of California at Irvine. The library, which is financed on a regular basis within the overall library system budget, supports the instructional program of the entire Orange County campus including the ten remote learning centers. The new 7,000 volume collection has been selected with great care in order to accommodate a student's needs in fulfilling most course assignments. Quarterly meetings as well as a monthly direct mailing encourage faculty to participate in the development of the Irvine collection. Care has been taken not to build too large a collection of duplicates or titles that may be useful for only a limited period of time. However, a collection of this size is not adequate to meet the needs of advanced graduate research. For this reason, the effectiveness of a speedy intra- and inter-library lending service is a critical factor in ensuring that materials needed for research will be quickly available.

Intra- and Inter-Library Loan

The Irvine Library can access all of the library resources of each campus library. If materials are not held in Irvine, they will be provided from one of the other campus libraries such as the 35,000 volume San Diego facility. A shuttle runs between Irvine and San Diego three times each week. In addition, a twice
weekly shuttle runs from the Irvine Library to each of the ten remote Orange County learning centers. For example, a student at one of the learning centers can identify a book on the ATRACE catalog using a mainframe computer terminal, contact the Irvine Library on a toll-free telephone line where library personnel will facilitate locating the item within the library system and forward it directly to the student at the center. Typically this takes no more than three days. If an item is unavailable within the National University system, the Irvine Library can access the University of California's MELVYL on-line catalog system via a terminal and modem. A request is then sent directly to the University of California at Irvine or the nearest University of California holding library. Beginning this year, in order to further facilitate inter-library loan, the Irvine Library will be able to locate an item by utilizing a newly acquired personal computer, printer and modem with OCLC dial access.

National University's audiovisual software collection is housed in a separate facility in San Diego. Materials can be requested by faculty directly or through the Irvine Library's audiovisual coordinator. Delivery is by the above mentioned shuttle system. This year, the Irvine Library will begin to develop its own videocassette collection in order to provide quicker access to materials which are used extensively by faculty throughout the Orange County campus.

Reference Services

The Irvine Library has a large and rapidly growing reference collection as well as a wide range of indexes including two newly acquired CD-ROM systems: INFOTRAC and NEWSBANK. Questions are answered both in person and by telephone. A toll-free number is available from each learning center and queries are forwarded directly to the Reference Department. Telefacsimile machines, that instantly transfer pages of information over the telephone lines, also serve as an important link between the campus libraries and the learning centers. The Reference Department staff can photocopy an article or information from an index and telefax it to another campus library or learning center.

The Irvine Library also utilizes the DIALOG on-line information retrieval system. A fee is charged to students but faculty involved in research can access the system for free. All searches are performed by a reference librarian who conducts the reference interview either in person or on the toll-free line. In most cases, a search is done the day of the request and the results telefaxed or shuttled the next day to the learning center. Periodical articles housed at the Irvine Library can be supplied
immediately while others are verified using the OCLC database then requested via inter-library loan.

**Bibliographic Instruction**

National University's goal is to insure that all students will be able to make efficient use of information. A library bibliographic instruction program has been designed to help students in areas that call for effective research. The librarians visit classes at the various course sites and present an indepth slide show that enhances the "Library User's Guide" which all students receive. Recently, a system-wide library instruction committee has been formed in order to: (a) establish minimum student library competencies, (b) work with the administration to revise the curriculum to include a bibliographic instruction component to be team-taught by the content instructor and the librarian, (c) identify undergraduate and graduate level classes that can be interfaced with bibliographic instruction, and (d) develop ways to include more library assignments in the instructional curriculum.

**Marketing**

The Irvine Library is always looking for new ways to market its materials and services. A monthly campus newsletter includes articles on new books and a library calendar. The informational "Library User's Guide" is stuffed into new books as they are sold to students at the bookstore. Library usage is also a basic component of the training program for university counselors. Faculty are informed about the range and quality of library service at quarterly meetings and through monthly direct mailings. Finally, professional library staff visit as many Orange County classrooms as possible each month in order to make students aware of library services and our convenient delivery system. By marketing its program, the Irvine Library increases its visibility among faculty and students and strengthens its link in the life of the campus.

**System-Wide Future Plans**

The National University library system has been a great success in terms of increasing library usage and faculty/student support. But the library system is not looking back upon its success, nor is it standing still to catch its breath. There is still much more that can be done.

Currently, the university library system is moving ahead by identifying ways in which it can better assist adult students in
accomplishing their unique and diverse educational goals. A survey evaluation was conducted at each campus library, recommendations for improvement identified, and the process of planning for the future has begun. Several new projects are under consideration:

1. The library system anticipates that, in order to improve material turnaround time, students will be able to access the new NOTIS on-line catalog at home via a personal computer and modem. Furthermore, a user-friendly message system capability in this system will be necessary so that users can place requests for materials on-line.

2. The library system is studying the feasibility of housing some reference and reserve materials at each learning center during the run of a particular course in order to allow students quicker access to the specific items they need to complete assigned reading and papers.

3. Although reciprocal borrowing agreements exist with some major university libraries within California, further expansion of resource sharing will be promoted in the more rural areas where public libraries are the only local facilities available to learning center students.

4. Telephone answering machines are necessary at each campus library in order to accept collect calls and record information and requests twenty-four hours a day.

5. Finally, incorporating the new generation CD-1 technology developed by Phillips and Sony into each campus library environment would be a major accomplishment. CD-1 combines full motion visuals, color still-frame images, graphics, text and audio that can vary from mono for speech applications to digital hi-fi stereo.

The National University library system continuously evaluates technological developments in order to find new and better ways of providing fast-paced service to extended campuses. Determined to meet the needs of its users, the National University library system is the informational center of a tremendously fast growing, highly decentralized and technologically up-to-date university.
On or Off Campus:

The Prospects for Bibliographic Instruction

Evan Ira Farber
Earlham College

It's a real pleasure to be here in this lovely city. It's been a while since I've been in Charleston. The last time was ten years ago, speaking at the Southeastern Conference on Approaches to Bibliographic Instruction. Now, 1978 may not seem like a long time ago, but in terms of BI history it is. After all, the BI Section of ACRL had not even been established then. Now it has about 3,000 members! BI has come a long way since then, and it's good to be reminded of those times.

I also feel privileged to be here. I have enormous respect for the objectives of this group. I've been much impressed by reading the proceedings of earlier conferences. In terms of BI, my library has it easy. Sure, we've done a good job at Earlham, have an effective program, and have done some very interesting things -- things worth talking about and writing about. And I'm proud of all that. But, compared with most of you, think of the advantages we have: a small number of faculty, most of whom are strongly committed to teaching; a select group of students, most of them with good SATs and highly motivated in their academic work; a functional and attractive building, with a more than adequate collection; a good staff; and finally, a very supportive administration. If I hadn't succeeded with all those advantages, I should be ashamed. So while what we've done is commendable and noteworthy, it was relatively easy compared to many of your situations. That's why I feel privileged to be among you -- what you're doing deserves my respect and admiration.

In that sense, though, I speak pretty much from ignorance. Or, rather, unfamiliarity. And that permits me to say almost anything -- you can just attribute my extravagances or simple-minded statements to my ignorance. But, I'm not going to try to get off the hook so easily. I think I do have something to say to almost any BI librarian. Even if you think I've lived in an academic utopia, we do have our problems, but, more to the point, I've visited any number of campuses around the country, seen all types of BI programs, every variety of obstacle and solution one could imagine.
So, in another sense, I can speak from experience — not, to be sure, experience identical to yours, but experience that gives me a different perspective, and I trust that perspective will be helpful.

In my opening sentences a few minutes ago, I said — "we've come a long way" in the BI movement. When I was reading over that comment — "we've come a long way" — I had to pause — Is that true? Have we really come a long way? In numbers, certainly — but in method? In what we do? In how we do it? And why we do it? For those matters, I'm not so sure we've really come a long way.

Last year a book came out with the very provocative title: Bibliographic Instruction: the second generation (Mellon, 1987). That title implied for me a new wave, a quantum leap forward. Well, there were many good things in the book, and perhaps I'd expected too much, but I certainly couldn't see anything that resembled what a second generation implies to me. Progress? Sure. Especially in numbers of BI librarians and number of students reached. In publications? — out of sight! But major advances? A "second generation" of BI? I really don't think so. Well, maybe I should have known. I've said myself many times: "The wheels of education turn slowly."

But now — soon, that is — things are going to be changing much more rapidly. And that change is going to come about because of technology. You've heard, or read, much of this before I'm sure, but just let me go over some of the changes now taking place.

There are really four major areas of technological change. These areas are: First, computer technology; second, telecommunications; third, storage technology; fourth — and this is not really a technology, but its advances depend so much on technology and its findings will have such an impact on technology that I don't hesitate to include it — that fourth area is the cognitive sciences and in particular, artificial intelligence. Some of them have already had a major impact; my point, however, is that the confluence of these four areas, computer science, telecommunication, storage technology, and cognitive science, the interaction among them will, together, change the ways libraries operate. And because BI, as the way to helping users make more efficient and effective use of libraries, is — in my opinion — so central to the idea of good library service, they will also affect BI. And, as I'll show in just a bit, they'll even have a special significance for BI.
Computer technology has been and is, in a real sense, the driving force behind these others, as well as the technology that permits them to develop. Up to the development of the computer, information was stored either as text, pictures, or as recorded sound. Now, each of these systems can be translated into a binary base and then expressed by the computer in whatever form is more appropriate. All components of our culture, then, can be stored -- and retrieved -- in a unified system.

In only a few decades, we've seen marvelous advances and incredible applications. But these are just the beginning. As it's been widely reported we are on the verge of the next computer revolution, what is generally termed "fifth-generation" computer systems. This coming generation will be able to process much more information, more quickly, and at the same time, due to new chips and developments in superconductivity, the equipment will be much smaller and less expensive -- but this is not what's primarily remarkable. What is, or will be, is their power to handle not just numbers, but symbols, words, pictures and human speech and to reason -- to acquire and interpret information -- and to be communicated with in everyday language. Even the most computer-phobic of us -- and I'm almost in that group -- will be able to work as easily with computers as we do now with pencil and paper -- and almost as conveniently.

The second major development is telecommunications. Information will be able to transmitted over long distances, almost instantaneously. The FAX systems we have today are puny compared with what will be soon available. Moreover, information could be entered in one form and emerge at the other end in another form. That is, now data can come out as pictures; eventually, it may be possible for one language to go in and another to emerge -- for the telecommunications system to do the translating. Distances will be no problem; time will be no problem; the format will be no problem.

The third area of development is storage of information. Those of you who talk with students and others about CD-ROMs enjoy -- if you're at all like me -- impressing them with the fact that this five-inch disk contains information equivalent to 200,000 typewritten pages. But the technology used in CD-ROMs is just the beginning. Optical storage as we know it now provided a 100-fold improvement over magnetic storage. Research now going on could increase the storage capacity of disks by an even greater factor ("Optical Disc," 1988). William Nugent, of LC's Automated Systems Office, has said that optics technology is going to be the field
for the next 50 years, and that in a few years we can have as much storage capacity as we want. With the ability of disks to store images as well as data, and soon to be erasable and correctable, and possibilities are unlimited.

The fourth area of development is in the cognitive sciences. For our purposes, it means the applications of artificial intelligence to computer technology. With conventional computer programs such as word processors or spread sheets or online searching or even CD-ROMs, the computer is basically a tool -- highly skilled one, to be sure, that manipulates the information in all sorts of ways, but ways that we tell it to. But computer technology can also permit us to create intelligence outside the human mind. The computer can take the information it has stored, manipulate it, and process it for various purposes. "Artificial intelligence," to quote from the recently published Oxford Companion to the Mind, "is the science of making machines do the sorts of things that are done by human minds" (Boden, 1987).

A few years ago, skeptics were saying no computer program could beat a skilled chess player. But only a few weeks ago, scientists had developed a program that could play the greatest players to a draw. Will machines be able to do everything that human minds can do? Think? In a sense, yes. Create? Perhaps. Speculate, imagine, dream? Some say perhaps, but they are in a small minority. What computers can do -- now, by applying today's concepts and techniques, is "to provide advice, to make judgments, and to aid in the solution of complex problems in limited subject areas requiring the use of specialized knowledge and expertise." That is a brief definition of expert systems.

An expert system enables a computer to apply rules of reasoning to a base of knowledge, permitting the computer to come to the same conclusion a human expert would. There are many expert systems already at work -- in medicine, and especially in business and industry. So far, only very elementary ones in libraries, as far as I know. But, with the continuing developments in BI, and with improvements in "user interface" -- more and more permitting you and me to talk with machines with our own language -- with continuing developments in those areas, the potential of computer-based assistance and instruction is almost limitless. The next generation of computers -- the Fifth Generation -- will not even require the user to be very specific about his needs, because they will have reasoning power, and will be able to tease out from the user, by questioning and suggestions, just exactly what it is the user want to do or know.

All right, we have these marvelous developments in
technology, in these various areas -- computers, telecommunications, storage technology, and artificial intelligence, or expert systems. What is the impact on libraries, and in particular, on the student? Let's assume that academic life continues pretty much as it is -- semesters, hour-long classes, lectures, exams, term papers, etc. That's probably not unreasonable -- not for the next decade, anyway -- since the wheels of higher education turn very slowly, and changes in curriculum, in teaching styles and class formats -- if they come at all -- are very gradual, much behind events and developments outside academe.

What will have changed on campus, though, is the library's ability to provide information. Almost literally, students will have access to any information -- in print or electronic form -- practically instantaneously. Libraries will provide information on site -- mostly in electronic form -- but will provide access to much more information elsewhere (Penniman, 1988).

We have, then, this possibility: students who may be faced with a dilemma: either they use a very superficial approach to searching for information -- an approach on the level of the Reader's Guide, or, Infotrac -- that is, access to information that is quick and easy to get -- or, by making use of the new information technology, they'll be overwhelmed by material the student doesn't have time to read, nor the expertise to cull it or evaluate it and absorb it.

In a sense, that's not much different from what we have now. At one end of the spectrum we now have students who either don't like libraries or don't know how to use them -- in both cases, they stay away from libraries -- and at the other end of the spectrum we have students who want to use libraries, know enough how to get materials -- lots of materials -- but who exhibit little sense of discrimination -- who don't understand that all books and articles are not of equal worth -- who don't know how to evaluate sources of information. Today, we spend most of our efforts with the lower end of the spectrum, those students who really don't know how to find information.

Increasingly, that kind of instruction will be taken over by machines. Students won't have any trouble learning how to find information, or learning how to use even the most complex library tools. All that will be built in. Artificial intelligence, expert systems, hypertext could do a better job of that than we can today. Remember, the computer has infinite patience, doesn't take coffee breaks, can be very versatile in its responses and can adapt to individual needs and requests -- and requests not just
typed out, but spoken (speech, after all, can also be transposed into binary units) (Arms et al., 1988).

If we won't be teaching what and how we do now, what will we do? That is, will there still be a job for BI -- even for reference librarians? The October issue of C & R L News contains the proceedings of a panel discussion on "The Future of Reference Service" (Future, 1988). It is a very interesting, even provocative discussion, with many questions raised and a number of new directions suggested. There was, however, no resolution -- and I guess I would have been surprised if there was. Reference service means such different things in different situations. I don't think there's much doubt, however, that reference librarians will be offering much more specialized reference assistance. Basic reference will be taken care of by computers, but the role of the reference librarian as teacher will be ever more important. Only the one-to-one relationship between student and librarian permits the subtleties of searching for information and evaluating sources. The conceptual nature of those topics demands discussion and questions, interactions that can only be carried on usefully, instructively, in a teacher/student relationship -- in this case, a reference librarian/library user relationship.

Or, describing it another way, specialized knowledge may increasingly be accessible through machines, while human librarians are trained to be generalists in the best sense, able to integrate different points of views.

In Library Hi Tech, last year, two scientists speculated that "librarian-knowledge workers" will personalize information and provide knowledge in the context of the recipients interests. The librarian will have to be a specialist in devising expert systems for individual needs (Murr & Williams, 1987).

Fred Kilgour, founder of OCLC, suggests that librarians will know what the information needs of individuals are, and could make available information that those individuals didn't even know they needed! Putting it in an academic setting, we would have individual students as clients, and would be aware of their information needs, just as we do now with some faculty.

But what about the BI librarian? As I said, the main occupation of today's BI librarians -- teaching users how to find information -- will be taken over by technology. And the other function -- helping users shape their searches, showing them how to evaluate information, will increasingly become the librarian's role. We will not be teaching classes -- machines will do that better -- they can do it in a less structured, more individualized
way. But we will be supplementing that machine teaching. The art of creating expert systems now has real limitations. As one authority says: "Applications that have been successful have all tended to involve problem domains that are narrow, discrete, homogeneous, and with a limited number of entities and relations." Much of reference work fits that, but much of it doesn't and it's the latter kind of reference work we'll be doing more of. One writer has suggested it means going back to the role of "reader's advisor." That's not a bad label -- better than "information expert" as another writer suggests, but the idea is very much the same.

But it seems to me there's another reason for working hard at what we're doing now. The application of artificial intelligence concepts -- the use of expert systems -- remember, is one of the keys to the new technology. But the basis of expert systems is, of course, expert advice. That is, the way in which an expert responds to a query or solves a problem, or performs an operation is translated into a program for a computer.

So an expert system is no better than the advice of the experts it is based upon. If, then, we expect those machines to do really expert jobs, we need to keep improving our methods, systematizing them, so that they can be translated into steps a computer can follow.

There are other reasons to keep at it. In one of the papers delivered to this group at the 1982 St. Louis meeting, Angela Weyhaupt of Barat College, made the comment that "the bottom line of BI is not merely knowledge but behavior" (Weyhaupt, 1983). That is a simple observation, but a very important one, I think. It leads me to observe that no matter how much technology changes what we do and how we do it, one thing that will stay the same is the importance of changing behavior, and the behavior I'm especially thinking of is "library anxiety."

Now, most of you have read about that syndrome, but all of you -- if you've ever worked at a reference desk or other public service point -- have seen it. It's that syndrome that was described so well by Connie Mellon in College & Research Libraries a few years ago (Mellon, 1986). That article, you may remember, told about a project in which students in freshman composition were asked to keep a journal of their initial reactions to using the library. Their responses? "Scared, bewildered, confused, anxious" and other such descriptors. I was greatly impressed by that article. I'd sensed this was the case, but having it documented, described, interpreted so well really impressed me, and helped reshape my approach to BI.
Those students were scared, anxious because they were in an unfamiliar situation -- they were, in other words, not in control. And when one is faced with an unfamiliar situation, is not in control of a situation, one is tempted to avoid it. Sure, they were students in a particular library but they were pretty typical -- not just of freshmen, but of library users anywhere. My inference from thinking about that was this: that one of the most important things we can do in BI is make students feel comfortable, feel in control. So, for example, our workbook for freshmen is much simpler and briefer than it used to be. Sure, part of its purpose is to teach students a few things about search strategy and aspects of the library. But mostly it's to make sure they have a successful search for information, so that when, later, they come to work on their own topics, they have a certain amount of confidence. It seems to me that's especially important for the adult learner.

Now, one might argue that coming generations of students who, after all, will have grown up with computers, may not be so anxious about using online catalog, CD-ROMs, videodiscs, or whatever the new technology creates. But it seems to me that much of the searching for information, information which after all, is going to expand as fast as -- or faster than -- the devices that provide access to it, can never be simple and straightforward. I'm not talking about facts, but information, which may entail opinion, perspectives, evaluations. That kind of search has no automatic logic, no necessary closure. There will always be the need to frame questions, to shape a topic, to interact. There will always be a certain amount of anxiety, of dealing with the unfamiliar.

Moreover, there's going to be an increasing need for socializing, for personal contact. As computers become an increasingly standard aspect of our working lives, we'll seek ways of finding personal meetings. No matter how sophisticated the new information technology, it can't completely replace that human contact.

I remember the President of Earlham College saying -- oh, about twenty years ago -- that it would be foolish to invest in the airlines. His logic made sense: a large proportion of air travel is by businessmen to attend meetings and since videoconferencing was already feasible technologically, it was just a matter of time before businessmen would meet by video rather than travel to meetings. Well, he was a marvelous college president, but in this case not much of a seer. As you've undoubtedly observed, business travel hasn't declined -- on the
contrary -- and anyone who's taken part in a teleconference or videoconference knows how unsatisfying it is. My point is this: there is no substitute for personal, face-to-face interaction, and in reference or readers' advisor positions, with sources and types of information becoming increasingly numerous and complex, that interaction will continue to be essential, perhaps even more so than now.

One of my colleagues, who teaches English at Earlham College, spoke to the ACRL Conference in Minneapolis some years ago. His talk was titled "Views of a Luddite", but it was not so much a skeptical look at library technology as a humanist's view of the role of the library in an academic setting (Lacey, 1982).

"I am not conceiving of the library as an information retrieval system, but as a social system, a teaching-learning milieu in which retrieval of information is only part of the goal. The library is not merely a place or a collection of functions, but a living symbol of valuable and rich human resources." Similarly, I make a cast for the BI librarian as efficient and knowledgeable. Even as user-friendly as the new information technology will get, those incredible devices cannot provide the eye contact, the personal reassurance, the friendly advice, the encouraging words that students will always need. Our tools will change much of what we do with change, but some of that human personal factor will always be important.
References


A Comprehensive Approach to Community Information Services

Jane Ferguson and Jordy Johnson
University of South Carolina

Sumter, South Carolina is a city of approximately 28,000 residents in east central South Carolina. The USC Sumter, Sumter TECH and Sumter County libraries have formed a consortium to serve Sumter and its three contiguous counties, Lee, Clarendon and Kershaw. The consortium, Consolidated Library Automation Services System, will hereinafter be referred to as CLASS. The total population for the four county service area is 173,651. The information needs of our area are diverse. Sumter County is the site of Shaw Air Force Base, a growing industrial park, and a large agricultural population.

By coordinating efforts and sharing resources, the libraries have worked cooperatively to provide maximum service to the educational institutions and the public with a minimum of duplication. The CLASS libraries are within a short driving distance of each other. The Sumter County Library is less than two miles from the USC Sumter campus, and Sumter TECH is next door to USC Sumter. The close proximity of the CLASS libraries makes the sharing of resources not only feasible, but practical. Efforts to coordinate services in a way to best benefit the users and eliminate unnecessary duplication of resources resulted in the formation of the CLASS consortium. CLASS is designed to provide a total community resource while preserving the special purpose and autonomy of each member library. The areas of staffing and budget remain separate within each institution and its governing body.

To insure success in serving our users the CLASS libraries outlined a plan for cooperation. We then met to develop a formal agreement, by-laws, and governance structure. (See Appendix A for agreement). We reviewed a number of documents from other consortia and found them to be most helpful. This process, although time consuming and difficult, was rewarding since all of us were working for the common purpose of serving our users. Currently, several other libraries are reviewing the CLASS agreement, and we anticipate them joining the consortium.

The CLASS libraries' task is clearly and simply to serve institutions and users to the fullest possible extent. All of our library functions should be viewed as facilitating the transfer of information for teaching and learning. Keeping this philosophy in
mind we began to discuss our priorities. We first reviewed reference and information services because of the importance to our users. Our services vary with the type of library; with the user the institution is designed to serve; with the skill, competence, and professional training of the staff; and with the resources available. These services may range from answering an apparently simple query to supplying information based on a bibliographical search, and often combine the library specialist's competence in information-handling techniques with competence in the subject of inquiry. The goal of our services is to provide information. The operative word is always service. We are in the midst of an age where information overload is the rule, and the efficient and effective access to pertinent information is the challenge. With these ideas in mind we began to evaluate each library's reader services, reference resources, and public services staff.

The librarians decided to conduct an informal survey which involved as many of our users as possible. We formed a committee made up of faculty members from the educational institutions, library staff members, and community members. This committee was instrumental in helping us develop our plans for automation and also served as a "think tank" for ways of improving services. In addition to working with the committee we met with key individuals from many segments of our community and asked them what their informational needs were. We also let them know what services and resources were already available and how the consortium would improve access to materials and services. This was probably the most time consuming aspect involved in developing consortium plans; however, it was also one of the most rewarding. The enthusiasm and support of the individuals that we met with was tremendous. They gave us excellent ideas and suggestions in specific areas and they also wanted to know how they could help. The involvement of our users confirmed many of the suggestions that we already had, but it also brought out ideas that we had not considered. The support of our users renewed the excitement that we had for CLASS and their continued participation in the planning process helps to insure our success.

Continued coordinated collection development was another consideration; however, since this had been going on for some time our duplication rate was already low. Currently, CLASS libraries coordinate collection development by joint review of proposed acquisitions. For example, we have been purchasing automated reference resources on laser disc, and we have carefully coordinated these purchases so that some of these items are available at each library.
We also decided to publish joint bibliographies, handbooks, library handouts, policy and procedures manuals, and news releases. Publishing materials together has worked very well for us. Each library takes the lead on certain items and assumes responsibility for preparing the draft document and making it available for the other libraries to review. Since all libraries share in the work no one library is burdened with it all. We decided on who would work on which publications by looking at individual areas of interest, time available, and staff availability. To this point we have had excellent results with this aspect of cooperation and we feel that combining our resources has made our work easier, and the patrons love it!

Sharing collections of materials to benefit users is another area in which we have had good results. USC Sumter, for example, offers several courses in children's literature but we have only a few children's books. The Sumter County Library, on the other hand, has an excellent children's collection which they made available for our students. Some of their materials were placed on reserve in the USC Sumter Library and some materials remained at the County Library. The important point is that our students had easy access to those materials, and the USC Library did not have to purchase a large collection of children's books to support one or two children's literature courses.

Together, our libraries have provided special collections of materials for use by individuals in business and industry, medicine, and public education. During this last school year CLASS Libraries worked with sixth, seventh, and eighth grade challenge students to provide resources for their projects. We developed collections of materials for their use in our libraries as well as in their school library. Additionally, we provided a number of instructional sessions for these students in our libraries on developing search strategies, utilizing specialized library resources, and accessing information via the computer. As part of this same program we provided a day of in-service training for teachers of challenge students. Combined user orientation programs for other individuals and groups are also scheduled on a regular basis. Our instruction is done not only at the libraries but often at the public schools or other sites.

Two members of CLASS, USC Sumter and the Sumter County Library are working on a cooperative automation project in order to improve and expand services. A Title II-D grant proposal was recently submitted and requests for funding are also being sent to other grant sources. A decrease in state funding and an increase in student and institutional population called for such a cooperative effort.
Through library automation, the two CLASS libraries seek to improve services to the functionally illiterate, handicapped, disadvantaged, and large rural population. Also automation provides potential to support the critical needs of the public school libraries, and we can provide services to enhance the efforts of retraining for jobs to attract industry.

The application of computer technology to CLASS library services goes beyond automated catalogs, circulation systems, and reporting systems. It includes information utilities, state wide networks, software circulation, library computer labs for instructional delivery, electronic mail and bulletin boards, and a host of other hardware and software applications. The needs of our users and the changing library technology make it imperative for CLASS Libraries to continue to cooperate and coordinate the development and utilization of computers for the best delivery of our library services.

In an effort to deal with the escalating costs of new materials and the information explosion, libraries are turning more and more to cooperation and resource sharing. To this end, Sumter County Library and USC Sumter have devised a plan to automate and network services which would provide a CD-ROM union catalog and computerized circulation system for their users. The objectives of the project are:

1. To meet the needs of the community users of the two participating libraries through the automation of library records using CD-ROM technology to create a consolidated holdings record of the two libraries.
2. To coordinate acquisition of materials by the two libraries in order to reduce duplication.
3. To improve reference services to all library users with special emphasis on reference services to military, handicapped, disadvantaged, mature students, and rural populations through the use of portable systems in addition to the in-house systems.
4. To promote the two libraries as a single source of information available to the community.
5. To reduce substantially the high costs associated with maintaining two separate card catalog systems.
6. To reduce staff needs in the technical services area in order to provide more staff assistance in user services.
7. To network CLASS Libraries via computer in order to quickly transmit data between libraries.
8. To provide better institutional support for job retraining efforts.
The libraries have been very concerned about the cost of a total on-line system and have investigated less expensive but acceptable alternatives. We have agreed that at this point CDROM technology is a viable alternative to a total on-line system. CD-ROM is a new technology that utilizes a laser light beam to place information on a disc. Approximately 600,000 unique catalog records can be placed on a small 4 3/4" disc. A laser reader is connected to a standard IBM microcomputer which can search the disc and find a single record in seconds. It has been predicted that this system of information retrieval and storage may prove to be as significant as Gutenberg's technology for producing and storing information.

Compared to a total on-line system, CD-ROM is much less expensive to develop with ongoing costs amounting to a fraction of what they would be with an on-line system. CD-ROM will provide the library user with quick and easy access to the holdings records of both libraries and can easily be administered by the libraries themselves with a minimum of vendor support. Hardware and networking will be the responsibility of the Director of Computer Services at USC Sumter with no additional personnel required to support the system.

The automation project will allow other area libraries to join the consortium and load their records into the CLASS database. Area libraries include Shaw Air Force Base, Morris College, Public School Districts 17 and 2, Tuomey Hospital, Williams Brice Archives, and Sumter Area Technical College (already a member of CLASS). Although Shaw Air Force Base Library will not load its records in the initial phase of the project, USC Sumter plans to place one of its units at the Shaw Air Force Base Library in order to meet the needs of its large on-base student population. Another USC Sumter unit will be available for off-site use by its students and other users. The Sumter County Library bookmobile will be the primary mode of transport for this unit. Since Sumter TECH is next door to USC Sumter, a unit will not be placed in the TECH Library initially.

The total grant request is for $135,680.00. In-kind contributions by CLASS Libraries will total $76,640.00. This will bring the total cost of the project for the one-year grant period to $212,320.00.

Monies in excess of $19,000.00 have already been spent by USC Sumter and Sumter County Libraries to begin the conversion of their records to machine readable format. Both libraries have committed to funding the project to completion. Upon completion
of the project, both libraries will continue to update and enhance the system developed during the grant period.

CLASS libraries are expanding efforts to advertise services and resources to the community at large and to specific groups such as the business, public education and medical communities. CLASS libraries has published a comprehensive bibliography of business resources which include books, journals, on-line databases and other informational sources. Business leaders from the community are being invited to tour the library facilities and to gain hands-on experience in using laser discs and on-line databases. The response from the community has been excellent, with the public schools, the hospital, industry and even the local historical society, Tech and Shaw AFB wanting to have access to the 150,000 items which two of the CLASS libraries plan to load on laser disc. In fact, most have expressed interest in adding their holdings to the database and becoming a part of CLASS.

Along with the automation project begun by the two CLASS libraries we are also beginning a joint review of facilities. Additional space is needed by both libraries, but funding to meet all building needs is not going to be available in the near future.

With all the changes CLASS will be implementing we must insure that we are appropriately serving our users. Effectively meeting the diverse needs of our users with rapid and accurate information services is our highest priority. Currently, much of our emphasis is on surveying the needs of our users and using the resulting information to improve CLASS services and resources. The Fall 1987 BADM 376 upper level business classes at USC Sumter recently conducted an initial survey regarding USC Sumter library services and resources. The survey was a prototype for future research projects. It was designed to measure student usage of library services and to measure user satisfaction in the areas of holdings, service, and technology of the USC Sumter Library.

A survey of CLASS Users is planned for Fall 1988. The survey will follow the same procedures and format as described in the USC-Sumter Library Survey. In the USC-Sumter research, 266 students were surveyed out of an approximate population of 1700 students. The information regarding the 266 students surveyed is as follows:
Employment:

- 49% full-time
- 30% part-time
- 21% non-employed

Student Status:

- 62% full-time
- 38% part-time

Marital Status:

- 116 Married
- 149 Single

Sex:

- 134 Male
- 130 Female

Age:

- 40% 21 and under
- 27% between 22 and 26
- 33% 27 and over

Mileage from USC-S:

- Within 1 mile 8%
- Within 5 miles 30%
- Within 10 miles 29%
- Within 15 miles 15%
- More than 15 miles 17%
- No response 1%

Classes:

- 19% Freshmen
- 32% Sophomores
- 21% Juniors
- 16% Seniors
- 6% Graduate Students
- 6% Others

Majors:

- Education 11%
- Undecided & Others 21%
- BAIS 5%
- Business 47%
- Arts & Humanities 5%
- Engineering 4%
- Journalism 0%
- Science & Math 3%
- Nursing & Health 4%

The Statistical Analysis System (SAS) Program was used to analyze the data. The survey questionnaire (Appendix B) was designed to measure student satisfaction with several USC-Sumter Library areas including usage, holdings, service, and technology.

The research findings resulted in the identification of several library strengths and weaknesses and recommendations to overcome the weaknesses. By analyzing the data received, it was obvious the majority of the students were satisfied with the technology and service offered to them by the USC-Sumter Library.

Their highest level of satisfaction was found with the library staff. A very minimal number of comments suggested that the office area was too noisy for quiet study. A recommendation to alleviate this problem would be the use of partitions, either glass or cloth, to separate this area from the main library.
The most frequent negative input and comments concerned the operating hours of the library. The following suggestions are the direct result of the user comments.

1. Weekdays -- Monday through Friday the library should remain open until 11:00 p.m.
2. Weekends -- Extend the current hours on Saturdays longer into the evenings (until approximately between 6:00 and 8:00 p.m.) and open earlier on Sundays.
3. Summer hours -- Extend the evening hours until 11:00 p.m. Monday through Thursday.

The recommendation to expand library operating hours is further supported by the responses to the question, "what restricts your use of the library?" When asked what restricted library use, 45% of students surveyed indicated their job was a restriction; 28% said their class schedule was a restriction; and 21% said library operating hours were a restriction. If library operating hours were expanded, particularly on Friday and Saturday afternoons and Sunday mornings, then class schedule and job would probably be less of a restriction on library use. Only 5% of students surveyed indicated that services by the library restricted their use.

A general concern in the survey was voiced about the copier machine and its poor quality of copies. We recommended a new copier be obtained for student use.

After reviewing the comments received concerning the typewriters, we recommended a joint program between the library and computer center. The technology available in the computer center can replace the obsolete typewriters. This "cross-development" between the library and computer center would be a benefit to the student. If a few personal computers could be brought into the library, the students would have two accesses to computer technology.

Our data also indicate there is a general lack of student awareness in several technical areas. Dialog emerged as being the least known service offered by the USC-Sumter Library with 139 of 266 students responding "not familiar". Other services that appear to have an awareness problem are: the typewriters with 137 "not familiar" responses, the orientation program with 128 "not familiar" responses, interlibrary loans with 127 "not familiar" responses and finally the audio-visual rooms with 119 "not familiar" responses. We feel that the lack of knowledge about these areas stems from an inadequate library orientation program.
We recommend that the library orientation program be revised, to include these items, and publicized. We also recommend that a requirement be established for incoming students and freshmen to attend the library orientation and for existing upper division students to be introduced to dialog.

The library orientation program is being revised to include specific services offered by the library. Also, students are now required to participate in library orientation programs. These programs are worked into introductory survey courses. A program for faculty orientation has been implemented to provide an opportunity for input into the services needed and selection of materials to compliment courses. (See Appendix C).

The student findings based on their survey data confirmed our suspicions that users in general really do not know what we have to offer. Our current and future challenge will be to effectively communicate to users and non-users what a tremendous resource we have in CLASS. We will know more about how well we have met the challenge when our survey of CLASS users and potential users is completed in the fall of 1988. The procedures and format will be basically the same as those used in the USC Sumter Library Study. As a formal consortium we have made excellent progress but we must continue to work together in order to have a successful cooperative program.

Our plans for the future include the development of a comprehensive program of user instruction, utilization of various community media resources to inform people of what is available, communication with other consortia, development of a local users' group to address computer applications in libraries, examination of new library technologies and resulting physical problems, and workshops for specialized users. Most importantly, our plans focus on our users. Their support and suggestions are crucial to the success of CLASS. They are our most valuable resource!
Appendix A

Agreement of CLASS

(Consolidated Library Automation System)

In an effort to coordinate services in a way to best benefit the users and eliminate unnecessary duplication of resources, the head librarians of USC at Sumter Library and Sumter County Library have formed a consortium known as CLASS. CLASS is designed to provide a total community resource while preserving the special purpose and autonomy of each member library. The areas of staffing and budget will remain separate within each institution and its governing body. In keeping with the above, the following conditions of cooperation are agreed upon as follows:

I. Two governing bodies have been established:
   A. Board of Directors composed of the Dean of USC Sumter, Sumter County Library Board Chair, and the President of Sumter Area TECH insure fiscal accountability, secure funding, implement CLASS policies and review additional contractors of CLASS.
   B. An Executive Committee composed of a USC-Sumter Librarian, Sumter County Librarian, Sumter Area TECH Librarian, and USC Sumter Computer Representative serves as a review board for CLASS.

II. Joint orientation programs are planned for special groups (i.e. students, business community, medical community etc.) as well as general information programs.

III. Joint publications for distribution:
   A. Bibliographies in specific subject areas to include holdings of CLASS members.
   B. A CLASS policy manual details such areas as collection development, user services, programs, publications and quality control objectives.
   C. A joint workbook for bibliographic instruction has been compiled.
   D. A joint periodicals holdings list combining resources of the two libraries will be available in September 1988.
   E. Joint information handouts and bookmarks are being printed.

IV. Collection development will remain a cooperative effort.

V. The CLASS libraries will maintain and operate a computerized
network and service center which, by means of electronic data processing and telecommunications, may increase the availability of the data and resources of the member institutions.

A. A Title II D grant application for the development and implementation of an automated system for CLASS is being submitted (for USC Sumter and the Sumter County Library). Headquarters for II D grant will be at USC Sumter with the head librarian in charge.

B. On-line database services to users at the school and the community will be provided.

C. Sumter County Library has Bibliofile which is available to all libraries for cataloging, classification and for retrospective conversion.

D. USC-S has Reader's Guide to Periodical Literature, Humanities Index, Business Periodicals Index, Compact Disclosure, ERIC, Medline, Life Sciences Collection, MLA, Social Sciences Index, Books in Print, and Books out of Print on laser disc available to all users in the Consortium.

VI. Staff members from CLASS libraries meet regularly as well as the CLASS librarians:

A. In-Service training and workshops are regularly scheduled.

B. CLASS libraries work with the local school districts to provide training programs for teachers and school libraries.

VII. To determine automation needs the CLASS librarians will continue to consult with outside sources:

A. RMG Consulting Firm

B. Library Processing Center, USC Colombia

C. USC School of Library and Information Science

D. Other outside sources as deemed necessary.

VIII. CLASS libraries will share as many forms of publicity and public relations efforts as are available and pertinent to the network:

A. An annual joint award will be given to each of three top middle school students for excellence in writing.

B. Information about upcoming programs and general library news will be submitted to the local newspaper, ETV, and specialized library publications.
C. A joint newsletter, combined periodicals list, and business resources flyers are in process.

IX. Interlibrary loan cooperation will remain extensive:

A. Users of the Sumter County Library will have access to the University of South Carolina Sumter Library, and Sumter TECH Library by presenting their Sumter County Library cards. Faculty, students, and staff of USC Sumter will have access to the Sumter County Library by showing a valid school ID.

B. All libraries have access to the state library.

C. The electronic mail system at USC Sumter Library will be able to provide quick access to all USC campuses.

D. The CLASS libraries will share in a joint audio-visual service including rotating collections and sharing equipment.

E. CLASS libraries will rotate collections and combine resources upon request to be sent to remote locations in the community.

X. CLASS members will review this "Agreement" on an annual basis.
Appendix B

LIBRARY SATISFACTION QUESTIONNAIRE

Employment: Full-time ____ Part-time ____ Not employed ____

Student status: Full-time ____ Part-time ____

Marital status: Married ____ Single ____

Age ____ Sex: M ____ F ____ Major _________________

Freshman ____ Sophomore ____ Junior ____ Senior ____ Graduate ____

Other ____

Approximately how close do you live to USC-Sumter?

_____ Within 1 mile
_____ Within 5 miles
_____ Within 10 miles
_____ Within 15 miles
_____ More than 15 miles

The Library Satisfaction Questionnaire is designed to help us identify ways we can improve our library services for you.

- Read each statement carefully.
- Decide how satisfied you feel about the aspect of the USC-Sumter Library described by the statement.
- Do this for all statements. Please answer every item.
- Be frank and honest. Give a true picture of your feelings about the USC-Sumter Library.
Appendix B (continued)

Please circle the responses to your use of the USC-Sumter Library:

- VO - very often
- O - often
- FO - fairly often
- R - rarely
- N - never

How often do you:

1. Use the library for leisure purposes? VO O FO R N
2. Use the library for individual study sessions? VO O FO R N
3. Check out books? VO O FO R N
4. Use the typewriters? VO O FO R N
5. Use the copy machine? VO O FO R N
6. Use the microfilm readers? VO O FO R N
7. Use the library research computers? VO O FO R N
8. Use the periodical room? VO O FO R N
   What do you use it for? ______________
9. Use the card catalog? VO O FO R N
10. Use the Audio Visual rooms? VO O FO R N
11. Use the library for group study sessions? VO O FO R N
12. Use the inter-library-loan system? VO O FO R N
13. How often do you use the USC-S Library? 
   _____ Less than once a month
   _____ Once a month
   _____ Twice a month
   _____ Once a week
   _____ More than once a week
Appendix B (continued)

HOLDINGS

Ask yourself: How satisfied am I with this aspect of the holdings (i.e. books, periodicals, newspapers, etc.) Circle your response.

CD: Completely Dissatisfied
SD: Somewhat Dissatisfied
N: Neither Satisfied nor Dissatisfied
S: Satisfied
VS: Very Satisfied
NF: Not Familiar or Don’t Know

As a student of USC-Sumter, this is how I feel about the holdings in...

<table>
<thead>
<tr>
<th></th>
<th>Reference Material (Readers Guide, Encyclopedia, etc.)</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>SV</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Periodicals/Journals (Newsweek, Time, Harvard Business Review)</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>S</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Newspapers</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>S</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Business</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>S</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Finance</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>S</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Economics</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>S</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Geography</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>S</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Psychology</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>S</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Sociology</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>S</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Natural Sciences</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>S</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Audio/Video Materials</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>S</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>History</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>S</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>English/Literature (fiction, poetry, non-fiction)</th>
<th>CD</th>
<th>SD</th>
<th>N</th>
<th>S</th>
<th>VS</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix E (continued)

How satisfied are you with the library's policy to:

14. Keep all of its periodicals and newspapers up to date?  CD SD N S VS NF

15. Keep its encyclopedias current with year books?  CD SD N S VS NF

16. Keep an ample supply of microfilm of newspapers and periodicals in which to do research for papers?  CD SD N S VS NF

SERVICE & TECHNOLOGY

How satisfied are you with the following library services? Circle your response.

1) Hours of Operation CD SD N S VS NF

2) Reference Material CD SD N S VS NF

3) Interlibrary Loans CD SD N S VS NF

4) Dialog CD SD N S VS NF

5) Audio-Visual Rooms CD SD N S VS NF

6) Typewriters CD SD N S VS NF

7) Microfilm Services CD SD N S VS NF

8) Copy Machine CD SD N S VS NF

9) The Orientation Program CD SD N S VS NF

10) If you answered dissatisfied or very dissatisfied to any of the above questions please indicate your reason below.

11) The knowledge of the library staff when answering your questions? CD SD N S VS NF
Appendix B (continued)

12) The willingness of the library staff to assist you?  CD SD N S VS NF

13) The promptness of the staff at meeting your library needs?  CD SD N S VS NF

14) The courtesy shown you by the library staff?  CD SD N S VS NF

15) Are there any services not provided by the USC-Sumter library that you would like to see offered?  __________________________

Indicate satisfaction with:

16) Library hours on weekdays  CD SD N S VS NF

17) Library hours on weekends  CD SD N S VS NF

18) Summer library hours  CD SD N S VS NF

19) List any additional hours you would like to see the library open:  __________________________

20) Have you attended a library orientation session?  Yes____ No____; I didn't know about an orientation  ______

21) What restricts your use of the library? Check as many as apply.

______ My use of the library is not restricted
______ Operating hours
______ Class schedule
______ Services it provides
______ My job
______ Other
Appendix C
LIBRARY ORIENTATION FOR FACULTY

Handouts -
  Services, Rules and Hours.
  Bibliography for their discipline.
  Student Handbook
  CD-ROM Descriptions

Groups -
  Faculty - By discipline.

Time - 1 to 1 1/2 hours

Objectives -
  1. Acquaint faculty and staff with new sources especially CD-ROM 1.
  2. Bring faculty in that do not personally use the library or assign students to use the library and introduce them to our services and resources.
  3. Obtain feedback from participants on what their needs are and problems they have encountered. (Compile Questionnaire).

Things to be Covered -
  1. Library Rules and Regulations.
  2. Circulation Procedures.
  3. Hours of Operation.
  4. Services-
     a. ILL
     b. CD-ROM Wilson Discs and Online (emphasize those sources relevant to their discipline).
     c. DIALOG
     d. Cooperative Agreement
     e. Equipment

Particular Reference Sources -
  1. CD-ROM
  2. DIALOG
  3. Periodicals Holdings List
  4. General Collection

Conclusion -
  1. Question and answer period.
  2. Tour of the library.
  3. Sign-up for more detailed instruction if desired.
  4. Hands-on use of CD-ROM.
Appendix C (continued)

ORIENTATION TO THE LIBRARY

A. Library Hours
   Monday - Thursday 7:45 a.m. to 9:00 p.m.
   Friday 7:45 a.m. to 5:00 p.m.
   Saturday 9:00 a.m. to 1:00 p.m.
   Sunday 2:00 p.m. to 6:00 p.m.

Days of closings during holidays and semester breaks will be posted. Hours are shortened during breaks, holidays and summer months.

B. Contact Persons in the Library

   Jane Ferguson...Head Librarian.......Acquisitions...3234
   Bibliographies
   DIALOG Searches

   Susan Towery....Asst. Librarian.......Periodicals...3297
   Interlibrary Loans

   Susan James....Tech. Assist............Acquisitions...3295
   Book Orders

   Pat Schultz....Tech. Assist............Circulations...3236
   Reference
   AV Equipment

   Cindy Macias...Tech. Assist............Weekends.....3236
   Reference
   Circulation

C. User Privileges
   1. Check-out and return of materials.
      Faculty and staff have unlimited check-out.
      Books will be recalled when others need them.
   2. Most faculty members will be recognized by the
      library staff but a validated I.D. should be brought
      with you in case it is requested.
   3. Faculty members are expected to pay the cost plus a
      $5.00 processing fee for lost books.
   4. A hold can be placed on needed books that are checked
      out.
   5. Reference books can be checked-out for a limited
      time.
   6. A request for interlibrary loans can be made at the
      Circulation Desk. A request form should be filled
out for each book or article. There is a minimum
waiting period of 1 week for materials and longer for
materials received from outside the USC system.

USC-Sumter has a reciprocal borrowing agreement with the Sumter
county, and Sumter TEC Libraries. A validated I.D. is needed in
order to check out materials from these libraries.

Acquisitions -
1. Orders for books must be approved by your Division Head.
2. Requests for books can be turned into Susan James or Jane
   Ferguson.
3. Requests for Bibliographies should be submitted to Mrs.
   Jane Ferguson. __________________________ should be allowed
   for completion.

Requests for Library Orientations for your classes should be
submitted to Jane Ferguson.

Requests for DIALOG searches should be submitted to Jane Ferguson.
Don't Plan Around it. Plan for it!

A Canadian Approach To Solving

Some Off-campus Library Service Problems

Yuen-ching Sin Fu

Mount Royal College

Mount Royal College is situated in the foothills of the
Canadian Rocky Mountains in the host city of the 1988 Olympic
Winter Games, Calgary. The city is the home of many oil and gas
headquarters. Some people consider Calgary an equivalent to
Houston in Texas.

Mount Royal College was established in 1911 under the
sponsorship of the Methodist Church. In 1966, it became a public
institution operating under The Colleges Act and The Department of
Advanced Education Act of the Province of Alberta.

The College is a non-denominational, co-educational,
publicly funded, two-year community college. Being the largest
college in the province of Alberta, it offers a wide variety of
programs and classes including:

- Comprehensive first and second year university transfer Arts
  and Science courses;

- One or two year career credit programs, for instance,
  Nursing, Business Administration, Geology and Mineral
  Resource Land Management;

- Conservatory of Music and Speech Arts classes;

- Vocational and training programs for developmentally
disabled adults;

- Credit-free continuing education courses ranging from
  fashion merchandizing to accounting and computer courses;

- High school matriculation equivalent courses;

- College preparatory courses.

In 1987/88, Mount Royal college had a student population of
5,500 full-time equivalent credit students. This translates to
44,271 course registrations of which 250 were distance education. In addition, it had 20,000 credit-free and 9,000 Conservatory of Music course registrations.

The College employs 195 full-time and over 200 sessional part-time instructors, a total of 305 full-time equivalent faculty members. In addition, there are about 500 credit-free continuing education instructors. At present, the College has two campuses, the main one in South West Calgary and another in downtown Calgary.

The Learning Resources Center at the College is composed of a main library and three discipline-based branch libraries called "Resource Islands." The collection consists of 114,000 monographs, 1071 journal titles, 11,500 audiovisual materials and 147,000 microform materials. The 1987/88 acquisition budget was $346,500. Unlike those of some American colleges and universities, the library budget is not a set percentage of the total college budget--nor is it accounted for in the student tuition or activity fees. Thus, the annual library acquisition and casual staff budgets differ from one year to another according to the decision of the College administrators.

The concept of "Resource Island" is unique to North America. It houses high demand library as well as department-owned, subject-related print and non-print materials. A full complement of audiovisual equipment, including computer terminals and printers, is available for student use in the individual carrels. Two of the Resource Islands also have an attached 40 seat audiovisual classroom which is furnished with a projection television, three formats of video players, an overhead projector, a 16mm film projector and a slide projector. There is one Resource Island in each of the faculty block: Arts, Community and Health Studies, and Business, Science and Technology. The staff members are trained library technicians who offer circulation, information reference and media services to faculty and students in the respective faculty.

Resource Islands provide reserve services and thus are able to provide an effective off-campus library service. Required reading materials are placed on the Resource Islands. Distance students call the Islands collect. If the materials requested are in the Island collection, they are sent out immediately to students. If other library services, such as requests for research information and/or materials, audiovisual materials or circulation information, calls will be transferred to the appropriate library department.
Distance Education at Mount Royal College

According to the latest survey by Statistics Canada, one out of every five Canadians aged 17 and over registered for adult education courses in 1983. The highest number of adult students resided in Alberta (25% of the total adult student population). This figure would be higher if full-time adult students were included (Statistics Canada, 1985, p.4). Job-related courses were the most popular among adult learners (41%). Personal development (23%) and hobby type courses (20%) were the next most popular. Only 12% of the courses were taken for credit toward a diploma, certificate or degree (Statistics Canada, 1985, p.21). While employers are the major providers of adult education courses (18%), community colleges provide the second highest number of adult education courses (17%) (Statistics Canada, 1985, p.36).

Adult learners, especially those living in more remote areas, are attracted to distance education programs. This is particularly true for those adults whose job and/or family obligations prevent them from traveling to another location to pursue their studies. The flexibility offered by distance education, which does not require the physical presence of the students at a campus, provides an alternative to continuing education.

Also, since the drop in oil prices in 1982, educational institutions in Alberta have experienced some drastic budget cuts. They have been asked to do more with less. The Department of Advanced Education of the Province of Alberta has been looking at reducing program duplication by giving only one of the colleges or universities the mandate to offer a certain program to the whole province. For instance, Mount Royal College is the only post-secondary educational institute in Alberta to offer the Post-Basic Mental Health Nursing Program and the Gerontology Program. This effort by the provincial government to reduce program duplication together with the increasing number of adult learners contributes to the increasing popularity of distance education courses.

In response to this growing need for more flexible modes of instructional delivery, Mount Royal College has developed several programs in a variety of distance delivery methods.

**Correspondence:** This traditional distance education mode is mostly print-based, sometimes supplemented by audiovisual materials.

**Off-campus Face-to-face Instruction:** Instructors travel to off-campus sites and teach either a condensed course in a short
period of time or a regular course at regular intervals.

Telecourse: Twice a week, students view a video program being broadcast on their local cable television channel and complete the corresponding assignments.

Multi-modal: This may include a combination of any of the above plus teleconferencing, telephone conferencing, practicum/field work and computer managed learning.

Off-campus Library Services at Mount Royal College

Although distance education courses have been offered for a number of years, most of them have been offered with little or no consideration of library support services. Some instructors plan their courses so that their students do not need to use any library resources. They adopt the traditional correspondence method of including all the required reading in the course packages.

In order to get around the problem of access to library resources, they restrict assignments to exclude research papers. In other words, these instructors plan around the problem instead of planning for it. Consequently, the distance students are not given the same learning opportunity as on-campus students.

An important implication of the aforementioned on distance student learning is that these students never learn of the vast resources available to them in libraries or learn how to use the library properly. Thus they miss out on the great life-long learning opportunity that libraries, as centers of information, provide. This is only one of the many roadblocks in the course of offering off-campus library services.

In 1980, the Alberta Advanced Education and Manpower Department gave Mount Royal college the mandate to offer province wide the Post-Basic Mental Health Certificate Program to Registered Nurses who wish to develop skills and expertise in mental health nursing. After one year of offering it in the traditional face-to-face instructional mode, the Program Co-ordinator recognized two problems:

1. The traditional full-time program delivery mode was not appropriate for RNs who are adult learners with family responsibilities and full-time jobs.

2. The traditional face-to-face classroom instruction is
not feasible to RNs who live outside Calgary.

In 1983, in order to meet the needs of the distance adult students, the Post-Basic Mental Health Program was redesigned. A multi-modal course delivery model was adopted to provide a more flexible and comprehensive distance education learning experience.

In my role as Subject Librarian for the Nursing Department, I have always maintained a very close working relationship with the Department. I attended the Nursing full-faculty meetings and provide an update of the acquisition budget for Nursing library materials. I bring to the faculty's attention any changes in library policies or procedures and any library-related problems. I also inform individual instructors of any new publications and audiovisual materials and solicit requests from them regarding purchases of new library acquisitions.

Because of this well established relationship and the foresight of the Department Chairman and the Program Co-ordinator, I was invited to join the Post-Basic Mental Health Project Development Team in 1983. (The Team was responsible for the redesigning and implementation of the distance delivery mode for the Program.) As a result of having library representation on the Team, the Post-Basic Mental Health Program became the first distance education program at Mount Royal College to have the most established and fully integrated use of off-campus library services. It has since been joined by the Gerontology Program.

As a member of the Team, I had first hand information on problems encountered by instructors who were in the process of redesigning their courses to meet the distance delivery mode and discovered that the lack of library instruction to the distance education students was a serious concern.

Problems and Some Solutions to Off-campus Library Services

Library Instruction

Prior to the redesigning of the Post-Basic Mental Health Program, I offered library instruction to these Nursing students in the traditional face-to-face classroom setting at the beginning of the semester. After redesigning the Program, it was no longer feasible to offer library instruction in the same way. As a result of both my interest and technical background, I applied and received an Innovative Development Committee Grant from Mount Royal College to provide library instruction to distance learners. This resulted in an 18-minute video program on library research
entitled *The Academic Edge: Learning How to Use Your Library* (Fu, Y. & Lemky, D., 1987). Through dramatization, a librarian explains to a nervous adult student the steps of doing research, the different formats of catalogs found in both academic and public libraries, the two basic library classification systems, the different fields of a catalog card and a journal entry, and the importance of note-taking and compiling references and bibliographies. Other library services such as interlibrary loan and computerized literature search are also mentioned. Students enrolled in the Post-Basic Mental Health Program are required to view this video program.

The video program is the first of its kind because of its generic nature. Moreover, unlike most library instruction audiovisual programs on the market, it is geared to adult students. It also includes both Canadian and American reference tools.

Since its introduction in March 1987, it has generated very positive responses from students, instructors and librarians from both inside and outside the college. One student, after viewing the program, made the following comment, "Every new student should have to see this as part of orientation. If I have [sic.], it would have saved me a great deal of time..." Another viewer commented, "Extremely all-inclusive introduction to the Library. Feel it would be most useful..."

The program is now being distributed all over the world by a major Canadian film distributor and its American associate. Although promotion of the program has not been launched yet, more than thirty schools, colleges, technical institutes, universities, public and hospital libraries have expressed interest in the program. This is one example of how a problem created by the distance delivery mode was resolved innovatively and creatively without compromising the quality of distance education.

Outreach

In addition to the video program which serves as a marketing tool for off-campus library service, another attempt was made to publicize the off-campus library services to instructors as well as students. An *Off-campus Library Services booklet* (n.d.) was compiled which outlines clearly all the services which are available to the distance students. It explains how simple and easy it is to obtain reference information and research materials from the College Learning Resources Center.
The packaging of the information regarding library services was an important consideration. Most Canadian universities adopt a one or two 8 1/2 x 11 inch printed sheet format to advertise their off-campus library services. Although printing costs were higher, I chose a 3 1/2 x 8 1/2 inch booklet format with an attractive and colorful cover. I soon found out that it paid off, not just with the distance students, but also with those instructors who were not accustomed to considering the use of library materials as part of the course design.

After seeing the concise and attractive booklet, all the program co-ordinators involved in distance education requested that a copy be sent to their distance students. In addition to the booklet, a library pathfinder, a computer literature search booklet on the appropriate subject area, a card describing the library instruction video program The Academic Edge, and an audiovisual booking form are also included in the package to the distance students.

The library is now taking a proactive step to reach its distance students as well as the instructors. When instructors realize that it is relatively easy for their students to learn how to use the library, to obtain library information, print and non-print materials, they are more willing to incorporate the use of library resources in their distance education courses. In turn, once the students become aware of the vast resources available literally at their fingertips, they begin to utilize the services to a greater extent.

Course Design

Although most distance education courses are designed in a modular fashion, many of them are still in the sequential progression mode. This creates a problem for the library in circulating and developing the collection. Due to budget constraint, libraries can purchase only a limited number of multiple copies of a given title. It is impossible to have enough copies to lend to each student in a distance education course at the same time. This problem of insufficient copies is compounded by poor planning on the students' part and an inefficient Canadian postal service.

Initially, the sequential course design magnified these problems. However, through the Project Development Team meetings, some of the Post-Basic Mental Health courses were redesigned in such a way that students could select randomly the module they wish to work on. This helped to alleviate some of the pressure on the library materials. Also, students are reminded constantly, by
their instructors, by the instructional assistant, and by the library staff, to request library materials ahead of time. After two years of offering off-campus library services, the library has acquired enough added copies and the students are trained to plan early. Since then the library staff seldom has to refuse a request.

Further Challenges

In addition to problems in library instruction, outreach and course design, the following are further challenges needing to be addressed creatively by librarians:

Reference Service: Are there designated library staff dedicated to offering off-campus library services or are the duties simply an addition to the existing workload of the library staff? How much reference service is considered sufficient without overcompensating the distance problem by spoonfeeding the distance students? Who should do the selection of research materials—the library staff or the distance student?

Circulation of Library Materials: How do we handle the high cost of mailing, the slow turnaround time of postal service, and the overdue problem which is compounded by distance?

Collection Development: How do we accommodate the escalating costs of purchasing multiple copies? Not only do librarians have to consider the cost of duplicate copies, they have to be concerned with the cost of purchasing new materials when the same distance education course is taught by different instructors. The result may be a change of required texts and supplementary materials. Moreover, the format of audiovisual materials, such as Betamax versus VHS versus U-matic, has to be decided.

Copyright: How do we deal with the ethical and legal issue of copyright? Unless and until the Canadian Copyright Law is amended to allow for library exemption, it is considered illegal for libraries to photocopy journal articles and chapters of books for their distance students and for interlibrary loan. Are librarians going to continue this illegal practice? Are instructors sending out photocopied articles and chapters of books as part of the course package without obtaining copyright clearance?

Co-operation with Local Libraries: Are local libraries expected to stock library materials needed by our students who happen to be living in the area and are paying taxes to the local municipal government? Are the local libraries expected to provide services
to cater to our distance students' needs?

Essentials of Off-campus Library Services

From my experience serving the distance students at Mount Royal College, I found that the following components are indispensable to achieving success in off-campus library services:

1. Faculty and Administrative Support: With the strong support of the Nursing Department Chairman who was always mindful of including the library acquisition budget in her program proposals, I have always had sufficient money to purchase new titles and multiple copies of print and non-print materials for the distance students. The co-operation of the Nursing faculty in incorporating the use of library materials in the course requirement and the support they give to library instruction helps to make the distance courses more "wholesome," and also teaches the distance students to appreciate the wealth of information available in libraries.

2. Close Faculty Liaison: If it is important for librarians to communicate and co-operate with instructors in on-campus programs, it is even more important in distance education courses because instructors are often the only initial link librarians have with the distance students who are the ultimate clients of off-campus library services.

As a result of the close working relationship I have with the Nursing faculty, most of the logistical problems with the delivery of library materials were identified and discussed ahead of time. By confronting the problems, we were able to find solutions to each one of them. When obstacles of accessing the library collection were removed, library materials were made an integral part of the course requirement. Through this close faculty liaison the initial problem of ordering multiple copies in time were also resolved at an early stage. Moreover, it is possible to impress upon the faculty the importance of the Copyright Law. This department has been systematically requesting copyright clearance for their course package materials. (See Appendixes A and B for a list of specifics to be included in the request for copyright clearance for print and non-print materials).

3. Off-campus Library Service Policy: A policy stating the goals and objectives of the services helps to justify requests for the off-campus library budget. It also resolves some of the problems created by distance education such as the amount of
reference service to be provided.

4. The Importance of Sufficient Budgetary Support for:

a) professional and support staff

b) acquisition budget for duplicate copies of print and non-print materials
c) a toll-free telephone line or provision for collect calls
d) postage, delivery and insurance charges
e) printing and duplicating charges
f) computer search charges
g) interlibrary loan charges
h) a telephone answering machine
i) a facsimile machine
j) CD-ROM equipment and accessories
k) travel expenses to visit off-campus sites

5. Library Networking: It is crucial to establish loaning contracts or reciprocal borrowing privileges established with other local libraries so that distance students' access to research materials is maximized.

Conclusion

As instructional modes become more flexible and the number of distance education students increase, there is a greater need for librarians and instructors to confront the problems created by the distance delivery mode of education. It is important that librarians become partners with instructors, with the instructional designers, and with the administrators so that together they can help one another in resolving off-campus library service problems and enhancing the teaching/learning process. With a concerted effort, we can provide optimal preparation for our distance adult students in becoming lifelong learners.
Reference


Off-campus library services booklet. (n.d.) (Available from Yuen-Ching Sin Fu, Media Librarian, Mount Royal College, 4825 Richard Road SW, Calgary, Alberta, Canada T3E 6K6)
Appendix A

A letter requesting copyright clearance for duplication of print materials should include:

1. A brief description of the distance education program
2. An explanation of how the material will be used
3. An indication of whether the publication is for profit or non-profit
4. The title of the material
5. The number of copies to be used over a period of time (e.g. 75 copies over a period of 18 months from the date of publication of the course package.)
6. The location of use (e.g. Canada, Canada and U.S.A.)
7. The number of students using the publication
8. If any credit statement is required
9. If any fee is required
Appendix B

A letter requesting copyright clearance for duplication of non-profit materials should include:

1. A brief description of the distance education program
2. An explanation of how the material will be used
3. An indication of whether the material is for profit or non-profit
4. The title of material
5. The format already purchased or to be purchased
6. Any format change in the duplicated copies
7. The reason for the change in format
8. The number of copies to be duplicated
9. If any fee is required
Going to the Head of the Class: The Development and Implementation of an Instructional Materials Support Collection for Off-campus Faculty

Maryhelen Garrett
Central Michigan University

At the 1986 Off-campus Library Services Conference, Dr. Richard H. Potter outlined several instructional resources support activities which Central Michigan University's (CMU) Off-campus Library Services provides to its off-campus teaching faculty (Potter, 1987). This paper elaborates upon one aspect of Dr. Potter's presentation by detailing the establishment, development and marketing of CMU's Instructional Materials Support Collection (IMSC) to faculty users. The collection was established to serve the needs of CMU's off-campus faculty who often seek assistance in identifying, reviewing and comparing new instructional materials for possible course adoption.

In the 1986-87 fiscal year, Central Michigan University's extended degree program had over 18,400 enrollments in its graduate courses. During the same time period, over 500 faculty were listed as approved to teach classes at over 50 centers across the continental United States, in Hawaii, and Canada. Since 1972, when CMU first offered the opportunity to complete a graduate degree completely off-campus, the extended degree program has grown phenomenally. The program itself has been recognized as a model by other academic institutions, corporations and the U.S. military as providing quality educational opportunities for individuals whose current job-related situation and/or present personal life precludes their enrollment in a traditional, on-campus program. Courses offered reflect this nontraditional approach and are scheduled year around, often in a compressed time format ranging from several lengthy weekend meetings to one-night-a-week-for-eight-weeks sequences.

The text materials used in all off-campus Central Michigan University classes are selected by individual faculty members. There are no standard, course-wide adoptions. Although CMU's on-campus faculty are given first preference to teach off-campus classes, additional faculty are contracted to support the extended degree program. These adjunct faculty must receive approval to teach by the appropriate on-campus academic departments. They are often drawn from professional (e.g., corporate, medical, legal,
etc.) rather than academic settings and/or live in geographical areas where personal contact with either a university bookstore or publishers' representatives is extremely limited. It is this faculty segment, who by virtue of circumstance or location, find it difficult to keep abreast of and review without obligation new texts, case studies, and educational software that might be used in upcoming courses.

Establishment of the Collection

In June 1987, groundwork was laid to develop a systematic relationship with specific publishing companies that carried materials related to CMU's off-campus graduate degree program, the Master of Science in Administration (MSA). The MSA requires the completion of 12-15 semester hours of general administration courses designated as "core" courses which cover such content areas as administrative environments and processes, human resources, organizational financial analysis and control, and marketing. "Concentration courses" totalling between 15-18 semester hours and a required six hour MSA "integrative experience" round out the 36 hour graduate degree program. Depending on a student's location, he or she could select from among 75 concentration courses to complete his or her degree requirements (Bulletin, 15, 22-25). Appendix A provides a listing of the program's Master of Science in Administration (MSA) core courses and courses forming the integrative experience. Appendix B lists the program's concentration courses and their associated academic departments.

The first step in establishing a working relationship with the publishing companies was to identify which publishers had materials which faculty had previously recommended or selected to use as texts in their courses. Fortunately, CMU's extended degree program had three sources for identifying this group of target publishers.

1. "Model Course Outlines" for each core and concentration class. Model course outlines are written by on-campus faculty who contract to prepare "comprehensive generic summaries as perceived by Central Michigan University." The purpose of model course outlines is to provide faculty members teaching any given course with suggestions for course objectives, content considerations, and evaluative methods. Each model course outline contains a "suggested texts" section which lists specific materials for consideration and provides full bibliographic information.

2. A Course Syllabus File arranged by course number containing every syllabi prepared by faculty currently and/or
previously teaching in the program during the last five years. Each syllabus lists the texts actually used in the class.

3. A computerized file maintained by the CMU University Bookstore for each title ordered for each class during the previous eighteen months by course number. The University Bookstore is the sole ordering source for all commercially published extended degree program required course materials. Although used for ordering and inventory purposes, this file can serve as the automated counterpart to the course syllabus file described in #2 for text identification used in recent course offerings.

Given the number and scope of the courses offered through the external degree program, the decision was made to initially approach only those publishers whose materials were heavily used in the core courses. As mentioned previously, all students in the MSA program are required to enroll in between 12-15 hours of core courses, so this set of classes offers the greatest retail sales potential for publishers with materials appropriate to the academic content of these courses. Using only the core courses taught within the last 18 months (contained in the computerized file) and the model course outlines as sources for text identification, a listing was compiled of all publishers whose materials had been used. The 30 most frequently appearing publishing firms supplying titles then became priority contacts for marketing the project.

The next step was to prepare a packet of materials outlining how publisher assistance in the development of an instructional materials support collection represented expanded marketing as well as sales potential for the firm's college or professional division. The packet would be directed to the management level considered most likely to be receptive to the proposal and also have the authority to approve such a cooperative arrangement between the firm and CMU's extended degree program. Depending on the individual firm, the levels selected were either that with titles of "National Vice President" or "Marketing Manager" at corporate headquarters. As the entry point for presenting the proposal, this level proved to be more effective and efficient than directly contacting local representatives. This was the case since the turnover in representatives can be quite frequent and/or territories can be divided on a subject basis rather than along geographical lines.

The key document in the publisher's packet was a four-page letter explaining the nature of the project. The crux of the letter was a quantitative explanation of the sales potential that
project participation could represent. This explanation revolved around the following tabular summary of MSA enrollments in the core courses during the previous year:

**CORE COURSE TOTALS, 1986**

<table>
<thead>
<tr>
<th>COURSE</th>
<th># OF STUDENTS</th>
<th>SECTIONS</th>
<th>AVERAGE # PER SECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSA 610</td>
<td>1,875</td>
<td>80</td>
<td>23</td>
</tr>
<tr>
<td>MSA 620</td>
<td>2,075</td>
<td>89</td>
<td>23</td>
</tr>
<tr>
<td>MSA 630</td>
<td>1,116</td>
<td>53</td>
<td>21</td>
</tr>
<tr>
<td>MSA 640</td>
<td>1,370</td>
<td>67</td>
<td>20</td>
</tr>
<tr>
<td>MSA 650</td>
<td>1,680</td>
<td>73</td>
<td>23</td>
</tr>
<tr>
<td>MSA 660</td>
<td>1,254</td>
<td>58</td>
<td>22</td>
</tr>
</tbody>
</table>

In discussing the above figures, the letter emphasized that based on an average course materials expenditure of $45.00 per student/section for the 1986 total core course enrollment of 9,370, estimated text retail sales amounted to $421,650. Combined with the materials expenditures for concentration courses and the integrative experience needed to fulfill overall academic requirements for all classes sales were estimated to exceed $800,000 by the end of the year. The letter further pointed out that for off-campus CMU courses, extended degree program center representatives place all orders through the university's bookstore and are supplied with specific numbers of new texts for registering students. The schedule of course offerings and the distance of the course site from other sites or the main campus virtually precluded a market for the resale of texts.

Several other points were also addressed in the publishers' proposal letter:

1. The nature of the relationship established between the individual publishers and the program and the extent/limits of participation would be determined by the publisher (i.e. publisher-driven). Ideally, it would involve working with the publisher's designated local representative on a continuous basis to build the collection, receive notification when new titles or revised editions were released, and receive several copies of such and supporting materials (i.e. instructor's manuals, study guides, transparencies, etc.) for loan purposes. The publisher-designated representative could be at the firm's headquarters or one/several individuals in the field.

2. The Instructional Materials Support Collection would be
housed on Central Michigan University's main campus at Park Library in Mt. Pleasant, Michigan. It would be a separate, secured collection restricted for use to members of the extended degree faculty. The materials would be available on a loan basis to instructors seeking to identify and adopt new course materials.

3. Materials donated to the collection would be publicized to off-campus faculty through the extended degree program's quarterly newsletter, The Central Michigan University Faculty Update. Participating publishers would be included on the mailing list so that they could follow the collection's growth.

4. The project was specifically intended to serve the non-traditional needs of the program's teaching faculty and not as an alternative means of securing textbooks and supplementary materials gratis. The past abuse of desk copy requests was acknowledged as reprehensible. The collection would be used to answer legitimate faculty requests to keep abreast of and easily examine new materials as well as curtail such abuse.

Publisher Response

In mid-June 1987, project proposal packets were mailed to 30 publishing firms. The rate of response varied over the period, July 1987 – May 1988 as the description of the project filtered down from the headquarters, vice-presidential level to the regional sales level of individual firms. By the end of May 1988, 20 publishers were cooperating on a regular basis in support of the collection. Although collection scope and faculty use will be subsequently discussed, it is significant to note that 364 titles had been donated by June 1, 1988.

Collection Organization

At the same time that the project proposal packets were sent to publishers, a system for managing the donations was designed so that when the first materials were received they could be immediately available to program users. The initial system for recording and processing materials has remained unchanged during the collection's first year. When materials are received, they are entered into a computerized database using "File-It"TM software run on a Xenix™ multi-user system. Each record consists of the following data elements:

Accession number: Accession numbers are assigned in sequential order as materials are received. Provisions are made to tag supplemental materials such as instructor's manuals to parent texts and to
provide for multiple copies of titles.

Author: Up to three authors can be entered as associated with a given material.

Title: Titles are recorded as displayed on the title page.

Edition/Year: The current edition number and year of copyright as well as the preceding edition's number and year are recorded.

Course Designation: Each title is reviewed for its content appropriateness to courses offered in the graduate program. Materials can be assigned up to four courses. In assigning multiple course designations, the first course listed is considered to have strongest content linkage to the title. Most courses with multiple designators will have a combination of core and concentration course designations.

Publication Type: Materials are coded as to whether they are texts, instructor's manuals, stand-alone software, software with text, student study guides, test banks, transparencies or other. The comments field for the entire record often contains an explanation if "other" is used.

Date Material is Received: Only the month and year are recorded.

Method of Receipt: Materials are coded as to whether they have been donated to the collection as a result of the publisher automatically sending a title which fits the program's course profile; the result of a representative's campus visit to discuss new titles; or a campus-initiated telephone or letter requesting that a specific material be sent for collection inclusion.

Contact Providing the Material: The name of the publisher's local or headquarter's representative supplying the title.

Number of Loan Copies: The current number of copies of a title held in the collection.
Central Michigan University Library Call Number: Each title is checked against the main library collection. Current or earlier editions are recorded.

Comments: Section for additional items or observations to be recorded.

The physical material is also marked with the accession number, course designation, and copy number. A check-out card, card pocket, due date slip and a bookplate with the statement, "This Material Has Been Graciously Provided By Its Publisher for the CMU Library's Instructional Resources Collection" are also added.

Collection Scope

Although the initial project proposal letter only sought to have materials donated in the core course areas, most publishers chose to expand their donations to the concentration courses as well for even greater title visibility and sales. Tables 1 and 2 provide a profile of the collection as it relates to the core and concentration courses offered by the program. These tables have been developed using only the first course designation listed for the titles and do not attempt to incorporate overlap for titles carrying both core and concentration designations. Publishers also began donating titles which had some content applicability to various courses, but would probably not be selected as required texts by the faculty. These titles have also been retained as a part of the collection. However, they do not carry a course designation but rather are recorded as "Not Otherwise Classified" (NOC) and have been given a Library of Congress subject heading instead of a course designation. These materials are also entered into the "File-It" TM database as their status may change as courses are added to or deleted from the degree program. The collection profile for titles "Not Otherwise Classified" is presented in Table 3.

Several very interesting points can be made from examining the collection profiles. Of the 364 titles in the collection after approximately one year, 95 titles (26%) had been designated as appropriate for core course use; 166 titles (45.4%) were assigned to concentration courses; and 103 titles (28.3%) were not otherwise classified. It is important to note that the 95 titles in the core are spread among only seven classes including the integrative experience sequence of MSA 680/MSA 685; whereas the 166 concentration course titles are distributed among 75 course offerings.
Collection Use

Off-campus Library Services first officially announced the formation of the Instructional Materials Support Collection to its off-campus faculty in the Fall 1987 issue of *The Central Michigan University Faculty Update* (Staff, 1987, p. 10-11). This issue reached instructors in early September 1987. Even though no titles were listed in the article, faculty inquiries began immediately. The collection was in its infancy with only 61 titles. Twenty titles carried core course designations; 36 were designated for concentration courses; and 5 titles were not otherwise classified.

Through word-of-mouth among extended degree program personnel, information about the existence of the collection spread. New faculty were and continue to be encouraged to use the collection by CMU Center Representatives and Area Program Managers when instructors are first approved to teach and/or when they are preparing to teach a course for the first time. Faculty also have learned and continue to be updated about the service through quarterly issues of *Faculty Update*. Additionally, Off-campus Library Services librarians incorporate information on the collection into general library service presentations which they make at faculty development meetings and through personal contact during class visits.

Faculty requests fall into two general categories: (a) requests for specific materials and (b) requests for assistance in identifying new materials. If a faculty member has a particular material in mind and that material is already in the collection, it will be loaned to the faculty member for a one month period with the option for renewal if not otherwise in demand. If the title is not in the collection, and the material is published by a publisher participating in the collection, arrangements will be made to have the material added to the collection and then loaned to the requestor. If the title is from a non-participating publisher, the publisher will be contacted not only for the title, but to determine interest in collection participation. Each time a loan is made, a sheet explaining the nature and scope of the collection is included with the materials.

Statistical categories tracking collection use were not predetermined at the project's outset, but have evolved as the collection has grown. From November 1987 - May 1988, only the number of individuals making inquiries per month was officially reported in Off-campus Library Services monthly reports. However, by analyzing individual requestor inquiry data sheets for that seven month period, the following breakdowns on inquiries emerged.
Of the 68 inquiries received during the period, 61 individuals made one collection inquiry; six made two inquiries; and one made three inquires.

Of the 68 inquiries received, 31 (45.6%) inquiries were related to core courses or the integrative experience. Among the core courses, MSA 620, "Human Resources and Administrative Effectiveness" had the highest number of requests with nine (29%). This course was followed closely by two other courses: MSA 610, "Environments in Administration," with eight requests (25.8%) and MSA 630, "Financial Planning and Analysis," with seven requests (22.6%). The integrative experience, MSA 680/685, "Integrative Analysis of Administration" ranked fourth in requests with four (13%). MSA 640, "Quantitative Applications in Administrative Decision Making;" MSA 650, "Administration in Dynamic Organizations;" and MSA 660 "Marketing Administration" each received one inquiry (3.2%).

Of the 68 inquiries received, 37 (54.4%) were related to concentration courses. Inquiries fell within 10 of the 16 academic areas represented by concentration courses. The highest number of inquiries were for materials in Industrial and Engineering Technology (IET) with nine (24.3%). In a request pattern similar to that for core courses, Psychology (PSY) and Health Education and Health Science (HES) followed closely with eight requests (21.6%) and seven requests (19%) respectively. Rounding out the requests for materials related to concentration courses were Computer Science (CPS) with four requests (10.8%); Economics (ECO) with three requests (8.1%); Political Science with two requests (5.4%); and Interpersonal and Public Communication (IPC), Management (MGT), and Marketing (MKT) each with one request (2.7%).

Based on the 68 inquiries received, 94 items (texts and supplementary materials) were sent. Thirty-seven items (39.4%) carried core course designations. Forty-two items (44.7%) were from the concentration course areas. And 15 items (15.9%) were not otherwise classified.

With the beginning of Central Michigan University's 1988-1989 fiscal year on July 1, 1988, more sophisticated record keeping is planned to allow for greater understanding of the collection's patterns and volume of donations and usage. Records will be kept on a monthly basis for the number of publishers making donations, the number of titles of both text and supplementary materials received and the number of titles assigned to core, concentration or not otherwise classified divisions of
the collection. Statistics will also be kept on requestors and their curricular needs. Inquiries will be recorded by departmental course, the number of items requested, the number of items sent and the reasons why specific items were not supplied. It is believed that this expanded analysis will allow for the collection development to be more responsive to CMU's off-campus faculty's needs and allow for the identification of other publishers not yet involved in the project.

Conclusion

In approximately one year, the Central Michigan University Off-campus Library Services Instructional Materials Support Collection has evolved from a recognized need to assist off-campus graduate faculty teaching in the extended degree program into a working collection. The growth of the collection can almost exclusively be attributed to the interest of individual publishing firms in cooperating with the program to reach a market segment (i.e. off-campus faculty) otherwise difficult if not impossible to contact in a systematic way. The project's continued success will be based on two aspects of its administration. First, the spirit of mutual cooperation and benefit between Off-campus Library Services and the contributing publishers is critical to collection development and value. Contributing publishers need to be informed regularly as to the collection's growth, use, and areas of faculty need. Secondly, off-campus faculty need to be aware of the collection and other related services which the library program offers to identify and provide curricular materials. Knowledge of the collection and its scope, although primarily marketed by Off-campus Library Services Librarians through personal contact, must continue to reach the faculty audience in as many ways as possible. The project remains an exciting one and in the years to come plans for collection development include more items of a case study nature and software products.
References


Staff. (Fall, 1987). Library textbook loan collection planned to enhance faculty instructional support. Central Michigan University Faculty Update, p. 10-11.
Appendix A

Central Michigan University Master of Science in Administration "Core Courses" and "Integrative Experience Courses," 1987-1988

MSA 610 Environments in Administration
MSA 620 Human Resources and Administrative Effectiveness
MSA 630 Administrative Analysis and Control
MSA 640 Quantitative Applications in Administrative Decision Making
MSA 650 Administration in Dynamic Organizations
MSA 660 Marketing Administration
MSA 680 Integrative Analysis of Administration I
MSA 685 Integrative Analysis of Administration II

Appendix B

Central Michigan University Academic Departments and Their Graduate Course Offerings Available in the Master of Science in Administration for "Concentration Course" Requirement Fulfillment 1987-1988

COUNSELOR EDUCATION AND PERSONAL DEVELOPMENT (CED)

CED 502  Student Development in Higher Education
CED 650  Interpersonal Communication Skills

COMPUTER SCIENCE (CPS)

CPS 505  Computer Usage for the Behavioral Scientist
CPS 530  Simulation of Discrete Event Systems
CPS 601  Computerized Health Care Systems
CPS 603  Computer Information Systems

EDUCATIONAL ADMINISTRATION (EAD)

EAD 567  Principles of Community Education
EAD 610  Grants and Fund Procurement
EAD 663  Personnel Administration
EAD 669  Negotiations in Education
EAD 676  Administration of Community Colleges

ECONOMICS (ECO)

ECO 503  Seminar in Urban Economics
ECO 515  Collective Bargaining and Labor Law
ECO 532 Economic Forecasting
ECO 603 Economic Effects of Urbanization and Technology
ECO 614 Seminar in Labor Economics
ECO 625 Market Structure and Government Policy
ECO 660 Public Finance and Fiscal Policy

ELEMENTARY EDUCATION (ELE)
ELE 531 Corrective Reading in the Classroom
ELE 640 Problems in Social Studies in Elementary School
ELE 645 Problems in Science in the Elementary School
ELE 660 Methods of Educational Research
ELE 682 Psychology of Child Development

HEALTH EDUCATION AND HEALTH SCIENCE (HES)
HES 520 Health Services Administration
HES 544 Biostatistics
HES 545 Health Planning
HES 570 Financial Aspects of Health Services Organizations
HES 571 Legal Aspects of Health Services Organizations
HES 601 Computerized Health Care Systems
HES 607 Medical Care Organization
HES 617 Community and Public Health

INDUSTRIAL AND ENGINEERING TECHNOLOGY (IET)
IET 500 Production Concepts
IET 501 Application of Industrial Management Principles
IET 502  Computer Application in Industry
IET 521  Study of American Industry
IET 524  Technology and Environment
IET 575  Industrial Robotics

INTERPERSONAL AND PUBLIC COMMUNICATION

IPC 560  Communication and Change: The Diffusion of Ideas and Information
IPC 664  Advance Organizational Communications
IPC 665  Seminar in Communication and Negotiation in Employee Relations

JOURNALISM (JRN)

JRN 551  Public Relations Cases and Processes
JRN 556  Public Relations Seminar
JRN 670  Public Relations Management

MANAGEMENT (MGT)

MGT 500  Comparative Labor Relations Systems
MGT 542  Production Planning and Control
MGT 645  Compensation Administration
MGT 647  Personnel Selection and Evaluation
MGT 649  Seminar in Organizational Development

MARKETING (MKT)

MKT 560  International Marketing
MKT 662  Management of Integrated Logistic Systems
<table>
<thead>
<tr>
<th>POLITICAL SCIENCE (PSC)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC 511 Personnel and Organization in Public Bureaucracies</td>
<td></td>
</tr>
<tr>
<td>PSC 514 American Public Policy Making</td>
<td></td>
</tr>
<tr>
<td>PSC 522 Regulatory Processes and Administrative Law</td>
<td></td>
</tr>
<tr>
<td>PSC 561 American State Government and Administration</td>
<td></td>
</tr>
<tr>
<td>PSC 566 Intergovernmental Relations in the United States</td>
<td></td>
</tr>
<tr>
<td>PSC 583 Survey Research</td>
<td></td>
</tr>
<tr>
<td>PSC 711 Public Personnel Administration Practice</td>
<td></td>
</tr>
<tr>
<td>PSC 712 Developing and Implementing Public Programs</td>
<td></td>
</tr>
<tr>
<td>PSC 713 Governmental Finance and Budgeting</td>
<td></td>
</tr>
<tr>
<td>PSC 714 Program Evaluation</td>
<td></td>
</tr>
<tr>
<td>PSC 775 Organization Theory in Public Administration</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PSYCHOLOGY (PSY)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 531 Group Dynamics</td>
<td></td>
</tr>
<tr>
<td>PSY 535 Organizational Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 536 Personnel Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 636 Organizational Application of Personnel Psychology</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECONDARY EDUCATION (SED)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SED 570 Measurement and Evaluation</td>
<td></td>
</tr>
<tr>
<td>SED 602 Strategies and Techniques for Teaching</td>
<td></td>
</tr>
<tr>
<td>SED 604 Developing and Utilizing Behavioral Objectives</td>
<td></td>
</tr>
<tr>
<td>SED 607 Current Educational Issues</td>
<td></td>
</tr>
</tbody>
</table>
SED 614  Advanced Educational Psychology
SED 655  The Community College
SED 660  Methods of Educational Research
SED 705  Theory and Practice of Curriculum Development
SED 706  Theory and Practice of Instruction
SED 765  Seminar in Curriculum Problems

SOCIOLOGY (SOC)

SOC 504  Seminar in the Community
SOC 512  Industrial Psychology

STATISTICS (STA)

STA 580  Applied Statistical Methods

Table 1

Instructional Materials Support Collection (IMSC) Holdings for
Master of Science in Administration (MSA) Courses*

November 1987 - May 1988

<table>
<thead>
<tr>
<th>Academic Course</th>
<th>No. of Titles w/MSA Course Designation (T = 7)</th>
<th>% of Titles w/MSA Course Designation (T = 95)</th>
<th>% of Total IMSC Titles (T = 364)</th>
<th>% of Total IMSC Titles minus NOC Titles (T = 261)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSA 610</td>
<td>14</td>
<td>14.7</td>
<td>3.8</td>
<td>5.4</td>
</tr>
<tr>
<td>MSA 620</td>
<td>8</td>
<td>8.4</td>
<td>2.2</td>
<td>3.1</td>
</tr>
<tr>
<td>MSA 630</td>
<td>17</td>
<td>17.9</td>
<td>4.7</td>
<td>6.5</td>
</tr>
<tr>
<td>MSA 640</td>
<td>12</td>
<td>12.6</td>
<td>3.3</td>
<td>4.6</td>
</tr>
<tr>
<td>MSA 650</td>
<td>10</td>
<td>10.5</td>
<td>2.7</td>
<td>3.8</td>
</tr>
<tr>
<td>MSA 660</td>
<td>16</td>
<td>16.8</td>
<td>4.4</td>
<td>6.1</td>
</tr>
<tr>
<td>MSA 680/MSA 685</td>
<td>18</td>
<td>18.9</td>
<td>4.9</td>
<td>6.9</td>
</tr>
</tbody>
</table>

(99.8%) (26.0%) (36.4%)

Note. *See Appendix A for full titles listings of Central Michigan University Master of Science in Administration (MSA) core and "integrative experience" courses, 1987-1988.
<table>
<thead>
<tr>
<th>Academic Department</th>
<th>No. of Titles w/No. of Courses</th>
<th>% of Titles w/Conc. Course Designation (T = 166)</th>
<th>% of Total IMSC Titles (T = 364)</th>
<th>% of Total IMSC Titles minus NOC Titles (T = 261)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CED (2)</td>
<td>5</td>
<td>3.0</td>
<td>1.4</td>
<td>1.9</td>
</tr>
<tr>
<td>CPS (4)</td>
<td>14</td>
<td>8.4</td>
<td>3.8</td>
<td>5.4</td>
</tr>
<tr>
<td>EAD (5)</td>
<td>10</td>
<td>6.0</td>
<td>2.7</td>
<td>3.8</td>
</tr>
<tr>
<td>ECO (7)</td>
<td>17</td>
<td>10.2</td>
<td>4.7</td>
<td>6.5</td>
</tr>
<tr>
<td>ELE (5)</td>
<td>21</td>
<td>12.7</td>
<td>5.8</td>
<td>8.0</td>
</tr>
<tr>
<td>HES (7)</td>
<td>14</td>
<td>8.4</td>
<td>3.8</td>
<td>5.4</td>
</tr>
<tr>
<td>IET (5)</td>
<td>21</td>
<td>12.7</td>
<td>5.8</td>
<td>8.0</td>
</tr>
<tr>
<td>IPC (3)</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>JRN (3)</td>
<td>2</td>
<td>1.2</td>
<td>0.5</td>
<td>0.8</td>
</tr>
<tr>
<td>MGT (5)</td>
<td>10</td>
<td>6.0</td>
<td>2.7</td>
<td>3.8</td>
</tr>
<tr>
<td>MKT (1)</td>
<td>3</td>
<td>1.8</td>
<td>0.8</td>
<td>1.1</td>
</tr>
<tr>
<td>PSC (11)</td>
<td>15</td>
<td>9.0</td>
<td>4.1</td>
<td>5.7</td>
</tr>
<tr>
<td>PSY (4)</td>
<td>19</td>
<td>11.4</td>
<td>5.2</td>
<td>7.3</td>
</tr>
</tbody>
</table>
Table 2 continued

<table>
<thead>
<tr>
<th>Academic Department</th>
<th>No. of Titles w/No. of Courses Offered (n)</th>
<th>% of Titles w/Conc. Course Designation (T = 166)</th>
<th>% of Total IMSC Titles w/Conc. Course Designation (T = 364)</th>
<th>% of Total IMSC Titles minus NOC Titles (T = 261)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SED (10)</td>
<td>8</td>
<td>4.8</td>
<td>2.2</td>
<td>3.1</td>
</tr>
<tr>
<td>SOC (2)</td>
<td>1</td>
<td>0.6</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>STA (1)</td>
<td>6</td>
<td>3.6</td>
<td>1.6</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>(99.8)</td>
<td>(45.4)</td>
<td>(70.7)</td>
<td></td>
</tr>
</tbody>
</table>

Note: *See Appendix B for full title listings of Central Michigan University academic departments and their graduate course offerings available in the Master of Science in Administration for concentration course requirement fulfilment.
Table 3

Subject Headings Assigned to "Not Otherwise Classified" Holdings

Material in the Instructional Materials Support Collection as of May 1988

<table>
<thead>
<tr>
<th>Subject Headings</th>
<th>Number of Titles With Assigned Subject Headings</th>
</tr>
</thead>
<tbody>
<tr>
<td>(T = 48)</td>
<td>(T = 103)</td>
</tr>
<tr>
<td>Accounting</td>
<td>10</td>
</tr>
<tr>
<td>Administrative Law</td>
<td>1</td>
</tr>
<tr>
<td>Adolescence</td>
<td>1</td>
</tr>
<tr>
<td>Business Communications</td>
<td>12</td>
</tr>
<tr>
<td>Business Ethics</td>
<td>1</td>
</tr>
<tr>
<td>Business Law</td>
<td>1</td>
</tr>
<tr>
<td>Case Method</td>
<td>1</td>
</tr>
<tr>
<td>Communications</td>
<td>3</td>
</tr>
<tr>
<td>Computer Software</td>
<td>1</td>
</tr>
<tr>
<td>Computers</td>
<td>9</td>
</tr>
<tr>
<td>Econometrics</td>
<td>1</td>
</tr>
<tr>
<td>Economics</td>
<td>1</td>
</tr>
<tr>
<td>Educational Testing</td>
<td>1</td>
</tr>
<tr>
<td>Electronic Data Processing</td>
<td>1</td>
</tr>
<tr>
<td>Electronic Data Processing Personnel</td>
<td>1</td>
</tr>
<tr>
<td>Expert Systems</td>
<td>2</td>
</tr>
<tr>
<td>Faculty Development</td>
<td>2</td>
</tr>
<tr>
<td>Finance</td>
<td>1</td>
</tr>
<tr>
<td>Financial Planning</td>
<td>1</td>
</tr>
<tr>
<td>Housing--United States</td>
<td>1</td>
</tr>
<tr>
<td>Human Engineering</td>
<td>2</td>
</tr>
<tr>
<td>International Business</td>
<td>2</td>
</tr>
<tr>
<td>Interviewing</td>
<td>1</td>
</tr>
<tr>
<td>Investment</td>
<td>1</td>
</tr>
<tr>
<td>Labor Relations</td>
<td>1</td>
</tr>
<tr>
<td>Logistics</td>
<td>2</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>4</td>
</tr>
<tr>
<td>Management Information Systems</td>
<td>1</td>
</tr>
<tr>
<td>Manufacturing Processing</td>
<td>1</td>
</tr>
<tr>
<td>Mental Health Laws</td>
<td>1</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>2</td>
</tr>
<tr>
<td>Nonprofit Organizations</td>
<td>2</td>
</tr>
<tr>
<td>Operations Research</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 3 continued

<table>
<thead>
<tr>
<th>Subject Headings</th>
<th>Number of Titles With Assigned Subject Headings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Behavior</td>
<td>1</td>
</tr>
<tr>
<td>Organizational Change</td>
<td>1</td>
</tr>
<tr>
<td>Personnel Management</td>
<td>1</td>
</tr>
<tr>
<td>Production Management</td>
<td>1</td>
</tr>
<tr>
<td>Public Opinion</td>
<td>1</td>
</tr>
<tr>
<td>Quality Control</td>
<td>1</td>
</tr>
<tr>
<td>Reading</td>
<td>4</td>
</tr>
<tr>
<td>Reliability</td>
<td>1</td>
</tr>
<tr>
<td>Research</td>
<td>1</td>
</tr>
<tr>
<td>Sales Management</td>
<td>2</td>
</tr>
<tr>
<td>Special Education</td>
<td>1</td>
</tr>
<tr>
<td>Statistics</td>
<td>1</td>
</tr>
<tr>
<td>Style Manuals</td>
<td>1</td>
</tr>
<tr>
<td>Trade Unions</td>
<td>2</td>
</tr>
<tr>
<td>Writing</td>
<td>1</td>
</tr>
</tbody>
</table>
Document Delivery

Lois Gilmer
University of West Florida

Much has been said and written about library services to off-campus students. Sophisticated technology for searching on-line databases and on-line catalogs from the parent campuses is being provided to even the remotest areas. Toll-free numbers to parent campuses are being provided also, all for the purpose of gaining access to library materials, since few holdings are normally held in off-campus centers or sites. As Carolyn Warmann (1986) points out, however, access to the catalog without better access to the collections does only half the job; timely delivery is essential.

In some situations, professors and/or librarians are the pick-up and delivery service for materials housed on the parent campuses. Librarians may drive vans patterned after the library bookmobile. Vans that transport professors back and forth from the parent campuses are also used to transport materials, usually on a daily basis.

The traditional interlibrary loan service is employed in bringing needed materials to students in remote areas once the materials are located in libraries other than the parent libraries, and often in the parent libraries as well. Depending upon circumstances, 20% to 60% of the total turnaround time for an interlibrary loan request to be filled can be attributed to the actual delivery of the requested material (Waldhart, 1985). Other variables that contribute to the overall turnaround time are verification and transmission of requests and photocopying of articles.

Verification

In a study based on requests made at the Southeastern Louisiana University Library (Budd, 1985), the mean supply time for a document from the user making the request to the document arriving in the library was 19.13 days with a median of 17 days in a 2-95 day range. Of these 19.13 days, no fewer than 6.46 days elapsed between the user making the request and that request being entered into the on-line system. In other words, the request verification process required in excess of 6 days.
Transmission of Requests

Many studies have been conducted among the various methods of transmitting requests, especially since the advent of on-line interlibrary loan. In assessing the impact of OCLC's interlibrary loan subsystem on turnaround time, Memagua (1979) reported that the use of the system by the New York South Central Research Council reduced the average turnaround time from approximately 24 working days (pre-OCLC) to 12 working days using OCLC for all types of requests. Taler and Klapper (1982) reported that using OCLC for requesting books (both in-state and out-of-state) resulted in an average turnaround time of 16.3 calendar days. On the other hand, requests for books using ALA forms that had to be mailed had a turnaround time of 22.1 calendar days. During the same year, Baker (1982) found that, for books only, OCLC requests averaged 12 days turnaround time; mail 24 days; and TWX 17 days.

Palmar, Bryant, Caldwell, and Gray (1972) determined that 87% of all direct costs of interlibrary loan could be attributed to salaries of personnel. Nevertheless, the method chosen for transmitting requests is usually determined by the cost, or presumed cost, of using a particular method. In a study conducted in Florida (Gorin & Kanen, 1981), average cost for communication per filled request was $4.21 for TWX, $2.82 for the mail, $1.60 for OCLC, and .94 for a closed-circuit teletype system. Givens (1982) found that use of electronic mail reduced telecommunication cost from $1.25 per request using TWX, to .20 using electronic mail. De John (1982) conducted a survey among northwest libraries that used electronic mail and found that some libraries saved $1,200 to $2,500 per year by substituting electronic mail for TWX systems. Weaver (1984) found that for interlibrary loan requests filled on the first pass, the average transmission cost (including labor) was $1.13 for mail, $1.89 for TWX and $2.63 for OCLC. Where a sequential referral to three locations was needed to fill the request, the average cost of OCLC did not change, while the cost of mail increased to $3.39, and the cost of TWX increased to $5.67 per filled request. In light of these studies, it is not surprising that the TWX machine has been replaced by the computer, because the computer is not only faster but also less expensive to use.

Photocopying

Budd (1985) found that the average periodical request took 2.9 days longer to fill than a monograph request. The system in place for photocopying the articles allowed for the delay.
Courier

As mentioned earlier, courier systems of a formal or informal nature generally exist between parent campuses and off-campus sites. If the parent campus also belongs to a regional or state-wide network, the sites may be able to participate in a broader-based courier service. Illinois, Pennsylvania, and Connecticut library-sponsored document delivery services have one to three days delivery time with a high degree of reliability (Nitecki, 1984).

Library-sponsored delivery systems are effective when very high volume activities are involved within a reasonably limited geographic area, where a large part of the interlibrary loan traffic consists of books instead of photocopies, and where a high degree of reliability in delivery is desired. Where these conditions are satisfied, library-sponsored delivery services seem to be the least expensive, the fastest, and the most reliable (Waldhart, 1985). Seventy-three percent of national multitype library networks also have delivery systems reliably linking libraries of the same type and of different types (Turlock, 1986).

United States Postal Service (USPS)

Although Boss and McQueen (1983) noted that 15% of interlibrary loan requests are now sent electronically (via bibliographic utilities, electronic mail, teletypewriter, etc.), more than 95% of the time physical items requested are sent through the U.S. Postal Service. The most important reasons for this type of mail delivery are availability and cost. Everybody has easy access to the U.S. mail. Special library rates created by the U.S. Congress in 1928 place the U.S. mail in a class with which other systems are unable to compete. In light of commercial abuses of the reduced rates, however, Congress is reassessing subsidizing library mail (Lawson & Kielbowicz, 1988). Average delivery time for books sent library rate is five days while delivery time for photocopies sent first class is two days (Kaya & Hurlebaus, 1978).

United Parcel Service (UPS)

The closest competitor of the U.S. Postal Service is the United Parcel Service, but this service is not as accessible as the USPS. Other special delivery systems, such as Federal Express, for example, are even less accessible, especially in remote areas, and are even more expensive. Average document delivery time from UPS is two days (Kaya & Hurlebaus, 1978), and when documents are insured at the same rate, the costs of USPS and
UPS are essentially the same.

Insurance is required by United Parcel Service, while it is not required by the United States Postal Service. Most libraries, therefore, elect to mail with the USPS. Kaya and Hurlebaus (1978) found that in a limited geographic area of 112 to 262 miles, the use of the U.S. Postal Service was about five times less expensive than using insured United Parcel Service. If a large part of a library's interlibrary loan transactions consist of photocopies not requiring insurance, the economic advantage would swing substantially to USPS over UPS as a document carrier.

On-line Delivery

The on-line industry is contributing to document delivery, because many requests for materials originate from database searching. Database searching is a service widely provided to off-campus students. Documents cited may be ordered on-line and printed off-line, or full-texts may be retrieved on-line.

Cost of searching full-text databases is decreasing as usage of the system increases. For example, Information Access Company's MAGAZINE INDEX and TRADE AND INDUSTRY ASAP initially offered full-text on-line articles for $7.00 each. The 1987 cost was $1.00 each for on-line articles and $2.00 for off-line prints (Colbert, 1988).

Colbert (1988) names several advantages and disadvantages to full-text on-line retrieval. The advantages are: 1. Speed--Turnaround time for delivery of articles is immediate. 2. Exclusive availability--Some publishers are beginning to cancel print publications and offer only on-line access to certain material. 3. Price--In many cases, cost of full-text on-line retrieval can be cheaper than hardcopy. 4. Immediate access--A searcher does not have to find sources and physically visit a library. 5. Access to hard-to-find information--Publications usually discarded, such as newsletters, can easily be kept in a database. 6. Early access--Current information is sometimes accessible on-line before the hard copy is available.

Disadvantages of full-text on-line retrieval are:
1. High quality graphs, pictures, and charts can no be produced.

2. Color printing is unavailable.

3. Many on-line services must be utilized for broad coverage. Subscription fees, membership dues, and
monthly premiums must be paid as required.

4. A competent searcher is needed.

5. Searching by volume, year, or page is impossible.

6. Only one format is currently available. (No back issues, no microfilm, etc.)

**Commercial Document Suppliers**

The major United States commercial on-line search services—BRS, Dialog, and SDC—have document ordering capabilities, and they are facilitating the order process by improving this service. Specifications for shipping the materials ordered on-line may be given—airmail, UPS, Federal Express, etc. This is usually not possible when dealing with library suppliers. Deposit accounts may also be set up (ex.: ERIC).

During the 1970's through the mid-1980's, commercial document suppliers of two kinds appeared on the scene (Kennedy, 1987). Some make use of an existing collection, and others specialize in finding and supplying documents from a variety of sources. These are often called information brokers.

Commercial document suppliers deal largely in photocopies, rather than original material. Examples of collection specific suppliers are Chemical Abstracts Service Document Delivery Service, the Institute for Scientific Information's The Genuine Article, and University Microfilm International's article clearinghouse.

There is a long list of full-service suppliers, and it continues to grow. Some of the full-service suppliers are connected to libraries or librarians, as the British Library Document Supply Centre, Michigan Information Transfer Source from the University of Michigan, and Information on Demand, which was formed by a librarian.

Ashby (1985) describes the advantages of Information on Demand as a supplier over conventional interlibrary loan service as dedicated staff, flexible services, a single source, and legal indemnity. Jean Currie (1985), however, found Information on Demand to be one of the slowest sources and that libraries are the cheapest. Libraries took an average of 13.5 days to supply documents against 6.2 days for commercial sources. Wiggins (1985) states that there is evidence that corporate libraries use commercial delivery services significantly more than do their
academic counterparts, even though speed of delivery is considered the most important factor to librarians in both types of libraries. The corporate librarians are more likely to have in place procedures for getting the copy to the end user more quickly than the academic librarians.

Telefacsimile

Telefacsimile, or FAX, as it is commonly called, is the technology of the transmission of documents over ordinary phone lines. The equipment operates much like a photocopier, except that it is also hooked up to a telephone jack. It is presently used for delivery of journal articles, not books, because only single sheets of paper can be fed into machines that are priced within reach of libraries.

FAX operates by scanning a page and translating what it sees into dots per square inch. The dots are translated into tones to be transmitted by the phone, and the tones are, in turn, translated back to dots on a page. Transmission of a FAX message takes about 20 seconds per page (Lindberg, 1986). Telefacsimile is presently being used between libraries and to and from off-campus locations. Turnaround time is reduced from days to minutes or hours. Wilson (1988) estimates cost by determining the cost of the long distance phone call, personnel, and supplies.

Summary

Document delivery can be improved to off-campus libraries, as well as other libraries, if a number of factors involved in the process are scrutinized for cost and efficiency. Time lags in verification of requests and photocopying of articles could be avoided by streamlining procedures that would minimize delays. Generally, only personnel factors would be involved here.

The method used to transmit the request takes more in-depth study. Generally speaking, the fastest way to transmit requests is also the most expensive, so priorities often have to be set. The overall cost of the interlibrary loan service has risen to the point that librarians are already having to "shop around" for the best suppliers, so cost cannot be ignored. From the studies that have been made on the cost and efficiency of various methods of transmitting requests, electronic mail appears to have the best combination of expense and efficiency. The drawback would be the number of libraries equipped to exchange electronic messages. It seems an excellent way of communicating with a parent campus, provided, of course, networking is in place. The next cheapest method and the most accessible means for transmitting requests is
first class U. S. mail. Mail requests, however, have to wait usually until the requests sent electronically have been filled, so additional time is lost before a request is filled.

The longest time lag in filling an interlibrary loan request is between the receipt of the request and actual delivery of the document. Retrieval, photocopying, and packaging all cause delays, so the fastest affordable delivery system should be chosen. Van service from the off-campus site to the parent campus and throughout a network is satisfactory for books. Where such service is unavailable, library rate through the U. S. Postal Service is the least expensive but also the most time-consuming method of delivery. When packages are insured, rates for delivery by the U. S. Postal Service and United Parcel Service are approximately the same, so one should probably elect the U. S. Postal Service, because that service is more accessible.

Journal articles can be received in two days through the U. S. Postal Service or by van, in perhaps a shorter time span, through traditional interlibrary loan. Commercial ventures are changing photocopy delivery, because articles can be ordered on-line when a database search is conducted, and—if the article is not held in the parent library or in a local network—at a cheaper rate than traditional interlibrary loan. Delivery time varies from better than to worse than library delivery, according to research studies. Commercial vendors seem to work best for special libraries or sites used for teaching in very few subject areas, because of the subscription costs involved in obtaining a variety of databases. Very competent searchers must also be available. The same can be said for full-text searching. Full-text searching also generally results in less than full-text retrieval.

When immediate access is needed, telefacsimile transmission is ideal, but cost prohibits widespread use, except in large networks. The technology is improving, however, and costs are decreasing. The future FAX machine may be an add-on product for a computer, or it may be a stand alone desktop model.

Patricia Appavoo, Athabasca University in Alberta, Canada, indicates in her paper presented at the 13th World Conference of the International Council for Distance Education that the electronic library is the natural form for distance education library services (Appavoo, 1985). At the present time, expense and accessibility may override service and still present barriers to the electronic library, but the gap is being closed. The personal computer which has become so commonplace in libraries can now send and receive electronic mail from other PC's. PC's can
even send messages to FAX machines, and with Western Union's software package and Easy Link service ($25.00 minimum per month), they can also access databases. University Microfilms International has developed a prototype Information Delivery Module which supports local and remote document retrieval and integrates information searching, ordering, and delivery (Kennedy, 1987).
References


Managing Off-Campus Professional Programs at

Liberal Arts Colleges

Michael Haeuser, Gustavus Adolphus College
Janet Kinney, College of St. Catherine

Introduction

In 1986 three Minnesota Phi Beta Kappa liberal arts colleges with well established, respected programs of baccalaureate nursing education merged their nursing departments into a combined academic program. The Minnesota Intercollegiate Nursing Consortium (MINC) has the potential for becoming a national model for nursing education and a strong local example of institutional cooperation. Library services, for example, will be provided at one of the locations but will be supported, off campus, by the two other colleges.

Students will spend the first two years at either the College of St. Catherine, Gustavus Adolphus College, or St. Olaf College pursuing liberal arts courses and nursing prerequisites. They will then move to the residential campus of St. Catherine's, for three semesters, to share learning with other MINC students at clinical facilities in the Minneapolis-St. Paul area. They will also have access to the combined library and audio-visual resources of the three colleges. Finally, they will return to their home campus for a capstone senior semester and a bachelor's degree.

This paper will briefly describe the participating colleges, the educational and economic reasons for the creation of the consortium and outline the new program. It will then examine the administration of the program as an off-campus library project for two of the participants and the accommodation of additional and shared responsibilities of an off-campus program in an on-campus facility for the other. Included will be a description of how the new consortium accommodated three distinct library service traditions and the library environment in the Twin Cities; how it provides for material access and delivery, deals with technology (for example, the three colleges have two different on-line catalog and interlibrary loan systems) and coordinates the budget, support and management for the project.
The Colleges

The College of St. Catherine, St. Paul, Gustavus Adolphus College, St. Peter, and St. Olaf College, Northfield, are three private, church-related, liberal arts, Phi Beta Kappa institutions in Minnesota with a common commitment to professional education for nurses. Within the liberal arts context the three colleges have a combined history of over one hundred years in baccalaureate nursing education. Gustavus and St. Olaf are coeducational, rural and Lutheran. St. Catherine's is a women's college, urban and Roman Catholic. The changing nature of health care education, particularly nursing, provided the opportunity to consider consolidating resources and offering one program where several had existed. In 1986, after three years of planning, the nursing programs from all three colleges entered into a formal cooperative agreement to establish the Minnesota Intercollegiate Nursing Consortium. Concurrently the library staffs began to plan for the September 1988 advent of the program.

Rationale

Employment of registered nurses is expected to rise much faster than the average for all occupations through the 1990's, and beyond. in response to the health care needs of a growing and rapidly aging population. But nursing education must be seen in the present context of shifting resources in the health-care, economic and educational world. In MINC's case, as in the case of nursing education nationwide, projected enrollment declines are accompanying the optimistic forecasts of employment. Other important changes that have to be considered are rising educational costs for the consumer, changing social values about service professionals, the public image of nursing as a career choice and the movement of health care delivery into the community. Still, the major consideration in nursing education is cost and the three colleges sought to meet the demand for increased quality by pooling human, fiscal, physical and technical resources. A 1984 position paper, prepared by a steering committee, observed that due to budget restraints, "it is difficult for individual departments to fiscally maintain and update library and audiovisual materials, computer hard and software appropriate to educating students for future professional practice." A consortium, it added, "will make it possible for departments of nursing at the three colleges to pool library and other support materials" as well as "student services, cultural resources and social advantages of a residential college campus."

There were other considerations weighed. One was the program's appeal to prospective students. Earlier the three
colleges had separate constituencies which offered baccalaureate
nursing programs to students seeking the specific qualities of the
three academic institutions. Now the consortium is presented to
potential students as an opportunity for them to experience the
benefits of pooled resources, library and otherwise, and at the
same time, maintain allegiance to a selected liberal arts college.
In addition, recruitment has been expanded beyond the individual
identity of the college to seek students interested in not only a
liberal arts college but in a progressive program that would be
unique to the nation as a whole.

Another pertinent rationale for the consortium concerned the
church-relatedness of each sponsoring institution. World-wide
efforts at merging, or at least accommodating, theological belief
systems supported the consortium's claim to be both a symbolic and
substantive effort in ecumenicity. The merging of major Lutheran
church bodies during this time and the related cooperative efforts
of two Lutheran college departments of nursing with a school whose
heritage is deeply rooted in Roman Catholicism, is a model for
joint endeavors of the ecumenical movement.

Another consideration was that of financing. It has been
demonstrated that funding agencies tend to support programs that
plan for sound, but innovative change. The MINC program has
attracted attention from private foundations and public agencies
interested in cooperative efforts.

Consideration of rationale related to curricular matters was
of major importance. The consortium brought together the
creativity and strengths inherent in the three private liberal
arts baccalaureate programs in nursing. It is encouraging the
creation of an innovative nursing program that will prepare
graduates who will contribute to a changing health care delivery
system. But beyond that the consortium is capable of expanding
current offerings and developing new opportunities for the
professional nurse desiring ongoing education in a liberal arts
setting. Trends in professional nursing support the creation of
programs in such areas as graduate education, continuing education
and nontraditional formats sensitive to the needs of students and
professionals from many different backgrounds.

As the consortium was painstakingly formed, the people
involved were aware that it could serve as a model for other
liberal arts colleges who are considering cooperative efforts in
baccalaureate nursing education. The potential of people working
together within a consortium can provide leadership in developing
nursing curriculum, theory and research; in identifying and
addressing professional issues; and in crafting cooperative
programs to provide library, media and computer support.

The Program

Undergirding the statements of rationale and development of curricula for the consortium is the conviction that it is vital for nursing students to combine rigorous scientific and clinical studies with a broad range of courses in the liberal arts. Thus, in addition to prerequisites and nursing courses, students also take a liberal arts core curriculum that includes the fine arts, religion, humanities and foreign languages. During these first two years and in residence at the individual campuses, students also take prerequisite courses like anatomy and physiology, chemistry, microbiology, nutrition, general and developmental psychology, and sociology.

Beginning with the fall of the junior year and continuing through the fall semester of the senior year, students will join other nursing students in the consortium in residence at the College of St. Catherine. The nursing major is comprised of a sequence of upper division courses representing about one-third of the total degree requirements. There are two thrusts: one is theory, the other is clinical experience. Finally, the last semester of their senior year nurses return to their respective campus for a final "bonding" semester. There they will summarize and tie together their previous work in a "capstone" course.

Library Services

During the first two years of the curriculum, library support will not noticeably change as nursing students will be working on projects no different, or only slightly different from their non-nursing peers. The individual libraries have agreed to maintain a basic collection of journals to support these efforts and some of the titles are specific to the nursing field so that when given a choice of topics a nursing student can select one pertinent to his or her interest. The same is true for monographs. Nursing faculty and librarians will purchase titles to reflect nursing and broader medical concerns to become part of the permanent collection at each library. In particular, these items will emphasize ethical issues.

Providing support for the second part of the curriculum, the three semesters of joint work at St. Catherine will be the main topic of the remainder of this paper, but briefly St. Catherine's will be responsible for providing access to materials required to support the theoretical and clinical aspects of the curriculum.
The final semester at the "home" campus will require each of the libraries to maintain a rather specialized collection of nursing and health journals as well as monographs as the seniors prepare a major paper during their final semester.

Traditions of Library Service

Each of the three colleges had its own tradition of providing library service to its nursing faculty and students and each had its own reason for seeking a different arrangement.

The St. Catherine library provided the "traditional" academic library services for the nursing faculty and students: an active "reserve" section, materials selection and processing, periodicals, audio-visual materials and reference services, including on-line searching.

The materials budget is administered by the library faculty. Specific amounts are not allocated to departments for either books or periodicals. Rather, faculty from the various departments, including nursing, are encouraged to make purchasing recommendations but all orders are subject to the approval of the librarian head of materials selection.

Nursing students did have direct access to the libraries at their clinical sites but for reference purposes only. There were no borrowing privileges. These arrangements were ordinarily informal.

Prior to the forming of the Intercollegiate Nursing Consortium, St. Olaf College had a contractual relationship with the Metropolitan Medical Center and its Thomas Lowry Library. Metropolitan Medical Center is the major public medical facility in downtown Minneapolis. The Thomas Lowry Library has a 60,000 volume collection and subscribes to over 500 journal titles.

Library services were provided in three ways. A collection was developed and maintained at the main St. Olaf College Library in Northfield; the nursing faculty ordered materials through the library for housing in their offices in Minneapolis, and the faculty and staff had access to the library at the Metropolitan Medical Center.

At the request of nursing faculty, the St. Olaf College library staff purchased nursing materials for the college's Rolvaag Library. The nursing faculty would also select materials and indicate if the item should be sent to their Minneapolis offices.
A general contract between the College and the Medical Center included provision that allowed access to the Medical Center Library but the College was charged on a per-use basis. The obvious effect of the policy was to stimulate "non-conventional" library services. The faculty would secure relevant materials for their students and they would "lend" the material to the students as needed.

These relationships had some negative consequences. Students did not learn how to use the library effectively; they felt less than comfortable asking the Thomas Lowry staff for help knowing they were costing the nursing program extra money, and many materials were lost through the informal lending system. An additional problem was the collection itself. The Lowry Library is primarily concerned with meeting the needs of the hospital medical staff, not the materials of specific interest to nurses in training. To acquire more pertinent information, nursing students frequently used the Bio-Medical Library of the University of Minnesota. While they could not sign materials out, they were able to find most of the things they needed there.

Gustavus Adolphus College participated for some thirty years in an agreement with Bethesda Lutheran Medical Center in St. Paul. Nursing students spent their junior and senior years in residence at the Mattson Education Center. There a library was maintained by the Medical Center and supported by student assistants. The Mattson Library served the entire medical staff of the complex as well as the nursing program. Similar to St. Olaf, Gustavus supported the nursing program the first two years by maintaining a support collection at the main library. Collection development was done by the library staff and the nursing faculty. At the Education Center some 5,000 book titles and nearly 175 journal subscriptions were available, along with an A-V facility. Of those, about 1200 of the books and some 25 journal subscriptions were purchased by the college. College nursing faculty at the medical center advised the library staff of needs and yearly a sum of money was made available to become the college's share of the support of the medical library. Services included a smoothly functioning interloan system, a regular shuttle from campus to the Medical Education Center and on-line literature searching done in St. Peter and sent to St. Paul.

This was the arrangement as the program entered the 1980's. The association with the Medical Center had lasted over 30 years. But changes in health service, its cost and its financing were to change the Medical Center's relationship to the Education Center and the library. Increased research by nurses, a reduction in the
comparative use of the library by other departments (hospital, medical staff, family practice and education) caused an imbalance in those receiving library services and those paying for them. The Medical Center requested that an increasing part of the library staff time be paid by the college since nursing students received most of the service provided. This development in no small way contributed to the college's decision to seek a new arrangement to support its nursing program. When others experienced similar constraints, the idea of a consortium was born. Library services to the nursing students in the new arrangement must be looked at in the context of off-campus networking, materials access and delivery and funding.

Twin Cities Library Networks

The delivery of off-campus academic programs in the Twin Cities is facilitated, and perhaps complicated, by the outstanding biomedical libraries in our area and the extensive library networks in place in the area.

The College of St. Catherine is a member of the Twin Cities Biomedical Consortium (TCBC) which was founded in 1973 with the aim of developing a network of Twin Cities biomedical libraries to improve access to information at the local level and to facilitate membership in national consortia. The strongest TCBC program over the years has been its document delivery system. TCBC members provide ILL requests for the other members at no charge. The network has been in place fifteen years and has a proven track record of successful cooperation. However, we were concerned that the Collegiate Nursing program has the potential of exerting new stress on the relationships.

The same economic factors that influenced the development of MINC are at work in the Biomedical library community as well. Some of the hospital libraries are becoming profit centers for their parent institutions. Others are so poorly staffed that any additional use could cause a decrease in the quality of service to their primary clients. Mergers and acquisitions are happening so quickly that the list (see Appendix) of Twin City libraries might already be out-of-date.

A particular challenge for the MINC librarians will be to keep aware and informed of the difficulties that the MINC faculty and students might create for TCBC libraries as they begin their clinical relationships in the fifteen different sites in the Twin Cities area.
Materials Access and Delivery

The St. Catherine Library is the host library for MINC and is responsible for coordinating access to library resources in the Twin Cities and the home campus locations. The MINC libraries are all OCLC participants and we all have On-line Public Access Catalogs (OPAC). As may be expected, we have two different and incompatible systems. As we acquire new materials we are confronted by the problem of how to reflect our holdings in the various databases to insure our users maximum access with minimum difficulties while maintaining our agreements with OCLC and others to fully provide data on our new acquisitions. While both of the OPAC systems have dial-up access, the search software is considerably different requiring library staff and the nursing faculty/students to learn two systems. Additional expenses are also incurred for telecommunications.

Materials access, however, is more than just the technology and procedures. It is also satisfying the user's expectations. The MINC faculty and students have a wide range of expectations for library service. Some of the faculty have worked primarily in a clinical setting and expect information services typically available in a major metropolitan medical setting, i.e., immediate access to a broad range of highly specialized journals and reference sources.

Similarly, during their clinical experiences, the students will be exposed to "real-life" situations where they are introduced to a new setting, given a research problem, and expected to produce results in three to four days. Traditional academic library turn-around times for ILL requests simply are not satisfactory in this setting and yet a college library cannot afford the subscriptions or the space for a collection broad enough to meet the demands of clinical studies. To meet this challenge, the St. Catherine Library faculty will be presenting bibliographic instruction modules in the third year curriculum and will be working closely with the faculty to insure that the required materials are located for the students. All MINC students are eligible for interlibrary loan services through the St. Catherine Library.

The On-line Reference Services Librarian at St. Catherine will also be working with the faculty and students to facilitate access to the appropriate on-line sources. As this paper is written, we are still developing plans to incorporate exposure to on-line searching skills into the nursing curriculum.

The reference staff is also prepared to serve as a
"switching center" for the MINC participants. It is our objective
to help the students learn the "medical information chain" in the
Twin Cities and to make the best possible use of the resources
available. To aid in this process we are developing a handout
with descriptions of the various libraries' hours, collection
strengths and use policies.

Funding

The theoretical basis for MINC funding for library and AV
materials and services was the creation of a centralized MINC
budget supported by equal contributions from the participating
colleges. The book materials budget was established by estimating
the nursing-related expenditures at each of the participating
colleges during the 1986-87 academic year, combining the amount,
and dividing by three. All requests for nursing-related books are
being purchased with MINC funds regardless where the item will be
housed. For example, a nursing-related book that will be housed
at St. Olaf to support the fourth term will be purchased by St.
Catherine staff using MINC funds.

The periodical budget was also developed employing the basic
funding principles, except that each of the institutions is
continuing to support core nursing periodical collections from
their own budgets. The MINC budget will cover the expanded
collection housed at St. Catherine.

The remaining funding issues are less easily solved using
the basic formula. Audio-visual support is an area where each of
the colleges has had its own mechanisms for supporting nursing.
All three partners contributed AV hardware and software to the
Consortium in the beginning. St. Catherine's has a strong
centralized AV department that serves the entire college. As the
Consortium continues to develop its curriculum and as more
sophisticated demands are made for interactive video and other
computer-AV blended media, it will be a challenge for the host
college to accommodate the nursing department's needs.

More difficult funding questions revolve around the funding
of library services such as; staffing and maintaining the reserve
collection, delivering reference services including maintaining
the on-line search service, providing interlibrary loan services
and providing access to the on-line catalogs. St. Catherine is
currently preparing a study to attempt to identify the cost
factors in delivering these services that could be used in
determining appropriate charges to MINC. For the first year,
these services will be covered as part of a per-student "service
fee." A formula can be developed but we must wait until experience
provides the actual costs.

Conclusion

This paper sought to explain the circumstances in which traditional residential liberal arts colleges concluded an agreement that required non-traditional off-campus library services. This anomalous situation suggested new arrangements and new means of funding that service as well as coordination of still another set of off-campus resources. This is by no means the definitive account, only the planning, as the program begins in September 1988.
Appendix

Twin Cities Biomedical Libraries

Minneapolis

*Abbott-Northwestern Hospital Corp
  4,000 books; 700 periodical subscriptions
*Hennepin County Medical Center, Thomas Lowry Library
  60,000 books; 520 periodicals
International Diabetes Center Library
  50 periodicals
*Minnesota Dept. of Health
  6,000 books; 300 periodicals
*Mount Sinai Hospital
  2,150 books; 178 periodicals
*North Memorial Medical Center
  2,900 books; 435 periodicals
*Park Nicollet Medical Foundation
  6,500 books; 160 periodicals
*Riverside Medical Center Library
  2,500 books; 170 periodicals
University of Minnesota, Bio-Medical Library
  334,354 books; 3,985 periodicals
*Veterans Administration Library
  15,000 books; 500 periodicals

St. Paul

*Bethesda Lutheran Medical Center
  1,980 books; 208 periodicals
*Boeckmann Library (serving United Hospitals and Ramsey
  County Medical Society)
  50,000 books; 400 periodicals
*Children's Hospital Pediatric Library
  1,000 books; 95 periodicals
Gillette Children's Hospital
  3,000 books; 48 periodicals
*Midway Hospital
  (holdings not listed)
*St. John's Hospital
  1,150 books; 150 periodicals
*St. Joseph's Hospital
  500 books; 2,300 periodicals
*St. Paul Ramsey Medical Center
  4,000 vols; 390 periodicals
Appendix (cont.)

Other Twin City Locations
*Fairview-Southdale Hospital
  1,000 vols; 1,100 periodicals
*Hazelden Foundation
  (holdings not listed)
*Mercy Medical Center
  750 books; 150 periodicals
*Methodist Hospital
  2,000 books; 150 periodicals
*Northwestern College of Chiropractic
  8,936 books; 253 periodicals
*Unity Medical Center
  500 vols; 750 periodicals

* Member: Twin Cities Bio-Medical Consortium
  (Source: American Library Directory, 1987-88)
Off-campus Library Services to Graduate Students

Marianne D. Hageman

College of St. Thomas

There are three cardboard boxes in the office of the College of St. Thomas's reference/extension librarian, one for each off-campus library collection. Two books and some photocopied articles are on the desk, pending notification of the requestors and distribution to the appropriate box. Last night's requests and pending reference questions are at the top of the IMPORTANT folder, and there are notes to go over for Tuesday's bibliographic instruction class. Time to go; where are the car keys?

St. Thomas's extension library program is a collage of services and systems coordinated by a part-time extension librarian. While faculty, students, staff and some small businesses are customers, graduate students are the greatest in number. Highly motivated, these users have needs for specialized materials and information and are persistent enough to hunt for them. Their classes are some distance from the college's O'Shaughnessy Library; and while some have access to company or large public libraries, many find the convenience and skilled assistance found in the off-campus library a great help. There are scheduled hours at two sites and telephone access for all three.

The College of St. Thomas is the largest independent college in Minnesota. It is a private, coeducational, Catholic, liberal arts college with its main campus located in St. Paul. The college's expansion into extension campuses began with a donation of property. In 1981 the Gainey Foundation gave the college the home of the late Daniel C. Gainey (president of Jostens, Inc.) near Owatonna, seventy miles from the college. With the help of additional financial grants, the college converted the property into a conference center, which opened in 1982 (Connors, 1986; Carrigan, 1986).

In 1983 the Peavey Company donated its technical center in Chaska, Minnesota (Connors, 1986). In fall 1984 the college began offering undergraduate and graduate courses there as well as workshops (Henry, 1987). The administrators of the MBA program and the library staff saw the need to provide library services to faculty and students at the Peavey Center and to develop a collection onsite (K. Ozolins, personal communication, May 9, 1988). Temporarily, two rooms held a library/resource center to
support these programs, materials then consisting primarily of
duplicate copies or older editions of reference materials and
magazines. At first, a liaison librarian was appointed (T.
Plomondon, personal communication, November 29, 1984), then a
part-time extension librarian was hired in December 1984 (K.
Ozolins, personal communication, December 20, 1984).

In early 1985 a library and study room were developed,
materials and periodicals were purchased, and faculty and students
were informed of the library's service. During the spring
semester, classes at the Gainey Conference Center requested
library service; with faculty support, a site was selected and a
small collection was developed (College of St. Thomas, 1985).

That summer the college began leasing the fourth floor of
the Hazeltine Gates building in Chaska for the St. Thomas
Enterprise Center, which serves as an incubator for small
businesses (Staff, 1986). A small collection of books and
periodicals for browsing was acquired for this program. In
January 1986 the college purchased the building, and in 1987 the
educational programs, including the library (which absorbed the
Enterprise Center collection), were moved to this location; it was
formally renamed the Chaska Education Center.

In 1986 the college planned a third extension, to downtown
Minneapolis. A feasibility study had shown strong interest in
having the college offer courses downtown, particularly
undergraduate business and computer science and graduate MBA
programs (Pregont, 1986). The current space, in a remodeled
former department store, is leased until August 1990. While the
nearby Minneapolis Public Library offered introductory
orientations and the use privileges available to all downtowners
(J. Kimbrough, personal communication, October 29, 1986), it was
made clear that this would be no substitute for St. Thomas's own
library services (E.B. Fugazzi, personal communication, December
22, 1986). A combination library/study room was designed, not far
from most classrooms.

Instead of expanding the responsibilities of the extension
librarian, a committee of main campus librarians (two of whom had
previously held the extension position) recommended periodicals
and general reference books for Minneapolis under the established
budget. One of these librarians acted as library liaison (but not
visiting the campus) during the first year. Materials were
delivered by a daily courier, and onsite staff handled routine
maintenance and recommended additional purchases. For the 1988
spring semester, the extension librarian position was increased to
coordinate library services at Minneapolis as well as Chaska and
Owatonna.

Both Chaska and Owatonna have evolved into campuses for graduate study. St. Thomas's Graduate Programs in Management have been active since 1974: in addition to the MBA and its several concentrations, there are programs for software design and development, manufacturing systems engineering, and business communication. A majority of Minneapolis classes are also in management, although there are several "New College" classes for undergraduates, also largely business-related. Thus the three campuses' collections center around business, with individual specialties.

Many graduate students are employed by smaller companies. While employees at large corporations such as 3M or Honeywell may have experience with corporate libraries, those from smaller companies have no such resource. Their undergraduate library experience, if any, is behind them, and they have been dependent on colleagues or possibly public libraries for information. For their professions and for classwork, they need many kinds of business information; for example, statistics, demographics, market share, competitor information, advertising rates, how to start and operate a small business. While their needs may be complex, they are often unfamiliar with what is available.

The information needs of St. Thomas's extension students, faculty, and staff include materials and information delivered in a timely manner. This is accomplished by separate library collections and particularly by the extension librarian. She is the intermediary between extension users and the information resources accessible through the college's library; she can be consulted by those planning and participating in the extension program. An extension librarian is an effective, visible sign of the college's commitment to off-campus users (Rearden & Lasky, 1980; Mount & Turple, 1980).

Obviously, extension library services would be impossible without the support of the main campus library. All materials are available to off-campus users: circulating materials can be acquired through the librarian or in person; reference materials can be used onsite, consulted by the librarian for specific requests, or copied within reason. Articles can be copied from the library's periodicals. Since the extension librarian is a member of the reference department and works on main campus several hours a week, she keeps current with the main library's activities as well as working with off-campus collections.

To obtain materials from other collections, the extension
librarian has several alternatives. The main St. Thomas and extension collections are one option. Secondly, the St. Thomas library belongs to a consortium of private college/research libraries known as CLIC (Cooperating Libraries in Consortium). CLIC members routinely share library materials. Other options include Minitex, the regional ILL exchange, and OCLC, for materials not otherwise available and for verification. Each off-campus location stocks its own color-coded request forms (gold for Chaska, pink for Minneapolis, and purple for Owatonna), so requests are readily distinguished.

The CLIC catalog is available at each campus. It had been issued in microfiche as recently as 1985; it is now available on-line as CLICnet. Graduate students, often familiar with computers and terminals from work, respond well to an automated catalog. CLICnet is available through dial-access at Chaska, Minneapolis, and Owatonna as well as from home or office via one's personal computer and modem. CLICnet has been a boon in enabling students to see what is available, at least locally, and it makes them aware of various interlibrary loan possibilities while providing a symbolic supplement of the extension libraries' collections.

Chaska was the first of St. Thomas's extension libraries. It is also the largest, with approximately 250 books, 60 periodical titles, noncurrent copies of indexes such as the Business Periodicals Index, and over 1000 business annual reports. Chaska had about 200 students in the spring 1988 semester, taking eleven courses. The librarian is there two evenings a week, the nights classes are held.

Most Chaska reference titles are older books from the main library: for business, titles, the year-old volume is sent to Chaska when the main campus receives the latest edition; the next year that volume is returned to the main library's reference auxiliary and is replaced by a "new" year-old volume. Current periodicals are kept as space permits; old issues are usually discarded or sent to fill in gaps at the main library. The business annual reports are also year-old editions from the main library: when superseded, these are sent to Owatonna.

The distance of the Chaska campus from the main campus, and its distance from libraries with collections to support student needs, were decisive factors in the development of this extension library. The St. Thomas campus is thirty miles away, and nearby public libraries serve their own clientele. Thus the Chaska library was designed to be relatively large and, to an extent, to function on its own. It operates as a one-person library, with
the librarian handling everything from providing reference service to shelving, initiating interlibrary loan requests to filling out book orders. The main library's technical services department orders and processes all extension materials, but the extension librarian requests new items, delivers them, and examines them as they are added to the collection. Periodicals in particular must be checked for missing issues; suppliers have difficulty understanding these are not just "multiple copies."

In 1987 Chaska Campus moved to its present location, and the library gained new users: the tenants of the college's small business incubator. Their use is sporadic, and the library's hours are established for the convenience of evening student/faculty users, but several requests have been handled successfully.

The Owatonna facility is the smallest: 150 books, 20 subscriptions; its campus has the smallest enrollment, just over 100 students in spring 1988, taking ten classes. While at Chaska and Minneapolis classes are offered Monday through Thursday evenings, Owatonna has classes on Saturdays. Because of its distance from the St. Thomas campus, the librarian seldom gets there, although she oversees the program at a distance. It is the MBA coordinator who is responsible for the library onsite and aids students searching for information. Requests for materials and complicated reference questions are referred to the extension librarian via phone or the weekly courier. Owatonna's subscriptions, new books, and loaned materials also travel by courier to the campus. "Third-generation" business annual reports are sent there, and a few reference books are purchased.

The Minneapolis campus has a collection slightly larger (170 books, 30 subscriptions) but the largest student body of the three: in forty classes, there were 600 students in spring 1988, the great majority graduate students. Several factors affect the size of the Minneapolis library: the proximity of the main campus (seven miles away); the main Minneapolis Public Library (one block away, it has a large business collection); the large financial commitment to the Chaska library.

At first, library services were limited to onsite materials and written requests. However, for the spring 1988 semester the extension librarian was given additional hours to cover the Minneapolis campus. After an interesting start (no desk, no telephone, little visibility) the librarian established a presence; there have been several class presentations, on-line catalog demonstrations, and a developing user base. As in Chaska, the librarian was onsite two evenings per week. By the end of
May, it was decided that the extension position would keep the additional hours for the immediate future.

Each location has its own books and periodicals budget, with amounts depending on the state and future development of each. The FY 1988 budget for extension library materials was $14,500. The funds come out of the overall library budget, but they are clearly earmarked. Also, use statistics are kept for each location. From the beginning, they have formed part of the extension libraries section of the O'Shaughnessy Library's annual report; currently, monthly reports are prepared to document continued use and the demand for library services to the administration.

While statistics have not been kept consistently and are only a small sample, some observations can be made. The number of users more than doubled in spring 1987 when the Chaska library was near the classrooms; conversely it was cut in half when the library moved again. Use has remained constant since then. Photocopy requests have increased, particularly since the librarian has learned the interests of various users and watches for relevant articles. Gainey campus requests have doubled since the new MBA coordinator has promoted service. While it is too soon to judge the Minneapolis campus, photocopy requests this semester were twice those of Chaska's, and many class presentations were done.

Library services are promoted in various ways. The physical presence of the librarian, both in Chaska and now in Minneapolis, as well as the collections themselves are important, but not enough. The librarian publishes a monthly newsletter/acquisitions list/calendar, "The Library Link," highlighting new items while listing the librarian's schedule and phone numbers. At the beginning of each semester, memos are provided for faculty and students giving a brief outline of available services and listings of campus periodicals. A new publication serves as an SDI listing for users. The librarian scans incoming periodicals for articles and topics of interest, printing and distributing this list a few times each semester.

While the graduate business administrators greatly support the library, faculty and staff use, and their informing students of the values of library services, are equally important. Making faculty contact is crucial; many faculty members, once off-campus, expect little support and appreciate library access. Other faculty are already aware of the library: St. Thomas undergraduate classes often have a library component, and this is being developed for graduate programs. Doing class presentations
tailored to the needs of a particular class also promotes service: speaking to a class can alert potential users to library services.

The challenges of the position are many. First, it is a part-time position; this means that, even more so than for a full-time librarian, there is never enough time to do it all. Projects still pending after several months are a policy statement for Minneapolis and an extension procedures manual. A significant backlog has developed this year with the addition of Minneapolis and the rearranging of hours at various locations. Automation of extension library functions has been limited by insufficient time and infrequent access to a personal computer.

Scheduling is a challenge each month, with two onsite locations to include, being part of the reference desk rotation (including some weekends), as well as additional items such as class presentations and tours. The work is scheduled mostly afternoons and evenings, to coincide with peak use at the off-campus sites while allowing some time each day to work at the main campus.

Spending time traveling makes one more difficult to reach and takes up time (45 minutes to drive to Chaska, more during rush hour.) And extension faculty and students move between campuses; until the position included Minneapolis coverage, it was frustrating to see favorite users move out of one's scope. Now it's often a matter of keeping track of who's where, this semester.

People are not the only "portable" components of the off-campus program. The Chaska library itself has moved, several times. It began in the Peavey Center, first in two temporary rooms, then in rather spacious accommodations on the third floor (which was a problem, since the classrooms were on the second floor.) Later, the center rented our the former study room to a business tenant and the library/study space was confined to one room. In early 1987, the library was moved to the main floor so that the entire third floor could be rented. That summer, the entire campus moved to another building, and the library was relocated again.

Unfortunately, each library move has meant a loss of floor space, shelf space, and study space. After two moves in six months, library shelf space was cut almost in half. The needs of the library have not been considered in any of these moves: in all but one location, the library has been situated one floor away from most or all of the classrooms. Use and reference questions increased dramatically during spring 1987, largely due to the
library's proximity to the classrooms. Several students had scarcely been aware of its existence. After the latest move away from the classrooms, use dropped significantly. Library visibility has been crippled by its location "off the beaten track."

Another issue of the extension libraries is one of access versus security. The Chaska library is usually locked when the librarian is not there; access by small businesses is hindered, but not impossible since they can ask permission to use it during the day. At Owatonna, the books are on locked shelves; the room is open but watched so possible theft is reduced. In Minneapolis, where the library is the study room, it is unlocked at all times. Materials checkout depends on the honor system: a recent inventory found several volumes missing. Library personnel are reluctant to acquire many expensive items while there is no safeguard against library theft.

The Minneapolis library is extremely small for its multiple uses. Students pack the room on class nights, and the needs for quiet study can hinder the conversation required for reference service. More than half the space is devoted to study tables and carrels, and there is minimal room for adding to the collection. Future Minneapolis campus plans should include increased space for both the library and an additional study room.

Several elements combine to make St. Thomas's extension library services effective. One of these is the extension librarian: having one person whose primary responsibility is off-campus library services means continuous, effective service (Johnson, 1984). Separate collections at each site provide ready reference and basic material; an automated catalog makes users aware of other resources. Interlibrary loan "supplements" the core collections. The support of faculty and administrators is crucial, both as an ongoing commitment and as a means to inform potential student users. Promoting library services off-campus is uniquely challenging, combining elements of special, one-person, and academic librarianship.

As users, graduate students are highly motivated but too often unaware of the information resources available. Faculty members, met with prompt service, can become regular customers. Sharing the travel, scheduling, and locational difficulties with faculty and students gives the extension librarian a spirit of camaraderie which, with prompt, personalized service, promotes good relationships with users at remote locations.

Recently, the college has issued statements on the future of
St. Thomas. Two thousand students are projected to be studying at campuses other than St. Paul, and the Minneapolis Campus will become "a center for adult education." Clearly, the college expects extension programs to expand. With persistent demands for service, and the support of graduate faculty and library staff, there will continue to be off-campus library services for St. Thomas's extension programs.
References


Andragogy and the Off-campus Librarian

Mary Jane Hamilton

Ardmore, Oklahoma, Higher Education Center

One can hardly open a professional journal in education without encountering an article concerning the adult student, the part-time student, or the changing populations on and off campuses. Conferences on the adult learner are scheduled throughout the nation. As librarians meet to discuss and evaluate experiences, delivery services, and philosophies of the off-campus student, it is appropriate to examine how adults learn for its relevance to library development. This paper applies one such theory—"andragogy"—to the library.

Definition and History

Authors have defined andragogy as either a philosophy, theory, or method of learning or teaching. For example, "Andragogy is the science of teaching adults" (Kelly, 1986, p. 18) or "Andragogy [is] a problem-centered approach for adult learning that takes learners' needs and interests into account" (Dejnozka, 1982, p. 31).

Malcolm S. Knowles, professor emeritus of adult and community college education at North Carolina State University, chronicles the development of his writings and philosophies of andragogy in the first chapter of Andragogy in Action. From 1946 through graduate school at the University of Chicago, study with Cyril Houle, work in the Adult Education Association and beginning the graduate program in adult education at Boston University, Knowles' theories and observations of how adults learn took form. Although the term andragogy had been used in Europe as early as 1833 to describe the educational theory of Plato and was used frequently in Yugoslavia and France between the years of 1921 through the 1960s, Knowles is generally credited with the popularization of the concept of andragogy in this country.

"Originally," he states, "I defined andragogy as the art and science of helping adults learn, in contrast to pedagogy as the art and science of teaching children...I am at the point now of seeing that andragogy is simply another model of assumptions about learners to be used alongside the pedagogical model of assumptions...testing...as to their 'fit' with particular situations" (Knowles, 1980, p.43).
The volume of literature published regarding andragogy has increased in the years since Knowles began writing. An ERIC search on Silver Platter's Compact Disk Program showed only seventeen entries on the archival disk of 1966-1974. The numbers increased during the 1976-1982 years to 46 and the current 1983-1987 disk shows 90 references. A number of articles have appeared in the 1980's which chronicle the history of andragogical theory in this country (Davenport, 1984, 1985), (Kelly, 1986), (Boyer, 1984), (Brockett, 1984), (Heimstra, 1985). Interestingly enough, however, although multiple references are found in ERIC, Psychological Abstracts, Social Work Abstracts, Social SciSearch, Dissertation Abstracts, and Books in Print databases, only one reference is found in LISA or Information Science Abstracts. This was the Jean Sheridan article in 1986.

Is there value for the librarian in the study of adult learning theory? Are there applications which can be made in the development of off-campus library services? These are the questions this paper seeks to explore.

Contrasts of Pedagogy and Andragogy

The literature is composed of discussion, application, and criticism of the models of andragogy. Davenport asks, "Is it a legitimate tool or a bandwagon...?" (Davenport, 1984). He cites authorities in the field of adult education who disagree with the dichotomous concept of andragogy/pedagogy advanced by Knowles. It is not the purpose of this paper to enter that debate, but rather to "test the assumptions with respect to their 'fit'" to library situations.

What is this dichotomy of which Davenport speaks? No paper on andragogy would be complete without an accompanying chart contrasting the basic assumptions of the andragogical and pedagogical models of learning.

The Andragogical Model of Assumptions

<table>
<thead>
<tr>
<th>THE LEARNER'S</th>
<th>PEDAGOGICAL</th>
<th>ANDRAGOGICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Need to Know</td>
<td>Learners must learn what the teacher teaches.</td>
<td>Adults need to know why they need to learn before undertaking to learn it.</td>
</tr>
<tr>
<td>THE LEARNER'S</td>
<td>PEDAGOGICAL</td>
<td>ANDRAGOGICAL</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>2. Self-Concept</td>
<td>Learner is dependent upon the teacher for direction.</td>
<td>Learners are self-directing, responsible for their own decisions.</td>
</tr>
<tr>
<td>3. Role of Experience</td>
<td>The teacher's or textbook author's experiences are the primary resources of learning.</td>
<td>Adults enter an educational setting with experiences which are the primary resources of learning.</td>
</tr>
<tr>
<td>4. Readiness to Learn</td>
<td>Learners become ready to learn what the teacher tells them they must learn.</td>
<td>Adults become ready to learn those things they need to know to be able to cope with their real-life situations.</td>
</tr>
<tr>
<td>5. Orientation to Learning</td>
<td>Learners have a subject-centered orientation to learning.</td>
<td>Learners have a task-or problem-centered orientation to learning.</td>
</tr>
<tr>
<td>6. Motivation</td>
<td>Learners are motivated by external motivators.</td>
<td>Learners are motivated primarily by internal motivators.</td>
</tr>
</tbody>
</table>


Bibliographic Instruction, Staff Development, Reference Services

The most obvious application of Knowles' concepts is in bibliographic instruction and staff development—uncontested learning activities. When dealing with students in an off-campus setting, instruction in library use often takes a different turn. The issue becomes not "How do we teach them to use the library?" but "How do we deliver information effectively and efficiently?" Regardless of the type of library (public, academic, school, or special) or its location (on or off campus), this is the most basic question to ask anyway! The follow-up question must then be addressed, "Does library instruction improve the delivery of information?"
Ardmore Higher Education Center is an off-campus location to which three different colleges and universities bring courses from freshman through graduate levels. The population attending is primarily adult students taking three to six hours of classes in the evening. Bibliographic instruction at the "Center" has been most successful when "marketed" to individual instructors. A written memo is followed by individual visits offering research assistance instruction for particular assignments or educational objectives. An attempt is made to schedule "library orientation" time for the class in the library. Each preparation is specific for the needs of a particular audience. Discussions, lectures, handouts, demonstrations, and hands-on computer searching provide the format. The universities of Wyoming and South Carolina also utilize this format (Johnson, 1987; Ferguson, 1986). Such sessions are not as easy to prepare as a traditional lecture on bibliographies and indexes might be. Sheridan warns that in problem-solving instruction, "...the librarian cannot cover as much material as in a traditional presentation and that the problem-solving approach requires a high level of teaching ability and confidence." (Sheridan, 1986, p. 163).

What is the learner's need to know or the orientation to and readiness to learn? "Because the ERIC on CD-ROM will save you so much time in assembling the bibliography for that graduate paper in education; because searching ABI-INFORM for companies that have used the "Just In Time" concept will get rid of a lot of the extra articles that deal with quality control in general and will give you a summary, not just a title of articles; because I may be on vacation the next time you come in; because tomorrow your pediatrician may prescribe an allergy medicine for your child and you'll be able to read about possible side effects in this book." Covering such "reasons" in introductory remarks is essential in bibliographic instruction.

The Center does not require that the user know how to use the library. After a reference interview, the librarian will conduct a search (both on-line and manually), will pull materials, will have a bibliography of the search printed, and will even interlibrary loan a couple that look particularly relevant before the student returns to class the next week. But time is always made to discuss with the student what was done, what search terms were entered, what might still be done, and "Why don't you look over this and then maybe we can decide where to go from here." The assumption is always made that the student is the subject area specialist responsible for the choice of materials. In bibliographic instruction, the most effective teacher is the librarian who gains the respect of the adult student by finding the needed information. "Now wait, how did you find that" is a response heard again and again. Adults don't want to waste time
learning something they can't use and it has to be proved to them that knowing how to use the library is going to be worth their time. Once they see it is, they become willing, even eager learners. Could this be an example of when andragogical assumptions 'fit' a situation?

The more-capable peer approach to teaching is especially effective in dealing with adults. As the adult students are more capable in their areas of real estate, banking, teaching, management or day care, the librarian is more capable in information retrieval under the structure of the library. However, the day care worker may know more about locating some government regulations and the teacher is more effective in locating classroom activities. The librarian can also learn much from these "more-capable" peers in both subject matter and methods of information retrieval in the world outside the library.

"These differences in experience between children and adults have at least three consequences for learning: 1) adults have more to contribute to the learning of others, for most kinds of learning they are themselves a rich resource for learning; 2) adults have a richer foundation of experience to which to relate new experiences; 3) adults have acquired a larger number of fixed habits and patterns of thought and therefore tend to be less open-minded" (Knowles, 1980, p. 50). Some librarians have found handouts acknowledging particular experiences or situations to be effective tools of instruction (Lutzer, 1981; Payne, 1983). They can acknowledge and suggest new patterns of thought or changing habits in how, for example, to effectively use research time (of which the adult student has so little!)

The librarian can assist the adult to view the library "that is so different from when I was in school" in light of his own experiences. The grocery clerk who can't understand the computerized public access system operates a sophisticated computerized scanning system at his work. Library instruction drawing upon the similarities of the two systems will be more effective than a handout.

Writers in adult education have commented on the phenomenon of the otherwise self-directing adult who becomes "dependent, lacking in self-confidence, and often unmotivated for learning..." upon reentering an educational climate (Wlodkowski, 1985, p. 217). Writing in the Training and Development Journal, Knowles warns HRD professionals, "Most [workers] understand education only in the way they were taught in school: teaching as telling" (Knowles, 1985, p. 24). It's important for librarians to prepare the student for "learner oriented" instruction. "Together we're going to search for the best way to find the information you need
for this assignment..." is a suggested approach. Because of greater accessibility, the librarian is in a unique position to influence through example and practice the changing of such dependent attitudes toward education. Back to School: the College Guide for Adults suggests to the returning adult that "effective use of the library can improve your performance markedly...and save you hundreds of hours of study time...ask a librarian to spend some time with you. It is unlikely that you will be refused since librarians pride themselves (justly) on their service. A helpful librarian is a valuable ally against the oppression of too many papers or projects due at once" (Haponski, 1982, pp. 141-142). The librarian cannot afford to be too busy to take time with off-campus students who are returning to school. Individually and in small groups, "The andragog helps the adult to become more competent..." (Sheridan, 1986, p. 159).

It is somewhat ironic that librarians (as adult learners) demand from "Continuing Education" workshops for themselves a "climate for learning" while they may not demand it for students. Our own professional organization, CLENE, demands workshops focused on the goals and experiences of the attendees. "Elements in maintaining such a climate (for learning) include the institution's assuming responsibility for providing the resources for self-development by self-directed learners" (Stone, 1979, p. 234). Perhaps the time has come to think of bibliographic instruction as "mini-workshops" or training seminars of professionals rather than a course for students.

Mission and Goals of the Library

If the off-campus library exists solely for the purpose of accomplishing the educational objectives of the courses taught at that location, there would be no need for any materials other than those assigned by the instructors or a collection of reserve materials. Each location must look to the students and determine the library's responsibilities to them. At the Ardmore Center it is assumed that, given the opportunity to be so, learners are self-directing individuals, responsible for their own decisions. Thus one of the library's mission responsibilities is phrased: "The library has a responsibility to provide current information necessary for making effective decisions. This current information must be in the areas of ideas and research, events and government, and methodologies and technology." The library assumes the responsibility of making that information which assists the user to become better consumers and decision makers available onsite or accessible through interlibrary loan.

This concept closely approaches the "Lifelong Learner" or "Self-Directed Learner" concept. For the most part, academic
libraries have been content to be research stations and leave to
public libraries the independent adult learner (Birge, 1981;
Donegan, 1982). But as the independent adult learner begins
taking college classes off campus, the distinction blurs between
what is the public and what is the academic library's
responsibility. These adults enter the academic library with the
expectations of service received at the public library and may
enter the public library with the expectations for availability of
materials of the academic library. Many articles presented at
past off-campus library conferences concern the working together
of varying kinds of libraries to meet these "experiences" and
"motivations" of the adult learner. It is interesting to
speculate that the off-campus adult student might be one of the
most influential forces in propelling the academic library to
accept the responsibility of encouraging and developing the
attitudes of library usage for lifelong learning.

Collection Development

Because off-campus library programs tend to be new, the
collection development policies need not be hampered by the
tradition of the on-campus program. There is no need to continue
a subscription to an index just because "we've always had it," or
"what would we do with the old paper ones if we change to on-line
access only?" Using computer assisted searching as a substitute
for expensive paper indexes may make the delivery of information
effective for off-campus classes. Although it's tempting to
choose such technology for its newness and excitement to the
librarian or student, one should remember P. William Summer's
advice..."no amount of technology can help you if you don't have a
clear idea of what you're trying to accomplish" (Summers, 1988, p.
17). The librarian should ask, "What are the materials which will
enable my users to find those things they need to know in order to
cope with their life situation?" It may be that some of those
standard reference materials that all "good" libraries have are
not needed. Use of microcomputer simulation or tutorial programs
may be the best choice of purchase for the library for the nursing
program while the on-campus library does not buy software.
"Self-directivity also means the freedom to choose from among many
learning experiences..." (Mozes, 1982, p. 46). At the Center,
videocassettes are purchased and shelved on the bookshelves along
with the other materials on the subject. They are handled as
information just as printed material is information. A student
can check out "How to Change Your Job to Change Your Life," (a
videocassette), a book on job hunting for professionals, and use
in the computer lab a software program which teaches resume
writing. It would appear, then, that there are aspects of
collection development which 'fit' andragogical assumptions.
Characteristics of the Librarian

Knowles (1980) lists eight characteristics of the effective adult administrator:

1. They have a genuine respect for the intrinsic capacity of adults to be self-directing.

2. They derive their greatest satisfactions as administrators and educators from accomplishment through others.

3. They value the experience of others as a resource for accomplishing both work and learning by themselves and others.

4. They are willing to take risks that are involved in experimenting with new ideas and new approaches, and view failures as things to be learned from rather than defensive about.

5. They have a deep commitment to and skill in the involvement of people in organizational and educational processes.

6. They have a deep faith in the potency of educational processes for contributing to the solution of organizational and societal problems.

7. They are able to establish warm, empathic relationships with people of all sorts; to see the world through their eyes; to be a good listener.

8. They engage in a process of continuing education for themselves.

(pp. 79-80)

Compare these attributes to this description of the off-campus librarian given by Judy Landau and Judith Hunt in The Off-Campus Library Services Conference Proceedings:

The key words for the extension librarian in a cooperative setting are flexibility, adaptability and cooperative ability. The extension librarian functions as the reference, periodical, circulation, and acquisition departments with expertise running the gamut from audio-visual expert to interpreter of instructions on assembling shelving and tables, to self-appointed pick-up and delivery service. The librarian does not function solely as the guardian of resources at the extension library, but incorporates as part of the duties locating and retrieving materials from other sources for faculty as well as students. Due to budget considerations, the librarian developed the art of being a 'bag lady'...when feasible and
appropriate, the librarian provides pick-up and delivery service. The philosophical question is not pondered as to what comprises professionalism. The role of the librarian in a cooperative setting is to support faculty and students in all their endeavors...The librarian is not confined to the boundaries of the library, but should go into the corridors and classrooms introducing one's self and asking if a professor would like a selection of books placed on reserve at the Center. The librarian markets the wares and services of the Library Information Services (pp. 101-102).

The effective librarian embodies the andragogical assumptions.

As a child is not just a miniature adult, the off-campus library is not just a miniature college library. It is developed for a group of users to accomplish a defined goal. Thus the study of adult learning theory, andragogy, can provide the librarian with a philosophical base of program development, a method of teaching, a view of responsibilities, an attitudinal framework, and most of all, a challenge to make library programs and resources the most effective possible for the adult student.
References


Armed Forces Libraries in Adult Education

Katherine J. Harig
Enoch Pratt Free Library

A Brief History of Armed Forces Libraries

The Library War Service in World War I

Armed Forces libraries have been supporting the education needs of United States military personnel since the early eighteen hundreds. Although there were travelling libraries for the troops during the Revolutionary War, the first building devoted solely to a library for the military was surely that of the United States Military Academy at West Point which opened in 1802. This was, and is today, an example of an academic library within the military serving the library needs of the full-time resident students. Each of the service academies has established, in turn, a library which supports the curricula offered there. These libraries give service that is very similar to that given by any large civilian university library and are known throughout the library world for their excellent services and collections.

What is so not well known is the history of library service and education support given by the general libraries in the military. These libraries are located in the continental United States and overseas on Army posts, Air Force bases and Naval Air stations, and have been in operation since before World War I.

It will come as a surprise to most civilian librarians that the library service during World War I, although supported by the military, was planned and staffed in most cases by the American Library Association. The Association was approached by the War Department to establish a Library War Service which it did in 1917 with Dr. Herbert Putnam, Librarian of Congress, as its director. By 1918, through fund raising, book donation drives, and funding from the Carnegie Foundation, the Library War Service was able to construct and stock thirty-six libraries on Army posts in the United States. Since donated books usually were for light reading, 1,700,000 volumes of more technical materials on subjects such as history, navigation, military science, and strategy were purchased. In the camp libraries, the soldiers eagerly prepared by studying subjects that would help them "lick the Kaiser."

Library service was also in evidence at all naval stations and on most ships at sea. They were supported by huge depots such
as the depot at Norfolk, Virginia. At Great Lakes Naval Station, a large training center, sailors were prepared for combat with courses such as communications, electronics, and navigation. In addition, the Navy supported the Library War Service by transporting staff and materials when the Service followed the troops overseas.

Headquarters for the Library War Service was in Paris with a staff of fifty librarians supported by library depots back in the United States. Individual soldiers and sailors could receive a needed book from the Paris headquarters through the mail. The nature of the library service changed and developed as the troops shifted from place to place. One week a camp library might have an infantry unit there, only to be replaced by a cavalry unit the following week with entirely different library needs. The educational needs shifted from materials needed for the understanding and instruction of military subjects by the new recruits to the preparation for a civilian job for soldiers soon to be discharged. Since recuperating soldiers in hospitals needed therapy that only reading could provide, Bibliotherapy developed during this period. When soldiers' minds and bodies began to heal, they needed information to help them re-enter civilian life. The list of courses provided the military were incredibly varied, ranging from a "History of Military Strategy" to "Beginning Animal Husbandry."

The Library War Service continued to support the Army education program in France and Germany after the Armistice in supplying and staffing the Army Expeditionary Forces library in Beaune, and by contributing five hundred book collections to Army education centers. Over seven hundred professional librarians served during the ALA's Library War Service effort in World War I. Although originally only men were allowed to serve, women soon became a large part of the Service.

The experiences of these librarians carried over after the war into their civilian library work. John Jamieson, Robert Ellis, and others have commented that the emphasis on library service to the individual, particularly in adult education in public libraries in the twenties and thirties, can be attributed directly to the experiences gained by the profession during the war. Reader's advisory services, so prevalent during the Depression era, were a direct result of the services developed by the Library War Service. The Army took official control of the library materials and buildings from ALA and established the Army Library Service in June 1921.

After the war, funding dwindled and support for library
service was uneven. Many commanders felt that a magazine collection was sufficient reading material for the peacetime troops. Travelling collections were established to update the library collections in the camps. The Army Air Corps technical libraries were established on most Army Air bases. On large bases there also were general libraries which served the leisure reading and educational needs of the Air Corps staff and their dependants. Langley Air Base had a sophisticated system of libraries including a technical library, a general library, a hospital library, and a delivery service for individuals by means of a library book truck.

Library Service During World War II

Many Armed Forces libraries limped along until 1940. They were, however, in place so that they could be re-activated when hostilities began in 1941. Once again, the public was called upon to donate books for the fighting forces, this time by means of the Victory Book Campaign of 1942 and 1943. The Chicago Public Library alone collected 1,250,000 hardcover volumes to be sent to Army and Navy units. The ingenuity of Armed Forces librarians during World War II was notable. The Armed Forces Editions were produced by the Army to provide light portable reading. The book kit was developed to transport monthly shipments of books and magazines to far flung units overseas. A method of "telescoping" was devised so that libraries could adapt to shifting troop strengths and needs. In many instances, the libraries were established as soon as, if not before, the troops arrived in the area.

It seems ironic, but the greatest part of the Army Library Service effort in Europe did not begin until after V-E Day. The European Theater was flooded with three million troops, who, after the hostilities ended, felt they were stuck in meaningless jobs with little to occupy their time. Over 1,400 soldiers were trained as unit librarians in England, Paris, and later in Oberammergau, Germany. But it was the arrival of the civilian librarians, many of them women, and all of them professionals, who put life into the library program. Since there were few women in many military areas, their presence was welcomed and they were given excellent quarters and treated with great respect. Many librarians were able to take advantage of this status to acquire materials and facilities that other morale staff members were unable to obtain. This was often necessary since book procurement for travelling and hospital collections was the responsibility of the Library Branch Headquarters, while post and base libraries relied for the most part on funding from local commanding officers. This meant it was up to librarians to barter and negotiate for needed services. This is, in most instances, how
needed support is obtained today in Armed Forces libraries.

Service was provided throughout the world where there was the greatest troop strength through post libraries, and to troops in isolated areas by bookmobiles and deposit collections. The conditions in these remote areas were often not ideal. Librarians had to drive their jeeps several hundred miles a week to supply new materials to their deposit sites. The individual libraries were supported by command librarians who provided training and advice in the management of the libraries. Their work held the system together. As late as 1947, there were 400 library facilities in Europe, with educational support as a large part of their mission.

Combat Library Service in Korea and Vietnam

The Korean Conflict saw the build-up of the facilities and staff of the Pacific Theater, which had been developed during World War II. Such facilities as the Library Service Depot at Clark Air Force Base in the Philippines and the Japan Library Depot enabled the Armed Forces libraries of the Pacific to obtain needed materials without having to rely on lengthy Stateside supply lines. The depots provided monthly book kits, magazines, publicity materials, reference support and interlibrary loan service. The staff in the depots coordinated the activities in the vast Pacific Theater and oversaw the construction and establishment of libraries, travelling collections, and general library service in Korea. The efficiency with which the library staff worked enabled libraries to be constructed, stocked, and staffed in little more than a week's time. Many of the libraries had large reference collections to support the technical work of the military personnel stationed there as well as the educational and recreational needs of the soldiers.

The work of Armed Forces librarians, many of whom were women, in the combat areas of Korea and Vietnam has hardly been reported in the library press. These librarian, all of whom had volunteered for this duty, worked jointly, and many times alone, to provide services to remote sites wherever they were needed, often under primitive conditions. They delivered books and other materials, such as audio cassettes and tapes, to isolated areas by helicopter, plane, or jeep, and went where few other women were allowed to go. In Saigon, the library staff witnessed bombing attacks which destroyed their library. The local Vietnamese were so frightened of the ghosts of those who died there that they refused to return to work once the library was repaired. The story of the combat librarians is a fascinating chapter in library history.
Armed Forces Libraries Today

Today, the Department of Defense provides library service in 1058 general, medical, technical and academic libraries: 826 located in the United States and 232 located overseas. Most of the overseas libraries are general libraries servicing military personnel and their families. The chart below shows a distribution of these libraries.

**ARMED FORCES LIBRARIES IN THE DEPARTMENT OF DEFENSE**

<table>
<thead>
<tr>
<th>Library Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARMY--DOMESTIC</td>
<td>415</td>
</tr>
<tr>
<td>ARMY--OVERSEAS</td>
<td>133</td>
</tr>
<tr>
<td>AIR FORCE--DOMESTIC</td>
<td>154</td>
</tr>
<tr>
<td>AIR FORCE--OVERSEAS</td>
<td>47</td>
</tr>
<tr>
<td>NAVY--DOMESTIC</td>
<td>235</td>
</tr>
<tr>
<td>NAVY--OVERSEAS</td>
<td>49</td>
</tr>
<tr>
<td>MARINE CORPS--DOMESTIC</td>
<td>22</td>
</tr>
<tr>
<td>MARINE CORPS--OVERSEAS</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL ARMED FORCES LIBRARIES 1058**

Education in the Armed Forces

It is well known that the United States military has one of the most varied and intricate systems of education in the world. Since World War II this network has provided technical education for enlisted personnel as well as advanced graduate work for general staff officers. The military has also been at the forefront in educational research and development, utilizing such technology as laser discs, computers, video simulation and satellites to transmit courses to its personnel. The military pioneered and perfected the use of correspondence courses to train and educate personnel in remote sites and in combat situations. The Armed Forces network of education centers provides skilled professional counselors which coordinate and help plan the educational development of the personnel they serve.

In recent years, the problem of illiteracy has been tackled by the military using the methods developed by such educators as Thomas Sticht and Thomas Duffy. From the early fifties, education centers have been providing classes to enable personnel to obtain their High School Equivalency Certificate or GED. College courses are taught in a variety of ways from formal classes with an instructor ashore, and aboard ship by means of video tape and computer assisted instruction (CAI) and through correspondence work. A vast system of civilian sponsoring institutions are
involved in this course delivery. On some larger posts, graduate work can be pursued and advanced degrees are granted. Most of these formal courses are supported by the institutions' own system of supplying readings and texts.

It is the area of off-duty education that the general Armed Forces libraries are asked to support. These courses are often taken as part of a degree program, but may be simply taken for enjoyment or to better chances for a promotion or a civilian job after leaving the military. Major military installations have resources to support such courses which may be offered by as many as ten different civilian institutions. But, as we shall see, the library support for such courses is uneven and needs to be further supplemented by the institutions themselves, especially in isolated areas.

The 1987 Survey of Armed Forces Libraries

In preparation for writing a book on the subject of Armed Forces Libraries (which is scheduled for publication by The Shoestring Press in 1989), I discovered that little was written about the subject. A literature search turned up a few resources such as those by Koch (1919), Jamieson (1950), Young (1981) and Cole (1984), as well as three helpful theses by Gilbert (1961), Stillman (1966), and Montondo (1969). Recent library history is largely undocumented except in annual reports. Certainly no survey of the activities of the libraries in the four branches of service had been attempted. I therefore decided that a small survey and set of interviews were necessary for me to bring the present picture into focus.

In the spring of 1987, I devised a survey based to a large extent on a survey mailed to 240 Army librarians by Margaret Montondo under the auspices of the Army Recreation and Education Director in February 1966. The 1987 survey (See Appendix) was mailed on May 15, 1987 to 350 Army, Air Force, Navy, and Marine Corps librarians stationed in the United States and overseas. By June 1987, 114 usable responses had been received, fifty-eight from the Army, thirty-five from the Air Force, nineteen from the Navy, and one from the Marine Corps. This resulted in a 33% response rate, not quite as impressive as the 80% response rate of the Montondo survey, whose response, however, was mandatory. Responses came from thirty-two states and Puerto Rico and from nine countries including Germany (21), Korea (4), Japan (2), Italy (2), Turkey (2), Great Britain (2), Greece (1), the Philippines (1), and Cuba (1). I was interested in discovering more about the role of the Armed Forces librarians in supporting adult education and the resources and training these librarians need to accomplish
this task.

Since the thrust of the survey was to gauge library support for adult education it was important to show the relationship between the librarian and the local Education Director. Survey results showed that 95.45% of the librarians reported that there was an Education Officer on their post, base or naval station. Only 80% of the librarians had some contact with their Education Officer. Of this number, 28.8% had contact only when necessary, or less than once every semester. Of those responding, 91.8% had courses provided by institutions on their post.

Providing orientation and bibliographic instruction is an excellent way of cooperation with on-post course instructors. Although such orientation classes were in greater demand in 1987 than in 1966, the 1987 librarians usually provided them only on demand and not on their own initiative as had the 1966 Army librarians.

Sufficiency of library holdings to support adult education was surveyed in both 1966 and 1987. Of the 1987 responses, 53.7% replied that their library holdings were sufficient versus 58.6% from 1966. The "insufficient" rate was also higher in 1987 (25.9% vs. 22.6%).

Many factors contribute to the ability of Armed Forces librarians to provide timely interlibrary loan requests. The rising availability of databases, union catalogs and network to verify and search for these requests exists as it did in 1966, but their use is uneven. In Europe, the Army is developing with GEAC a computer network called PALS (Patron Oriented Automated Library System) which will eventually enable all American libraries in Europe to link their holdings, provide electronic mail service, and obtain needed materials quickly through interlibrary loan. The system has been installed in most Army libraries in Germany and the Benelux. It is totally operational in Heidelberg, Frankfurt, Stuttgart, and in Belgium. In the States, FEDLINK provides a hook-up for federal library resources for many libraries. However, despite these accomplishments, as many as 31.9% of Stateside librarians reported that they had no direct computer access to databases in 1987. Of those that had such access, this shows a drop of 7.5% over those of the Army librarians in 1966. Only 26.6% of the 1987 group had direct access to OCLC (On-line Computer Library Catalog) to verify library holdings and cataloging records. This shows that many individual Armed Forces librarians are well behind their civilian colleagues in access to technology.
Both the 1966 and 1987 surveys asked whether the libraries received financial support from those institutions offering local courses to their military personnel. In 1966, 88.4% of overseas libraries and 6.5% of the Stateside libraries received support from such institutions. The 1987 figures were much lower. Only 46.3% of all librarians reported that their libraries received money, staff or library materials from sponsoring institutions. Several librarians reported that their libraries had signed Memoranda of Understanding with sponsoring institutions providing local courses. The state of Washington has recently investigated funding for Armed Forces library support by sponsoring institutions. Their 1987 report gives recommendations and areas for further study.

Heavy use of journals, databases and interlibrary loan services by off-duty students seems to show that sponsoring institutions should look carefully to their obligations to provide library support wherever their courses are offered. This obligation seems unclear in the military at present, but institutions should at least examine the options to provide needed support which most assuredly would result in a better educational experience for those who attend their courses in military installations worldwide.

One of the easiest methods for instructors and librarians to cooperate is the sharing of syllabi in a timely manner, and yet in the 1987 survey, 52.3 percent of the librarians "hardly ever" were shown copies of syllabi related to currently offered courses. Only 33.3% said they received such information "sometimes." When given such advance information, 37.8% of librarians were able to order materials to support such courses, while 27.9% reported they obtained the materials through interlibrary loan. However, of those responding, 22.5% said they were unable to obtain such course materials due to budget restraints.

The librarians surveyed in 1987 were asked an open-ended question of what one factor would increase their ability to provide better support for education. It came as no surprise that 31.3% of the librarians felt that a better budget was their first priority. Significantly, 26.5% mentioned better communication and coordination among the Education Center, the instructors and the library would result in better library service. Although it isn't always possible, the notion that instructors should be aware of the resources of the local library when creating required reading lists and assignments always is a logical suggestion. Other factors mentioned were library orientation classes for new students, feedback and advance notice of assignments, more staff, extended library hours, more space and more quiet study areas,
access to databases, financial support from institutions offering courses, faster procurement, and quicker interlibrary loan service.

All of the questions in the 1987 survey shed some light on the provision of library service for adult education. I will briefly mention the results of several key questions in the second part of the survey. Although 67.9% of the librarians responding to the 1987 survey obtained materials for adult education students, they did so only when requested by the students and not on their own initiative. From my own experience as a public librarian, most civilian librarians will offer interlibrary loan service whenever they feel that it is the best way of filling a patron's needs and not only when requested to do so by the patron. Of the librarians responding positively to the questions, 46.6% said they requested more than five interlibrary loans a week. Still, this average seems lower than that requested in civilian libraries. It needs to be further explored why so few Armed Forces libraries rely on interlibrary loan to fill patrons' needs. The factors of distance and lack of available databases to verify materials could be restricting librarians from offering such services.

The two most interesting results of the 1987 survey came in the responses to questions concerning training in adult learning theory and the role of the librarian as an education "mentor." Sixty-six of the librarians said they had not received any training in adult learning theory or adult education and the same number said they would like to take such training. Of those remaining, 27.35% said they had sufficient training in this area.

It was a special interest of mine to explore the role of the librarian as educational "mentor" since I had felt it was a major and enjoyable part of my role as an Army librarian stationed in Germany from 1971-1974. Of those responding, 87.62% assumed this role with their adult patrons. Thirty-seven percent of those said they assumed this role "often" and presumably felt comfortable in doing so. Many librarians are aware of how time-consuming such a role can be when asked to be an educational advisor and guide perhaps over a long period of time. But librarians are often asked to assume such a role by patrons, particularly when isolated from other resources as many military personnel are. As a group, military librarians seem to be comfortable with this and many additional roles they are asked to assume during their career. Many fill the role of confidant and advisor with those who find themselves a long way from home, family and friends. They come by such a role historically as we have seen when the morale aspect of librarians in camps was nearly as important as their library
duties.

These courageous and imaginative librarians are providing library service today, here and abroad, perhaps not in combat situations as in Korea and Vietnam, but often isolated from resources and communication with other professional librarians. They need the support of politicians, educators and fellow librarians as they face the changes imposed on them by the phenomena of "contracting out" of library services by commercial firms, the threat to professional standards by the Office of Personnel Management and the pressing needs for expensive technology in an era of heavy defense budget cuts. These libraries should be recognized for their accomplishments and given the full support of all civilian librarians.
Selected Resources


Recent Armed Forces library statistics were taken from *The Directory of Federal Libraries* (Phoenix: The Oryx Press, 1987).


A more complete treatment of the subject of Armed Forces Libraries in Adult Education and exhaustive bibliography can be found in Katherine J. Harig, *Libraries, the Military, and Civilian Life* to be published by the Shoestring Press in early 1989.
Appendix

1. Major Command

2. Is there an Education Center and Education Officer on post?
   
   YES, on my post ___  YES, on a post nearby ___
   NO ___

3. How often do you have contact with the Education Officer?
   
   Every week ___  Only when necessary ___
   Once a semester ___  Hardly ever ___

4. Are on-post courses conducted at your installation?
   
   YES ___  NO ___

5. What is the composition of the post library system?
   
   Main Library ___  Bookmobiles ___
   Branches ___  Deposit Collections ___

6. Do you offer library orientation to adult education students?
   
   YES, on my own initiative ___
   YES, as often as requested ___
   NO, I have never been requested to do so ___
   NO, we are unable to provide such orientation ___
   NO, courses offered do not require library support ___

7. Do you have sufficient library holdings on hand to support the courses offered?
   
   YES ___  NO ___
   NO, but we are acquiring needed materials as rapidly as possible ___

8. Are materials to support courses available to you through inter-library loan?
   
   YES ___
   YES, but we rarely have enough advance notice to obtain them ___
   NO ___
   None are required ___

9. Are any union catalogs or databases, other than one for your immediate library system available to assist you in locating desired materials?
   
   NO ___
   YES, O.C.L.C. ___
   YES, the following ___

10. Does the University of Maryland (or other sponsoring institutions) contribute money and/or library materials to your library in support of its courses?
    
    YES ___  NO ___
11. Do course instructors share syllabi related to currently offered courses with you?
   Always
   When I request it
   Sometimes
   Hardly ever

12. When I receive information about an upcoming course,
   I try to order materials to support it
   I try to obtain materials through Inter-library loan
   I usually am unable to order materials due to budget restraints
   I already have sufficient materials

13. How many times per week do you request materials on inter-library loan?
   1-5 times per week
   5-10 times per week
   More than 10 times per week

14. What one factor would increase your ability to provide better support for education programs?

PART II: ADULT CONTINUING EDUCATION

1. What percentage of your time at the information desk is spent with job skill related questions?
   More than fifty percent
   Fifty percent
   Twenty-five percent
   Less than twenty-five percent

2. How much time is spent assisting in searches for information related to adult continuing education, such as learning a foreign language, studying a period in history, learning a craft or hobby, upgrading a skill, or learning a new skill such as personal computing?
   ___ percent of our reference work

3. How much time per person can you give to such requests for information?
   ___ minutes per request
4. Do you request materials from other libraries for patrons' continuing education needs?
   YES, often
   YES, but only when requested to do so
   NO, not usually
   NO, our collection usually meets their needs

5. Have you received any special training in adult learning theory?
   YES, sufficient for my needs
   YES, but I would like to have more
   NO, but I would like to take such training

6. Do you see yourself in a "mentor" role in regard to the learning needs of your patrons?
   YES, often
   YES, but only with those who request it
   NO, I have little impact on their learning

7. What special topics in continuing education are asked for frequently by your patrons? Check all that apply.
   Foreign languages       Famous biographies
   Learning to type        Creative writing
   Learning about computers Literature
   Local history of the surrounding area
   Learning a hobby (photography, electronics, woodworking, etc.)
   Other

8. Do most of your patrons use the library
   Every day
   Once a week
   Once a month

9. What information or reading materials do the majority of your patrons request?
   Leisure reading (fiction, light non-fiction)
   Periodicals
   Information related to job skill training
   Information related to academic courses
   Information related to continuing education

10. How many of your patrons use the materials requested within the library?
    Most of them
    Some of them
    None of them
11. Are ample "quiet" areas made available to use materials?
   YES ___ NOT ENOUGH ___

12. Do you believe your patrons use of books and libraries will continue when they become civilians?
   YES ___ NO ___

13. What level of contact do you have with your local public library?
   Reference contact ___
   Contact through professional organizations ___
   We belong to the same library network ___
   We participate in programming together ___
   We have very little contact ___

14. How can public libraries cooperate more fully with Armed Forces Libraries?

15. How do you keep updated with new advances in the library field?  (Check as many as apply)
   Through local workshops ___
   Through reading professional literature ___
   By joining professional associations ___
   By attending professional conferences ___
   Through contact with co-workers ___

16. Who pays for your continuing education?
   My employer ___ I pay for it ___
   I pay part of the amount, my employer pays the rest ___

17. Would you attend more continuing education opportunities if you were made aware of them?
   YES ___ NO ___

Comments:

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
The Adult Learner and the Public Library Career Planning Center:

InfoPLACE and the 1980's

Martin Elliot Jaffe

Cuyahoga County Public Library

American adults are facing unprecedented demands as they attempt to plan and prepare for the social and economic challenges of the 1980's and beyond. Where can adult learners find answers to their myriad questions concerning effective life planning? How can they find information on career fields and educational programs? What if they need help in preparing a resume or learning job interviewing skills?

As an innovative public service intensively utilized by a demographic and socio-economic cross section of Cuyahoga County adults, InfoPLACE has been on the cutting edge of adult career decision making, educational planning, and job search strategy implementation since 1976. By integrating our extensive community and information and referral system as a comprehensive adjunct to our career planning resources, InfoPLACE is truly a community resource center where adults can find effective answers to their questions concerning effective life planning for the challenging social and economic changes of the upcoming decades.

Adults utilizing InfoPLACE career planning/community information resources are engaging in what noted adult educator Alan Tough has defined as "intentional change;" searching for the resources to get them on a path toward vocational, intellectual, or interpersonal growth. Tough found that 33% of an extensive sample of adults in the United States, Canada, and the United Kingdom were engaged in intentional change focused on career, education, and human development, key focus areas of InfoPLACE Service.

We are on the crest of a new phase of public educational consciousness; as the baby boom era and its emphasis on youth fade into historical memory, public concern and public policy are shifting to highlight a new question--what are the educational and informational needs of adults, and how can we re-focus the energies of public and private institutions to meet their needs? This literature review section will probe the challenge of this dimension of change as we examine these core concerns. Who are these adult learners? What are their needs? Are adults finding the educational/life planning information they seek?
Learners and Non-Learners

Learners are considerably younger than non-learners. Twice as many learners as non-learners come from the group 25 to 29 years of age, while only half as many come from the group aged 65 to 69. Half of all adult learners are under 40 (Aslanian, 1980).

Employed adults are far more likely to engage in learning than unemployed adults. Of all occupational groups, adults engaged in professional and technical work are most likely to learn, while those in farm work are least likely (Aslanian).

Learners are considerably better educated than non-learners. Adults who have gone beyond high school are twice as likely to learn as those who have not (Aslanian).

Life Transitions

Aslanian (1980) documents that 83% of the sample cited a life transition as the key motivation toward engaging in a learning project.

American adults have life-long career related information needs. Aslanian determined that 36% of all American adults perceived themselves to be in career transition. Of these adults, a substantial percentage expressed a strong interest in materials and information related to career decision making. Eighty-two percent wanted facts on occupational fields; seventy-eight percent wanted to examine career possibilities; seventy-nine percent expressed an interest in information on transferable skills, and 64% wanted training in self-analysis and decision making techniques.

Men learn more often than women because of career change, while women learn more often than men because of family, leisure or health transition. Adults under age 65 learn chiefly because of career transitions, while adults over 65 learn chiefly because of leisure and family transitions. As income and occupational level rise, adults learn more often for career reasons (Aslanian).

Where do these adults participate in learning projects? An interesting finding of Aslanian was that of adults interested in learning for leisure transitions or family transitions, 35% of learning projects take place independently of any formal instruction or class. Over-all, 30% of adult learners learned completely on their own. Of those undergoing career transition, 50% learned either at their place of employment or at a college or
university. Sixty-five percent of those studying for a religious transition learned at religious institutions (p. 103). In summary, more adults (28%) learned completely on their own than in any single kind of institution offering adult learning (p. 101).

Therefore, another key need of the adult learner is for an outlet where information can be found on the vast array of possible learning programs or projects available for potential involvement. Adults seeking information on educational options may find an "information glut" and need assistance in exploring the various options available. Tarin and Shapiro (1981) described the efforts of 56 public libraries in New York State to establish programs to assist adults in sorting through and assessing options. The centers, known by different names, i.e. Learner's Advisory Service, Job Information Centers, have one element that unites them in a common focus—to bring together in one part of a public library all the broad range of resource materials on educational, life/career planning materials and produce a unified, highly identifiable resource.

The Education and Job Information Centers (EJIC's) are intended to assist users in making informed choices to meet their personal learning or career objectives. The centers provide three types of information: (a) employment information -- want ads, copies of microfiche listings from the state employment office, newsletters, etc.; (b) career information -- guides to career exploration and decision making, assessment instruments, material on individual career fields; and (c) educational program information -- access to information on learning resources -- traditional, public, private, community or industry based, at all levels of need from basic skills to post-doctoral.

Tarin and Shapiro also develop a useful framework for defining the role of the librarian staffing this special educational service as an "educational broker" for the learning needs of adults in the community. This viewpoint defines the educational broker as a specialist in education and career information who assists patrons as they explore various resources and options while maintaining a "neutral" point of view. In their words, "the ability to remain neutral yet supportive is critical to the process. The needs of the information consumer must remain foremost, and the broker should not be reduced to recruiting for local programs or become a passive document pusher" (p. 2366).

The public library is a key potential informational and possible programming source often overlooked as an adjunct to the plans of the adult learner. Expanding upon the conceptual themes detailed by Tarin and Shapiro, Knox (1983) provides a
comprehensive summary of the planning and implementation steps necessary if public libraries are to play an expanded role in the life of the adult learner. Knox's summary principles are:

1. Written and oral statements that the library is a source of information about continuing education opportunities.

2. Holding some continuing education activities (courses, workshops, discussion groups) in library facilities, or with library cosponsorship to increase the library's visibility as an organization concerned with continuing education.

3. Use of needs-assessment procedures to help adults clarify their educational needs and focus on pertinent educational opportunities.

4. Provision to continuing education providers of summary information about learning needs.

5. Listing of information (name, address, phone number, types of offerings) about continuing education providers, so that quick and accurate referrals can be made.

6. Provision of brochures and flyers about continuing education activities, along with an index or other ways to assist adults to locate relevant activities.

7. Collaboration with providers for joint needs-assessment and marketing projects.

8. Information services for continuing education activities in which the library is the provider. (p. 561)

Utilizing the library facility as a resource center for adults interested in career/life planning advisory services represents only the institutional aspect of what is a multi-faceted service.

Developing comprehensive skills in the subtle nuances of interpersonal communication has been a traditional concern of libraries for more than 100 years. In 1876, Samuel Swett Green of the Worcester (Massachusetts) Public Library presented a paper at a national librarian's conference and established the philosophical tradition that underlies our career advisory program of 1988. As Mr. Green said, "A hearty reception by a sympathizing friend, and the recognition of someone at hand who will listen to inquiries" (Tarin & Shapiro, p. 2369).
While much of the intellectual emphasis of library science has recently centered on information technologies and administrative organization, Green's paper underscores a significant point: librarians are human services professionals and share the same intellectual tradition of helping professionals, particularly in the stress placed on the importance of communication and the implementation of communication strategies to enhance the goal seeking behavior of our patrons.

In his recent work, Interpersonal Communication, Patrick R. Penland highlighted the functional strategy of the library endeavor. "In interpersonal communication, each patron is considered to be a responsible participant in his own growth process not merely a passive receiver of the communicator's advice information or instructional program."

Two inter-related components form the base of InfoPLACE operational core: (a) individual client assessment and skill-building, and (b) utilization of occupational information/educational training materials. The concept of "empowerment" (Bolles, 1984) is central to our goals—can we enable our clients to gain self-awareness, knowledge of their transferable skills and competence in utilizing occupational information sources for effective vocational decision-making now and in the future? Bolles (1980) also has defined the essence of the vocational counseling interview in a series of steps: "I. What does this client perceive his/her problem to be? What do I perceive his/her problem to be. II. Does the client know what transferable skills he/she has and which of these he/she most enjoys and does best?" The rest of the steps are concerned with identifying and approaching organizations using the individual's skills and being hired by that organization.

In his program presentation outlined in this paper, InfoPLACE Career and Educational Consultant Martin Elliot Jaffe will provide details on two facets of InfoPLACE, individual counseling interventions and group workshop techniques. Jaffe's program details the VISTA method of career decision-making--vision, interests, skills, training/education and an action plan; as well as MOPE, a job search training dynamic based on motivation, organization, planning and presentation, and energy.

Vocational Information

Fredrickson (1984) recently discussed what he termed "an embarrassing problem" for vocational guidance practitioners: the lack of career information materials offered to career counseling
clients. He cites numerous surveys to document his assertion. Fredrickson discusses the vital role of career information as an essential component in clarifying and identifying short-term and lifetime goals.

Career information helps clients to be more specific about their personal goals; aspiration levels are matched with ability assessments; goals are translated into meaningful terms; personal goals are examined in light of the reality of the world of work. (p. 288)

Hoppock (1966) crystallized the centrality of accurate, comprehensive occupational information as vital to the career planning process. InfoPLACE follows in the philosophical tradition established by Hoppock and others, most notably Fine (1980).

One final note on the InfoPLACE collection and service. We are open to the entire community; our clients do not have to fill out intake forms or register; all they need to do is arrange an appointment for an individual counseling session. To use our vocational materials collection, all an individual needs is a library card; it is a freely circulating collection.

We believe our service offers the answers to the questions I asked at the beginning of this article. The public library, existing as a resource for the entire community, is the ideal source for a centralized comprehensive adult career planning service.

Adult Information-Seeking Behavior

An overview of the literature concerning adult awareness of community-based vocational resource information reveals the existence of what may be termed an "information gap;" despite available programs, both public and private, the majority of adults are not aware of where to go for advice. Knox (1979) summarized adult information-seeking behavior: (a) Most adults do not know about agencies offering job or career information in their communities; (b) Adults perceive the available career services in their localities as not being able to meet their needs; (c) Adults indicate acceptance of all methods and ways of receiving help; (d) Adults view printed materials, formal courses, cooperative work programs and the first-hand observation of work as more meaningful than computers, mass media techniques, etc; and (e) Adults learn about available jobs through their work experience contacts and pursue these leads without assistance.
Chen (1982) conducted a massive survey of adult information-seeking patterns by utilizing telephone interviews with 2,400 adults in six New England states. According to Chen's survey results, while information on job-related issues and/or getting and changing jobs ranked as the number one informational demand by adults in the survey, 67.4% of respondents found interpersonal information providers as most helpful in meeting their needs and did not utilize libraries, social agencies, etc.

The need of the newly unemployed for career counseling was documented by Parsons, Griffore and LaMore (1983). They studied 171 newly unemployed adults in Lansing, Michigan. A survey of their informational needs ranked learning techniques of looking for work as number one in preference. Asked to rank how they preferred to receive information, the respondents expressed a strong preference for workshops and classes on looking for work, job re-training programs, resume preparation and interviewing skills.

Career counseling for adult learners is a critical need that will remain vitally important in the challenging and unsettled times ahead. The ongoing challenge for career counselors was recently summarized by William Pilder (1984), the director of a program teaching job-hunting skills to displaced steel workers in Johnstown, Pennsylvania:

What we have to do is get people to see themselves in another way -- we say 'put a new frame on yourself,'" says Pilder. "A man may see himself as a millwright, an unemployed millwright, but he has a lot of other skills.

Our work is really healing serious depression, healing depressed energies and getting them going. Carl Jung said 'you don't choose change, life steps up and challenges you and either you have the capacity to respond or not.' So we're talking about a transformation of the psyche; individuals have to believe they can transform themselves in mid-life -- then the collective will move when the individual energy is freed. (Smith, p. 73)

This ongoing concern will confront us as we face the responsibility of implementing vital and viable educational services for the challenging decades ahead. Levine and Piggins (1981) have suggested a comprehensive strategy to ensure success in our collective endeavors:

Very little will change without a concerted, cooperative
effort to create national policy, laws and appropriations for adult learning projects. There need to be made a national body as well as regional bodies made up of government, labor, industry, education and community representatives that can help to create policy, exchange information, and begin to do some intelligent and realistic planning about how to provide lifelong learning opportunities to create a more dynamic work force and a more informed populace. (p. 27)
References


Delivery of Materials to Off-Campus Students and Faculty

Jean S. Johnson

University of Wyoming Libraries

The University of Wyoming (UW) Libraries in Laramie provide library services to off-campus students and faculty from 40 to 400 miles away in Wyoming and several of the surrounding states. Distance and sparseness are factors which cause the libraries to rely primarily on the U.S. Postal Service to deliver books, microforms, and photocopied articles to these students and faculty.

Requests for information are filled for two distinct groups in Wyoming: upper division students and faculty in Casper and Extension students and faculty in the state. The University maintains an upper division center in Casper, 150 miles away from Laramie, in cooperation with Casper College, a community college. The University houses a 10,000 volume collection and library staff on the college campus to support the curriculum of upper division BA/BS courses and an MBA program with a combined enrollment of over 300 students. The collection cannot begin to support the research needs of the students and resident faculty; therefore, they must rely on the resources of the Laramie campus and interlibrary loan. Extension Services fills requests sent by the Casper library staff and requests received from students and faculty elsewhere in the state and the surrounding areas who are enrolled in or teaching UW courses offered in remote areas.

Study

The primary purpose of the study to be described was to determine how quickly the mail is delivered; does distance or size of package make a difference in speed, and is there a fast and more efficient way of delivering materials to students and faculty. The time it takes to process requests was also considered to be useful information.

A mail survey was conducted from June 1, 1987 through March 25, 1988. Postcards were included in all envelopes and packages mailed. Each request for specific information received is given a log number. The log number or numbers (if more than one item was included in the mailing) was indicated on the postcard along with the date mailed. The student or faculty member needed only to write in the date received and drop the postcard in a mailbox. (Figure 1)
Figure 1. Postcard.

We wish to improve the delivery of books and articles from the Laramie campus. A study is being conducted to determine how long it takes for an item to reach you using the U.S. Postal Service.

Log____

The enclosed was mailed__________

On what date did you receive it?_______

Please drop this stamped, addressed postcard in any mailbox. Your cooperation is appreciated.

Jean S. Johnson
University of Wyoming Libraries

Of the 1200 postcards mailed, 968 were returned. Five hundred sixty-nine Extension cards and 339 Casper cards were usable.

By matching the postcard log numbers with the records, information was gathered on address (P.O. or street), zip code for town, status (faculty, student or other), number of journal articles, pages, books, or microforms, date received, Saturday, Sunday, holiday, turnaround time, and whether the item was obtained through interlibrary loan. (Figure 2) These were all anticipated to have some effect on the speed of delivery. The variable on status was included to determine what proportion of requests processed were for students and if faculty requests were a significant part of the population. Finally, turnaround time and interlibrary loan were added to see if turnaround time was a more important factor than delivery in providing needed information quickly to off-campus students and faculty.
Figure 2. Record.

<table>
<thead>
<tr>
<th>RECEIVED</th>
<th>07/01/87 LOG 21</th>
<th>DEADLINE 8-1-87</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAST NAME</td>
<td>DeGroot</td>
<td>FIRSTNAME Earl</td>
</tr>
<tr>
<td>ADDRESS</td>
<td>711 Vandehai</td>
<td></td>
</tr>
<tr>
<td>CITY</td>
<td>Cheyenne</td>
<td>ZIP 82009</td>
</tr>
<tr>
<td>PHONE</td>
<td>777-7880</td>
<td></td>
</tr>
<tr>
<td>STATUS</td>
<td>student COURS/INST MPA/Davis</td>
<td></td>
</tr>
<tr>
<td>CALLNUMBER</td>
<td>HJ 101 .N37x</td>
<td></td>
</tr>
<tr>
<td>JOURNAL</td>
<td>NATIONAL TAX JOURNAL</td>
<td></td>
</tr>
<tr>
<td>VOLUME</td>
<td>31</td>
<td>ISSUE 2</td>
</tr>
<tr>
<td>AUTHOR</td>
<td>Albrecht, &amp; Pogue</td>
<td></td>
</tr>
<tr>
<td>TITLE</td>
<td>AFDC Tax Rates, Work Incentivves, and Welfare-reform - Comment</td>
<td></td>
</tr>
<tr>
<td>BOOKAUTHOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOOKTITLE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPLETE</td>
<td>Y</td>
<td>MAILED 07/15/87</td>
</tr>
<tr>
<td>TURN</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>LOAN</td>
<td></td>
<td>RETURNED / /</td>
</tr>
<tr>
<td>ILL</td>
<td>Y</td>
<td>ILLDATRE 07/06/87</td>
</tr>
<tr>
<td>NOTES</td>
<td>ISBN 0028-0283; ULRICH'S:336; ULS:2917; UW missing issue</td>
<td></td>
</tr>
</tbody>
</table>

The data gathered was input into WordPerfect by student assistants, and processed through SAS on the University's main frame computer. The statistics department of the University provides free consultant assistance for staff and faculty doing research. This assistance was invaluable in determining what data to use and what types of graphs and tables would be most effective.

As can be seen in Figure 3, Wyoming is a large state in area. However, it is small in population, with only about 500,000 people.
Zip codes were converted to city names, showing the range of locations to which materials were sent. (Figure 4) Cheyenne is only 49 miles from Laramie and is the main mail distribution point for the state. There are section centers scattered around the state that may do additional sorting if necessary. Powell, 384 miles away, is in the opposite corner of the state and mail goes through Cody where it may be further sorted. Sheridan, at the top of the state, is 294 miles north and Evanston is in the southwestern corner, 308 miles away. The 9999 number was an arbitrary one to indicate locations out of state. (Figure 5) These locations were in Montana, South Dakota, Nebraska, and Colorado. In most cases out-of-state students are graduate students enrolled in a weekend nursing degree program on campus, and others who are writing theses and dissertations.
Figure 4. Wyoming.

- University of Wyoming
- County seats
- U. S. Postal Service sorting center
- Sites to which articles and books were mailed.
Figure 5. Wyoming and surrounding area

• University of Wyoming
x Sites to which articles and books were mailed.

Results

By far the greatest number of items were sent to students. Besides the resident faculty in Casper there are faculty who live out in the state. Some are hired to teach specific classes only, some are UW field representatives, and one in Powell, for instance, is a researcher with the agricultural experiment station. In a few cases, items are requested by non-faculty and non-students who are affiliated with the University in some way. In Table 1 over 80% of the requests filled in both groups were sent to students. Slightly more Casper faculty requests were filled than for Extension faculty, which is to be expected since the former are usually full-time faculty.
Table 1

Students and Faculty

<table>
<thead>
<tr>
<th></th>
<th>EXTENSION</th>
<th></th>
<th>CASPER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stu/Fac</td>
<td>Frequency</td>
<td>Stu/Fac</td>
<td>Frequency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent</td>
<td></td>
<td>Percent</td>
</tr>
<tr>
<td>Faculty</td>
<td>70</td>
<td>12.3</td>
<td>Faculty</td>
<td>59</td>
</tr>
<tr>
<td>Student</td>
<td>492</td>
<td>86.5</td>
<td>Student</td>
<td>272</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>1.2</td>
<td>Other</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>569</td>
<td>100.0</td>
<td></td>
<td>339</td>
</tr>
</tbody>
</table>

The bulk of the requests received are for journal articles. Only 147 Extension and 96 Casper requests were for books or microforms. As can be seen in Table 2, most of the articles were mailed singly. The policy in the department is to mail items as quickly as they are processed. Therefore, if a student requests two articles and a book, one article might be mailed on one day and the other on another day depending on how quickly they are found and photocopied.
Table 2

Number of Journal Articles

<table>
<thead>
<tr>
<th>EXTENSION</th>
<th>CASPER</th>
</tr>
</thead>
<tbody>
<tr>
<td>No./Journals</td>
<td>Frequency</td>
</tr>
<tr>
<td>1</td>
<td>219</td>
</tr>
<tr>
<td>2</td>
<td>74</td>
</tr>
<tr>
<td>3</td>
<td>48</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
</tr>
</tbody>
</table>

422 100.2 243 100.0

Mean = 2.7  Mean = 3.1
Median = 1   Median = 2
Mode = 1     Mode = 1

Table 3 shows packets of article pages as they were probably mailed. The figures recorded are for pages requested and do not take into account smaller journal sizes that allow for two pages to be copied onto a single sheet. Pages were divided into segments on the approximate number of sheets that can be mailed in the various size envelopes used. (Table 4) The postage rates were $ .22, t ounce, and $ .17, each additional ounce, at the time of the survey.
Table 3

Journal Pages

<table>
<thead>
<tr>
<th>EXTENSION</th>
<th>CASPER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal Pages</td>
<td>Frequency</td>
</tr>
<tr>
<td>1 to 5</td>
<td>107</td>
</tr>
<tr>
<td>6 to 9</td>
<td>71</td>
</tr>
<tr>
<td>10 to 16</td>
<td>91</td>
</tr>
<tr>
<td>17 to 21</td>
<td>35</td>
</tr>
<tr>
<td>22 to 27</td>
<td>27</td>
</tr>
<tr>
<td>28 to 33</td>
<td>14</td>
</tr>
<tr>
<td>34 to 60</td>
<td>44</td>
</tr>
<tr>
<td>41 to 100</td>
<td>23</td>
</tr>
<tr>
<td>101 to 200</td>
<td>9</td>
</tr>
<tr>
<td>over 200</td>
<td>1</td>
</tr>
</tbody>
</table>

422 100.0 244 100.0

Mean = 21
Median = 12
Mode = 4

Mean = 40.3
Median = 18
Mode = 6

Table 4

Envelope Volume and Size: Postage Rates

<table>
<thead>
<tr>
<th>Pages</th>
<th>Postage Rates</th>
<th>Envelope Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 5</td>
<td>.22</td>
<td>white, standard</td>
</tr>
<tr>
<td>6 to 9</td>
<td>.39</td>
<td>7 1/2&quot;x10 1/2&quot;, half manila</td>
</tr>
<tr>
<td>10 to 16</td>
<td>.56</td>
<td>7 1/2&quot;x10 1/2&quot;, half manila</td>
</tr>
<tr>
<td>17 to 21</td>
<td>.73</td>
<td>9&quot;x12&quot;, manila</td>
</tr>
<tr>
<td>22 to 27</td>
<td>.90</td>
<td>9&quot;x12&quot;, manila</td>
</tr>
<tr>
<td>28 to 33</td>
<td>1.07</td>
<td>9&quot;x12&quot;, manila</td>
</tr>
<tr>
<td>over 33</td>
<td></td>
<td>10&quot;x15&quot;, manila or box</td>
</tr>
</tbody>
</table>

Journal articles were sent first class in various sizes of envelopes and occasionally in a box. For the most part, over 50% of them arrived in one day regardless of the type of envelope and in the Casper area 75% arrived in one day. (Table 5)
Table 5

Journal Pages by Days

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROW PCT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 5</td>
<td>99</td>
<td>32</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>147</td>
</tr>
<tr>
<td>6 - 9</td>
<td>62</td>
<td>28</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>10 - 16</td>
<td>94</td>
<td>32</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>134</td>
</tr>
<tr>
<td>17 - 21</td>
<td>35</td>
<td>19</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>61</td>
</tr>
<tr>
<td>22 - 27</td>
<td>26</td>
<td>15</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>28 - 33</td>
<td>18</td>
<td>11</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>34 - 60</td>
<td>52</td>
<td>13</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>71</td>
</tr>
<tr>
<td>61 - 100</td>
<td>27</td>
<td>13</td>
<td>8</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>49</td>
</tr>
<tr>
<td>101 - 200</td>
<td>11</td>
<td>7</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>OVER 200</td>
<td>7</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

**TOTAL**  | 421| 172| 44 | 17 | 4  | 2  | 3  | 1  | 1  | 1  | 666   |

Note: For ease of reading, all 0 values and percents have been omitted from this and all following tables.
Only one of the largest sized envelopes sent to the Casper area took more than three days and only 17 envelopes of any size took more than two days. The one envelope that took seven days was a 9"x 12" envelope containing two articles totaling 18 pages. It was mailed on March 10 which was the day a blizzard began and University employees were sent home in the afternoon. The University was closed the next day and it could be that the envelope did not leave the campus until Monday, which would have been four days.

The Extension envelope containing a one page article that took ten days to reach Powell in the northwestern part of the state and one containing sixty-six pages that took seven days were mailed two and one days, respectively, before Thanksgiving. There was some bad weather in Wyoming around the holiday and that may account for part of the delay.

The nine-day half-manila envelope was mailed to Gering, Nebraska just before Christmas and was picked up at a post office box on January 2. There was a major snow storm in the region two days after Christmas. The eight-day manila envelope was sent to Knoxville, Iowa over the Veterans Day holiday. The other seven-day envelope that contained one page was sent to Sheridan College in October, a time which may have included some hunting vacation days.

The next two tables show the number of book and microform mailings. These were substantially fewer than journal articles. (Tables 6 and 7) Seventy-nine percent of all the microforms mailed were ERIC documents on microfiche. Books were mailed library rate and microfiche envelopes were sent first class.
Table 6  
Number of Books  

<table>
<thead>
<tr>
<th>No/Books</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENSION</td>
<td></td>
<td>CASPER</td>
</tr>
<tr>
<td>1</td>
<td>93</td>
<td>73.2</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>15.7</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>5.5</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>.8</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>.8</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No/Books</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>34</td>
<td>42.5</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>22.5</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>12.5</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>8.8</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>6.3</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Mean = 1.5  
Median = 1  
Mode = 1

Table 7  
Number of Microforms  

<table>
<thead>
<tr>
<th>No/Microforms</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENSION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>13</td>
<td>56.5</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>17.4</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>8.7</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>4.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No/Microforms</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>26.7</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>20.0</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6.7</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>13.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No/Microforms</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
</table>

Mean = 2.9  
Median = 1  
Mode = 1
The delivery of books using the library rate traveled equally as quickly as first class mail. (Table 8) In Extension the one three-book package that took eleven days had the Christmas weekend snow storm to contend with. In addition, it was addressed to the student in Colorado and had to be forwarded to Montana where she had returned immediately after Christmas. With all these circumstances the package moved rather quickly. The package of four books that took seven days also went to southern Montana.
Table 8

Number of Books by Days

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>DAYS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>11</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROW PCT</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>49</td>
<td>45</td>
<td>19</td>
<td>9</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>127</td>
</tr>
<tr>
<td></td>
<td>38.6</td>
<td>35.4</td>
<td>15</td>
<td>7.1</td>
<td>3.9</td>
<td>11.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>23</td>
<td>11</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>60.5</td>
<td>28.9</td>
<td>5.3</td>
<td>2.6</td>
<td>2.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>52.9</td>
<td>23.5</td>
<td>17.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.9</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>33.3</td>
<td>22.2</td>
<td>33.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>16.7</td>
<td>33.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>90</td>
<td>66</td>
<td>30</td>
<td>11</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>207</td>
<td></td>
</tr>
</tbody>
</table>
All Casper books and microforms go to the UW library branch in that city. None of the books in this sample took longer than three days. Seventy-five percent of all books mailed, regardless of destination, arrived in two days and 90% arrived in three days. Even though people complain about the slowness of mail delivery (and there are cases when a letter or package takes an inordinately long time and those are the ones remembered) mail delivery in the United States, at least in one part, is really quite fast.

The one microfiche envelope that took nine days was mailed to Casper during the March blizzard. (Table 9) Also, it was mailed to the Casper College campus which may have attributed to some of the delay.
Table 9

Number of Microforms by Days

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>9</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROW PCT</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>15</td>
<td>13</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>38</td>
</tr>
</tbody>
</table>
The preceding included the various formats for delivery. If all of that is combined, an overall picture develops. As Table 10 shows, just under 70% of all types of mail to the Casper area and just under 51% to the surrounding region were delivered in one day. When one and two days are combined all mail was received 91% of the time in Casper and 82% elsewhere. Only 2.6% of total mailings took five days.

Table 10

<table>
<thead>
<tr>
<th>EXTENSION</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Days</td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>1</td>
<td>289</td>
<td>50.8</td>
</tr>
<tr>
<td>2</td>
<td>178</td>
<td>31.8</td>
</tr>
<tr>
<td>3</td>
<td>55</td>
<td>9.7</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>4.4</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
<td>1.9</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>.7</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>.5</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>.2</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>.2</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>.2</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>569</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Mean = 1.8
Median = 1
Mode = 1

Does delivery to a post office box increase speed? As Table 11 shows, it does not appear to help. In fact, items delivered to a street address moved slightly more quickly. A third variable was added to Casper in this table. The library moved from the public library downtown in November to the community college campus. There is now no Saturday mail delivery and there were reports that the campus mail was slow. As the table shows, this did slow down delivery somewhat and the one item that took nine days went through the campus mail. However, there is no conclusive evidence at this point that going through campus mail is a major delaying factor.
### TABLE 11

**Address by Days**

<table>
<thead>
<tr>
<th>ADDRESS</th>
<th>DAYS</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREQUENCY ROW PCT</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>STREET</td>
<td>230</td>
<td>118</td>
</tr>
<tr>
<td></td>
<td>57.8</td>
<td>29.7</td>
</tr>
<tr>
<td>P.O. BOX</td>
<td>59</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>34.5</td>
<td>35.1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>289</td>
<td>178</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADDRESS</th>
<th>DAYS</th>
<th>CASPER</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREQUENCY ROW PCT</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>STREET</td>
<td>203</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>73.6</td>
<td>18.8</td>
</tr>
<tr>
<td>P.O. BOX</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>70.6</td>
<td>23.5</td>
</tr>
<tr>
<td>CC*</td>
<td>22</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>47.8</td>
<td>34.8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>237</td>
<td>72</td>
</tr>
</tbody>
</table>

CC = Community college campus

With a state as large in area as Wyoming and the major mail distribution point being in the southeastern part of the state, one wondered if the more distant towns had slower mail delivery. As can be seen on Table 12, distance does not appear to make a great deal of difference. The one page article that took 10 days to reach Powell was over the Thanksgiving holiday. The exception is for out-of-state delivery and that involves more than one distribution point.
Table 12

Town by Days

<table>
<thead>
<tr>
<th>Extension and Casper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town</td>
</tr>
<tr>
<td>FREQUENCY</td>
</tr>
<tr>
<td>ROW PCT</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Cheyenne</td>
</tr>
<tr>
<td>49 miles</td>
</tr>
<tr>
<td>86.2</td>
</tr>
<tr>
<td>11.7</td>
</tr>
<tr>
<td>1.1</td>
</tr>
<tr>
<td>94</td>
</tr>
<tr>
<td>Burns</td>
</tr>
<tr>
<td>67 miles</td>
</tr>
<tr>
<td>100</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>Towlingon</td>
</tr>
<tr>
<td>132 miles</td>
</tr>
<tr>
<td>33.3</td>
</tr>
<tr>
<td>33.3</td>
</tr>
<tr>
<td>22.2</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1.1</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>Rawlins</td>
</tr>
<tr>
<td>100 miles</td>
</tr>
<tr>
<td>73.1</td>
</tr>
<tr>
<td>15.4</td>
</tr>
<tr>
<td>7.7</td>
</tr>
<tr>
<td>3.9</td>
</tr>
<tr>
<td>26</td>
</tr>
<tr>
<td>Baggs/Savory</td>
</tr>
<tr>
<td>155 miles</td>
</tr>
<tr>
<td>60</td>
</tr>
<tr>
<td>40</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>Worland</td>
</tr>
<tr>
<td>309 miles</td>
</tr>
<tr>
<td>75</td>
</tr>
<tr>
<td>25</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>Burlington &amp; Byron</td>
</tr>
<tr>
<td>380 miles</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>Cody</td>
</tr>
<tr>
<td>359 miles</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>Powell/Lowell</td>
</tr>
<tr>
<td>380 miles</td>
</tr>
<tr>
<td>21</td>
</tr>
<tr>
<td>19</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>55</td>
</tr>
<tr>
<td>Ten Sleep</td>
</tr>
<tr>
<td>312 miles</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>Lander &amp; Riverton</td>
</tr>
<tr>
<td>221 miles</td>
</tr>
<tr>
<td>46</td>
</tr>
<tr>
<td>22</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>83</td>
</tr>
<tr>
<td>Pavilion</td>
</tr>
<tr>
<td>251 miles</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>Casper area</td>
</tr>
<tr>
<td>148 miles</td>
</tr>
<tr>
<td>256</td>
</tr>
<tr>
<td>78</td>
</tr>
<tr>
<td>25</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>367</td>
</tr>
</tbody>
</table>

(Continued)
Table 12  
Town by Days (Continued)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6 - 7</th>
<th>8 - 9</th>
<th>10 - 11</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Row Pct</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Douglas</td>
<td>7</td>
<td>136</td>
<td>100</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glenrock</td>
<td>10</td>
<td>165</td>
<td>66.6</td>
<td>20</td>
<td>6.7</td>
<td>6.7</td>
<td></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Gillette</td>
<td>1</td>
<td>249</td>
<td>10</td>
<td>70</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Sheridan &amp; Banner</td>
<td>40</td>
<td>290</td>
<td>59.7</td>
<td>19</td>
<td>28.4</td>
<td>6</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Buffalo</td>
<td>6</td>
<td>260</td>
<td>37.5</td>
<td>9</td>
<td>56.3</td>
<td>6.3</td>
<td></td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Clearmont</td>
<td>2</td>
<td>280</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manchester</td>
<td>1</td>
<td>307</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rock Springs</td>
<td>1</td>
<td>208</td>
<td>3.7</td>
<td>20</td>
<td>74.1</td>
<td>14.8</td>
<td>3.7</td>
<td>3.7</td>
<td>27</td>
</tr>
<tr>
<td>Evanston</td>
<td>5</td>
<td>306</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green River</td>
<td>1</td>
<td>222</td>
<td>25</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mt. View</td>
<td>7</td>
<td>256</td>
<td>87.5</td>
<td>1</td>
<td>12.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afton &amp; Freedom</td>
<td>1</td>
<td>375</td>
<td>33.3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out of State</td>
<td>9</td>
<td>11.4</td>
<td>44.3</td>
<td>20.3</td>
<td>12.7</td>
<td>3.8</td>
<td>3.8</td>
<td>2.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Total</td>
<td>526</td>
<td>250</td>
<td>78</td>
<td>30</td>
<td>11</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>908</td>
</tr>
</tbody>
</table>
By combining days and months of the year in Table 13, the delays noted were all grouped in the months associated with major holidays (Thanksgiving, Christmas, and New Year's) and bad weather (November, December, and March).

Table 13

Days by Month

EXTENSION AND CASPER

<table>
<thead>
<tr>
<th>FREQUENCY ROW PCT</th>
<th>Jun-87</th>
<th>Jul-87</th>
<th>Aug-87</th>
<th>Sep-87</th>
<th>Oct-87</th>
<th>Nov-87</th>
<th>Dec-87</th>
<th>Jan-88</th>
<th>Feb-88</th>
<th>Mar-88</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>COL PCT</td>
<td>28</td>
<td>40</td>
<td>29</td>
<td>51</td>
<td>97</td>
<td>76</td>
<td>15</td>
<td>29</td>
<td>66</td>
<td>95</td>
<td>526</td>
</tr>
<tr>
<td>1</td>
<td>5.3</td>
<td>7.6</td>
<td>5.5</td>
<td>9.7</td>
<td>18.4</td>
<td>14.4</td>
<td>2.9</td>
<td>5.5</td>
<td>12.5</td>
<td>18.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>80</td>
<td>78.1</td>
<td>71.8</td>
<td>58.1</td>
<td>66.1</td>
<td>39.5</td>
<td>49.2</td>
<td>49.3</td>
<td>52.5</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>23</td>
<td>4</td>
<td>5</td>
<td>19</td>
<td>50</td>
<td>28</td>
<td>12</td>
<td>16</td>
<td>44</td>
<td>47</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td>9.2</td>
<td>2.3</td>
<td>2</td>
<td>7.6</td>
<td>20</td>
<td>11.2</td>
<td>4.8</td>
<td>6.4</td>
<td>17.6</td>
<td>18.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>41.2</td>
<td>12</td>
<td>13.5</td>
<td>26.8</td>
<td>29.9</td>
<td>24.3</td>
<td>31.6</td>
<td>27.1</td>
<td>32.8</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>7</td>
<td>2</td>
<td>9</td>
<td>12</td>
<td>27</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>3.8</td>
<td>2.6</td>
<td>1.3</td>
<td>1.3</td>
<td>17.9</td>
<td>9</td>
<td>2.6</td>
<td>11.5</td>
<td>15.4</td>
<td>34.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.4</td>
<td>4</td>
<td>2.7</td>
<td>1.4</td>
<td>8.4</td>
<td>6.1</td>
<td>5.3</td>
<td>15.3</td>
<td>9</td>
<td>14.9</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>3.3</td>
<td>6.7</td>
<td>13.3</td>
<td>6.7</td>
<td>23.3</td>
<td>10</td>
<td>20</td>
<td>16.7</td>
<td>4.5</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.8</td>
<td>4</td>
<td>2.4</td>
<td>1.7</td>
<td>18.4</td>
<td>5.1</td>
<td>3.7</td>
<td>2.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - 6</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6.7</td>
<td>13.3</td>
<td>6.7</td>
<td>6.7</td>
<td>33.3</td>
<td>33.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.8</td>
<td>5.4</td>
<td>0.6</td>
<td>0.9</td>
<td>3.7</td>
<td>2.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 - 8</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>0.6</td>
<td>0.9</td>
<td>2.6</td>
<td>0.7</td>
<td>0.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 - 11</td>
<td>1</td>
<td>2</td>
<td>25</td>
<td>50</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.6</td>
<td>3.4</td>
<td>0.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>56</td>
<td>50</td>
<td>37</td>
<td>71</td>
<td>167</td>
<td>115</td>
<td>38</td>
<td>59</td>
<td>134</td>
<td>181</td>
<td>908</td>
</tr>
</tbody>
</table>
Therefore, with the exception of several cases related to weather, holidays, and a cross country distance, mailings regardless of size were delivered in six days or less. Ninety-three percent of Casper's were delivered in two days as well as 86% of Extension's both in and out of state.

As the results have shown, in most cases, materials travel rapidly across Wyoming. There is no question, then, that once the material is found and processed students and faculty receive it quickly. The question then remaining is the processing time between the request received and the item sent. Unfortunately, these results are not as gratifying. (Table 14)

Table 14

Number of Turnaround Days

<table>
<thead>
<tr>
<th>Turnaround</th>
<th>Extension Frequency</th>
<th>Percent</th>
<th>Casper Turnaround</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>122</td>
<td>22.0</td>
<td>1</td>
<td>112</td>
<td>35.8</td>
</tr>
<tr>
<td>2</td>
<td>122</td>
<td>22.0</td>
<td>2</td>
<td>103</td>
<td>32.9</td>
</tr>
<tr>
<td>3</td>
<td>56</td>
<td>10.1</td>
<td>3</td>
<td>36</td>
<td>11.5</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>4.3</td>
<td>4</td>
<td>9</td>
<td>2.9</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
<td>2.2</td>
<td>5</td>
<td>10</td>
<td>3.2</td>
</tr>
<tr>
<td>6 to 10</td>
<td>94</td>
<td>16.9</td>
<td>6 to 10</td>
<td>19</td>
<td>6.1</td>
</tr>
<tr>
<td>11 to 20</td>
<td>85</td>
<td>15.3</td>
<td>11 to 20</td>
<td>16</td>
<td>5.1</td>
</tr>
<tr>
<td>over 20</td>
<td>40</td>
<td>7.2</td>
<td>over 20</td>
<td>8</td>
<td>2.6</td>
</tr>
</tbody>
</table>

555 100.0
313 100.0

Mean = 7.5
Median = 3
Mode = 1

Mean = 3.98
Median = 2
Mode = 1

Note. All turnaround times are based on regular work days.

The time needed to process the requests had a spread of anywhere from 10 over 20 days. At least 54% of Extension and 89% of Casper requests were processed in three days. The requests coming from Casper are screened to a degree in that library before being mailed and in many cases the students have already checked the on-line catalog to see what UW owns.
Another factor for the additional delay for Extension requests is interlibrary loan. Interlibrary loan was not included as a variable in the Casper group because once requested through OCLC the articles and books are sent directly to the Casper library while the Extension ones are sent to Laramie and then sent on to the student. The delays of over ten days may also be attributed to other factors within the library, such as bindery, call-ins, holds, missing during the first search, and formal search cards. (Table 15)

Table 15

Days by Turnaround

### A. EXTENSION

<table>
<thead>
<tr>
<th>Days</th>
<th>Turnaround</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>1</td>
</tr>
<tr>
<td>Row Pct</td>
<td>19.4</td>
</tr>
<tr>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>5 - 6</td>
<td>3</td>
</tr>
<tr>
<td>7 - 8</td>
<td>2</td>
</tr>
<tr>
<td>9 - 11</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
</tr>
</tbody>
</table>
Table 15
Days by Turnaround (Continued)

B. CASPER

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Turnaround</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROW PCT</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>87</td>
</tr>
<tr>
<td>2</td>
<td>39.7</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>30.8</td>
</tr>
<tr>
<td>5</td>
<td>13.6</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>40</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>112</td>
</tr>
</tbody>
</table>

On the whole, microforms were very easy to handle. Most of them were ERIC documents and were found quickly in the first search. Other microforms took longer if, for example, they were items included in the Western Americana Microfilm series. In some cases it took several days to determine that fact. (Table 16) All microforms in the sample were available in the library and did not have to be obtained through interlibrary loan.
Table 16

Number of Microforms by Turnaround

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>EXTENSION AND CASPER</th>
</tr>
</thead>
<tbody>
<tr>
<td>TURNAROUND</td>
<td>1</td>
</tr>
<tr>
<td>ROW PCT</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>23.5</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>13</td>
</tr>
</tbody>
</table>

When examining the turnaround time for Casper books and journal articles over 27% of both books and articles were filled in one day. (Table 17) In two days 70.3% of the articles and 63.8% of the books were filled. After the first attempt to fill a request is unsuccessful the form is placed in a to-check-again file and is searched again about a week later. Only 18.8% of the Casper books took more than five days to fill. A larger proportion, 38.5% of the journals took longer to find. While books may be checked out and require holds and call-ins before they are available, recent journals are frequently unavailable because they are at the bindery and are gone for a month. If a journal has just been shipped to the bindery, an effort is usually made to obtain the article through interlibrary loan.
Table 17

A. Number of Journals by Turnaround

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>CASPER</th>
<th>NUMBER OF JOURNALS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROW PCT</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>34</td>
<td>30</td>
<td>9</td>
</tr>
<tr>
<td>31.5</td>
<td>31.5</td>
<td>27.8</td>
<td>8.3</td>
</tr>
<tr>
<td>2</td>
<td>27</td>
<td>32.5</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>7.7</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>39.1</td>
<td>39.1</td>
<td>43.5</td>
<td>17.4</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>50</td>
<td>50</td>
<td>33.3</td>
<td>16.7</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>53.9</td>
<td>53.9</td>
<td>38.5</td>
<td>7.7</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>12.5</td>
<td>12.5</td>
<td>70</td>
<td>12.5</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>33.3</td>
<td>33.3</td>
<td>67.7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>57.1</td>
<td>57.1</td>
<td>28.6</td>
<td>14.3</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>33.3</td>
<td>33.3</td>
<td>67.7</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>66.7</td>
<td>66.7</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td>23 &amp; 29</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL 85 76 22 6 10 16 9 5 229
Table 17

B. Number of Books by Turnaround

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>CASPER</th>
<th>TURNAROUND</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROW PCT</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>27.3</td>
<td>21.2</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>33.3</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>22.2</td>
<td>66.7</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>33.3</td>
<td>50</td>
</tr>
<tr>
<td>5 - 10</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>16.7</td>
<td>50</td>
</tr>
<tr>
<td>TOTAL</td>
<td>19</td>
<td>25</td>
</tr>
</tbody>
</table>

Extension requests were not filled quite as promptly. Only 15.3% of the books and 23.7% of the journals were filled in one day. (Table 18) When two days were allowed, 35.5% and 46% respectively were filled. A large proportion, 38.5% and 46.8%, took over five days.
Table 18

A. Number of Journals by Turnaround

<table>
<thead>
<tr>
<th>FREQUENCY ROW PCT</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6 - 10</th>
<th>11 - 20</th>
<th>OVER 20</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>27</td>
<td>29</td>
<td>21</td>
<td>8</td>
<td>8</td>
<td>46</td>
<td>52</td>
<td>28</td>
<td>219</td>
</tr>
<tr>
<td></td>
<td>12.3</td>
<td>13.2</td>
<td>9.6</td>
<td>3.7</td>
<td>3.7</td>
<td>21.8</td>
<td>23.7</td>
<td>12.8</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>22</td>
<td>18</td>
<td>7</td>
<td>5</td>
<td>9</td>
<td>10</td>
<td></td>
<td></td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>30.9</td>
<td>25.4</td>
<td>9.9</td>
<td>7</td>
<td>12.7</td>
<td>14.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>19</td>
<td>11</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>43.2</td>
<td>25.4</td>
<td>9.1</td>
<td>2.3</td>
<td>2.3</td>
<td>6.8</td>
<td>9.1</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>43.8</td>
<td>43.8</td>
<td>6.3</td>
<td>6.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>41.7</td>
<td>16.8</td>
<td>16.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td></td>
<td></td>
<td>1</td>
<td>3</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>23.1</td>
<td>53.9</td>
<td>15.4</td>
<td></td>
<td></td>
<td></td>
<td>7.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>16.7</td>
<td>66.7</td>
<td>16.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>60</td>
<td>20</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>71.4</td>
<td>14.3</td>
<td>14.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>33.3</td>
<td>66.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>66.7</td>
<td>33.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 &amp; 14</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>40</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 &amp; 20</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>98</td>
<td>92</td>
<td>40</td>
<td>15</td>
<td>9</td>
<td>61</td>
<td>67</td>
<td>31</td>
<td>413</td>
</tr>
</tbody>
</table>
Table 18

B. Number of Books by Turnaround

<table>
<thead>
<tr>
<th>NUMBER OF BOOKS</th>
<th>EXTENSION TURNAROUND</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREQUENCY</td>
<td>1 2 3 4 5 6-10 1-20 OVER 20 TOTAL</td>
</tr>
<tr>
<td>ROW PCT</td>
<td>16 14 6 7 1 24 16 9 93</td>
</tr>
<tr>
<td></td>
<td>17.2 15.1 6.5 7.5 1.1 25.8 17.2 9.7</td>
</tr>
<tr>
<td>2</td>
<td>6 3 1 1 5 2 18</td>
</tr>
<tr>
<td></td>
<td>33.3 16.7 5.6 5.6 27.8 11.1</td>
</tr>
<tr>
<td>3</td>
<td>1 2 1 2 6</td>
</tr>
<tr>
<td></td>
<td>16.7 33.3 16.7 33.3</td>
</tr>
<tr>
<td>4</td>
<td>1 1</td>
</tr>
<tr>
<td></td>
<td>50 50</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>6-9</td>
<td>2 1 1</td>
</tr>
<tr>
<td></td>
<td>50 25 25</td>
</tr>
<tr>
<td>TOTAL</td>
<td>19 25 11 9 2 31 18 9 124</td>
</tr>
</tbody>
</table>

Such Extension percentages can be primarily attributed to interlibrary loan. (Table 19) Of the 162 requests that were processed through interlibrary loan, 98% took over five days and 40% of those took 11 to 20 days.
Table 19

Interlibrary Loan by Turnaround

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6 - 10</th>
<th>1 - 20</th>
<th>OVER 20</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROW PCT</td>
<td>121</td>
<td>122</td>
<td>56</td>
<td>24</td>
<td>10</td>
<td>35</td>
<td>17</td>
<td>4</td>
<td>389</td>
</tr>
<tr>
<td>INTERLIBRARY LOAN</td>
<td>31.1</td>
<td>31.4</td>
<td>14.4</td>
<td>6.2</td>
<td>2.6</td>
<td>9</td>
<td>4.4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TURNAROUND</td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>58</td>
<td>65</td>
<td>36</td>
<td>162</td>
</tr>
<tr>
<td>YES</td>
<td>0.6</td>
<td></td>
<td>1.2</td>
<td>35.8</td>
<td>40.1</td>
<td>22.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>122</td>
<td>122</td>
<td>56</td>
<td>24</td>
<td>12</td>
<td>93</td>
<td>82</td>
<td>40</td>
<td>551</td>
</tr>
</tbody>
</table>

Two additional points that may be of interest are included in Tables 20 and 21. Table 20 shows that almost 20% of the interlibrary loan requests were for faculty. Not surprisingly, at least 76% of the items requested were journal articles. (Table 21)

Table 20

Students and Faculty by Interlibrary Loan

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6 - 10</th>
<th>1 - 20</th>
<th>OVER 20</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROW PCT</td>
<td>36</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>69</td>
</tr>
<tr>
<td>COL PCT</td>
<td>FACULTY</td>
<td>52.2</td>
<td>47.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STUDENT</td>
<td>353</td>
<td>133</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>486</td>
</tr>
<tr>
<td></td>
<td>72.6</td>
<td>27.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>89.4</td>
<td>79.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>85.7</td>
<td>14.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td>0.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>395</td>
<td>167</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>562</td>
</tr>
</tbody>
</table>
Table 21

Interlibrary Loan by Type of Request

<table>
<thead>
<tr>
<th>EXTENSION</th>
<th>INTERLIBRARY LOAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOOK/JOURNAL ARTICLES</td>
<td>NO</td>
</tr>
<tr>
<td>FREQUENCY ROW PCT</td>
<td></td>
</tr>
<tr>
<td>CDL PCT</td>
<td>89</td>
</tr>
<tr>
<td>BOOKS</td>
<td>71.8</td>
</tr>
<tr>
<td>ARTICLES</td>
<td>286</td>
</tr>
<tr>
<td>68.4</td>
<td>31.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>375</td>
</tr>
</tbody>
</table>

Telefacsimile as an Alternative to Mail Delivery

Telefacsimile transmission is becoming a more popular way of sending information quickly. The quality of transmission has also improved substantially in the last few years.

The University of Wyoming Libraries in Laramie have obtained two telefax machines in the last year. One is being used in the Health Sciences Information Network (HSIN) Office to transmit information to health professionals at several sites in Wyoming and elsewhere. The interlibrary loan department had one installed in early June. It is an advanced telefax machine that will copy directly from journals and books, a factor that has been a problem with previous machines which would only transmit from sheets of paper, thus requiring photocopying the material first.

The ILL fax is being used, primarily, to transmit articles to the UW Casper library in an effort to cut the delivery time to less than 24 hours. The Casper machine is a Canon Fax 350 that can send only from paper copy, but since they are not sending journal articles to Laramie, it will be adequate for their needs.
It cost $2,847.00 (including maintenance) and uses roll paper that costs about .139 cents per page to receive. The ILL machine, on the other hand, is a Canon Fax 920 that cost $7,238.00 and uses plain paper. For sending articles the Fax 920 is a fine machine with excellent reproduction quality, but it is expensive. It was purchased because the book scan mode cuts down on staff time.

HSIN did a study of its transactions for the period of August 5, 1987 to March 29, 1988. The in-state portion of the study showed that the average transaction included four pages, took 3.24 minutes, cost seventy-five cents for telephone charges, took slightly less than a minute per page to send, and cost about nineteen cents per page for transmission. These transmissions occurred at all times during the day.

Conclusions

This study has shown that mail, regardless of type, travels very quickly in Wyoming. Distance within the state does not appear to be a factor, but weather can be. With Extension students and faculty, the U. S. Mail is an excellent method of filling requests since journal articles and books are sent directly to their homes or offices.

On the other hand, telefacsimile transmission of articles to the library in Casper may be an even quicker way to fill requests for faculty and students who are very near the library or stop in every day. However, the cost (based on the HSIN) study is about three times the cost of U. S. Mail.

The University currently participates in a Colorado courier service that delivers to Laramie and Cheyenne on Tuesdays and Thursdays. The service has been very useful, particularly when the OCLC request is timed right. The items might be received in a day or two. A courier service to travel around Wyoming, making stops at county and community college libraries, has been discussed, but the expense of a van plus a driver can hardly be cost effective based on the 207 book packages and 665 article envelopes mailed over a ten month period. The van could just make one circle of the state in a week.

In the future, students may be given a choice of how they want articles sent to them. As more and more businesses acquire fax machines and the State Library sets up its fax network within the state, students and faculty may have the option of fax transmission. At present, however, the U.S. Mail has proven to be quite adequate.
The Importance of Interlibrary Cooperation to Off-Campus Programs: A Case in Point

Lori M. Keenan & Janet Ross Kendall
Washington State University

In a recent major article on providing library support to off-campus programs, the authors delineate a working model consisting of three separate but complementary parts. These are: "use of a home library, a designated off-campus librarian, and agreements with nonaffiliated libraries" (Aguilar & Kascus, p. 35). The authors explain the function of each part of their model in the following terms:

The home library is the primary source of materials; the off-campus librarian is the primary means of access and delivery; and agreements with nonaffiliated libraries provide an enhancement of library resources and services at a specific location. (Aguilar & Kascus, p. 35)

The obvious logic of such an approach to the complex and expensive task of providing library support to learners and faculty at a distance is beginning to impact on librarians, as the present forum suggests.

Cooperation between libraries has existed for many years. As members of a service profession, librarians have, we believe, embraced the philosophy of sharing with more alacrity than have their counterparts in other sectors. But it was not until the late 70's and early 80's, when the era of retrenchment came upon us, that the profession was forced to begin actively and creatively to explore cooperation between libraries as a viable path to survival. Today, every state in the Union is part of some form of cooperative effort. The 1986 Report on Library Cooperation (Wareham) lists a number of cooperative programs ranging from reciprocal patron access to continuing education and training in which a remarkable number of libraries participate at the local, regional, state, and multistate levels.

Statistics such as the ones provided by the Report demonstrate that interlibrary cooperation is not a new or uncommon occurrence. The often drastic budget cuts of the last few years
have forced many libraries into cooperative resource sharing agreements. One need merely look at the proliferation of grants available for these ventures to gain a barometric view of the current cooperative climate. Yet while such agreements make eminent good sense on paper and often are able to coax even the most tight-fisted legislator into an uncharacteristic loosening of purse strings, they can be fraught with danger and should be approached with great care.

Perhaps the single most important step in any cooperative agreement occurs before it is ever entered into. Knowing what you want this arrangement to do for you and what you are willing to give for it are essential to the success of your venture. The more clearly this is spelled out, the better. Successful interlibrary cooperation depends heavily on communication, and good communication cannot take place unless goals and objectives are clearly stated.

Another vital means of ensuring the success of any cooperative arrangement is to view the whole as a business transaction. This involves drawing up a contract in which all elements of the agreement are fully spelled out. Such a document may be drawn up by an attorney, or it may be sufficient to have it evaluated by a neutral agency. In the state of Washington, the State Library's Office of Library Planning and Development will, upon request, make its expertise in this area available and will aid with the formulation and evaluation of any interlibrary agreement.

As with any other venture that involves growth and change, a mechanism for evaluating should be put in place. All partners of the cooperative agreement ought to set clear and measurable goals, which, during times of periodic review, will indicate areas of success as well as areas where revision needs to occur.

One excellent way of approaching any cooperative effort with another institution is to discover a grant that will be of mutual benefit to both parties. With the establishment of LCSA Title III programs, opportunities for obtaining monies for resource sharing activities now abound in all states.

The importance of interlibrary cooperation to off-campus programs cannot be overestimated. Through cooperative efforts programs can be enhanced in many invaluable ways. It is unfortunate that we do not as yet possess a national survey of U.S. extended library programs in higher education and are thus unable to gain a comprehensive picture of what is happening in this area. However, it is the impression of the authors that a
number of programs around the country have either formal or informal arrangements with other libraries to provide a wide range of services to off-campus faculty and students. These services range from simply placing reserve materials for specific course offerings at a remote library to having that library provide full reference service, including bibliographic instruction. The effectiveness of providing quality library services to off-campus clientele through cooperative library arrangements is the topic of this paper.

The state of Washington has a history of providing educational opportunities to its citizens through its 29 community colleges, 5 universities, and 1 college. It also has a history among these traditionally autonomous institutions of competition for students and resources that has at times degenerated into fierce "turf wars." In the late 1960's the Council for Post-Secondary Education was set up as an advisory committee to resolve "difficulties" among institutions. Dissatisfaction with its inability to solve problems led, in 1985, to legislation establishing the Higher Education Coordinating Board (HECB).

The purpose of the HECB is "to provide planning, coordinating, monitoring, and policy analysis for higher education in Washington in cooperation and consultation with the four-year institutions, the community college system, and other segments of post-secondary education" (Chapter 370, Washington Laws of 1985). These include "the review, evaluation and approval of proposals by the four-year institutions to initiate, modify, consolidate or terminate programs, on- or off-campus" (HECB Guidelines, December 1986, p.1).

To accomplish its mandate, the HECB prepared a master plan for Washington's higher education institutions and as part of its final recommendations, assigned Washington State University to develop branch campuses offering both graduate and undergraduate programs in Vancouver, Spokane, and the Tri-Cities area (Richland, Pasco, and Kennewick). In February 1988 the master plan was approved in concept by the Washington state legislature.

WSU has been offering graduate and undergraduate courses in Vancouver since 1983 and graduate programs in Spokane since 1982. However library support for these courses was on an ad hoc basis until October of 1985 when WSU Libraries formulated a proposal for library services to students in WSU Off-campus Programs. Recommendations arising from this proposal, which relied heavily upon the 1981 ACRL "Guidelines for Extended Campus Library Services", included among others, hiring of a full-time librarian to plan, implement, and evaluate library programs addressing the
needs of off-campus students and faculty; establishing a toll-free telephone service; placing reserve materials on site, if requested by faculty; and establishing and maintaining a separate collection of materials required for frequent off-campus use. With the exception of the latter, all elements of this proposal were eventually implemented and incorporated into the WSU Libraries' program for service to the Extended University campuses. A closer look at the programs in Vancouver and Spokane will provide a clearer picture of what level of library service is available to WSU students and faculty at these sites, and what part cooperative arrangements have played in the provision of that service. (At the time of writing, WSU has not yet received a formal mandate for assuming sole responsibility for courses offered in the Tri-Cities area. These course offerings were previously jointly taught by faculty from four separate institutions, and programs were administered on a cooperative basis. Although WSU-Tri-Cities promises to be an important element in WSU's developing campus concept in all aspects, including library service, it is premature to include it in this paper.)

**VANCOUVER**

Vancouver, Washington is located in the southwest corner of the state, across the Columbia River from Portland, Oregon. Although it is the state's eighth largest city, no four year higher education institution was ever established there. For many years, community colleges were able to meet the educational needs of the resource based economy. However, in the early 1980's economic changes resulted in major problems for the resource based industries; individuals who lost their jobs often sought education to help them find new positions. At the same time, an aggressive economic development campaign brought advanced technology industries to the area, and workers needed advanced education programs to keep up with the new developments. Demographic changes made it more difficult for many students to leave home and enroll in higher education programs in other areas. As well, many state and federal financial programs were cut, making it less possible for students to move to other parts of the state for higher education.

These changes resulted in the expansion of higher education opportunities in southwest Washington. In May 1983 the Southwest Joint Center for Education (SWJCE) was established. The Center grouped together WSU, a state college, and two community colleges; the original mandate was for advanced technical education, but two years later it broadened to include undergraduate, graduate, and continuing education programs in all academic fields.
From the beginning persons involved in the establishment of the SWJCE recognized that students in all academic fields would need access to library materials. Cannell Library, located at Clark College, a two-year community college on the same campus as SWJCE, proved the most logical choice for a facility to provide library service to WSU students involved in courses. The agreement entered into with Cannell Library specified that they would make space available for a small collection of technical material purchased by WSU as well as for reserve materials, provide reference service, undertake database searches, initiate interlibrary loans, and generally allow WSU students access to their library services. In return, WSU would pay the salary of a .5 FTE professional librarian and maintain a number of serial subscriptions.

Over the years, the arrangement with Cannell Library has undergone drastic changes. As WSU developed its extended library services program, allowing its off-campus clientele full access to its home campus collections through a toll-free number, free photocopying of materials, and rapid document delivery, it was able to assume more and more of the responsibility for providing quality library service. For the past two years, WSU Libraries have provided interlibrary loan and reference services, including bibliographic instruction and database searching, relying on Cannell Library staff to enhance these services, rather than initiate them. WSU Libraries have continued to utilize Cannell Library as a point of entry for access to materials by placing a CD-ROM index and COUGALOG, the WSU on-line catalog, in the facility.

The most serious and persistent problems in this arrangement have arisen out of the difference between the academic calendars of Clark College and WSU. While Clark College is on the quarter system, WSU’s academic year is divided into semesters; thus, there are crucial times during the school year, such as the beginning of the fall term when WSU students need to become familiar with their library environment, that operations on the Clark campus are completely shut down. Thus far, these differences have been resolved with yearly negotiations and creative rescheduling of library hours.

WSU has also sought cooperative agreements with other libraries in the Vancouver and Portland areas. Informal arrangements exist with Ft. Vancouver Regional Library, a large public library, and the University of Portland Library, both of which provide library assistance and materials to WSU-Vancouver students, faculty, and staff. Students are also able to use library materials at Portland State University if they purchase.
for a minimal fee, a library card. In return for these services, WSU provides access to its collection and has a free interlibrary loan policy for all institutions of higher learning in the state.

While WSU is in the process of planning a separate library facility for its Vancouver campus, it is anticipated that this will remain a fairly small, highly electronic "information center", with excellent and rapid access to periodical literature as well as to the WSU collection on the Pullman campus. Cooperative agreements with area libraries will continue to be strengthened in whatever ways appear appropriate. Initial negotiations for a research sharing grant with Ft. Vancouver Regional Library, Clark College, and the WSU Libraries are already underway. At this time it appears that the need for library services of WSU-Vancouver students, faculty, and staff have an excellent chance of being met more fully by reliance upon cooperative arrangements between WSU and a number of other area institutions, a statement that also applies to another of WSU's developing campuses, Spokane.

SPOKANE

Spokane, the state's second largest city, is located 75 miles north of the Washington State University campus at Pullman. Although the city and its environs is home to two small universities (one of them a private institution), two community colleges, and a well-established private college, studies conducted of the educational needs of the larger Spokane-area residents revealed a number of unmet needs. One recent study came to the conclusion that although Spokane has adequate and quality institutions, it lacks graduate level courses in engineering, high technology, and research, and that this lack has led to the perception that Spokane's economic development is being frustrated (Snyder, 1988).

Although Washington State University has provided public postsecondary degrees in the region since 1982, it was not until the HEC Board expanded WSU's mission to establish a branch campus in Spokane in order to be able to provide graduate programs, that the University was able to address Spokane's educational needs in a concerted and systematic approach. Currently, graduate programs exist in engineering, computer science, pharmacy, and educational administration and supervision. Other graduate programs, ranging from continuing and vocational education to accounting will be added in the next three biennia to further enhance graduate educational opportunities in the area.

It is obvious that the majority of graduate programs at both
Vancouver and Spokane require substantial library support. In addressing the challenge of how much support can best be provided in the face of very limited financial resources, it quickly becomes evident to planners at WSU Libraries that the Vancouver and Spokane situations are similar in at least two essential aspects: (a) the planned library at each site will be a small, highly electronic facility which will rely heavily upon WSU's on-campus resources, and (b) cooperation with existing libraries in the area will prove vital to the success of WSU's programs.

Fortunately, Spokane area libraries already have strong cooperative ties with one another and willingly extended those ties to include WSU. The Council of Spokane Area Libraries, COSAL, formed in 1977, is a consortium of all major public, special, and academic libraries in the area. WSU has been a member since December of 1987 and is able to participate in the cooperative collection development, resource sharing, and continuing education activities of COSAL. Beyond this, holdings of 16 Spokane area libraries are linked in a common database, SCOLIS. Access to these holdings and other library services is available through an INFOPOWER card, which can be obtained at no charge from any of the participating libraries. WSU Spokane students, faculty, and staff, if residents of the greater Spokane area, have full access to these services.

The history of WSU's arrangements for cooperative library services in Spokane dates back to the early 1980's, when the University first began to offer graduate courses in engineering management and electrical engineering there. An agreement was entered into with Gonzaga University, whereby, in return for a fee, they would provide classroom space, access to computers, and library services to WSU students in these programs. This arrangement lasted until the beginning of 1988, when WSU Spokane opened its own classroom and computer lab facility. Because of the excellent collection of engineering materials available at Gonzaga's Crosby Library, it was decided to maintain an agreement with Gonzaga for access to limited library services until WSU Spokane's own library facility is firmly established.

In the area of health sciences, WSU initiated the M.S. degree in food science and human nutrition in Spokane in 1985, and presently offers clerkships in pharmacy, and internships in communication disorders and nutrition. In the past, library support for these courses has come from the Intercollegiate Center for Nursing Education (ICNE), a consortium of nine participating hospitals and institutions of higher education for which WSU is the fiscal agent.
The ICNE Library has housed materials for WSU courses and has allowed students limited access to these materials. Until recently, WSU classes were taught at ICNE, but these classes are now being offered at the WSU Spokane Center, and library materials for all health science related fields are being transferred to that location.

The greatest benefits to WSU students of these arrangements with Gonzaga University and the ICNE were that library materials were accessible where classes were being taught. In the case of ICNE, non-WSU students also benefitted from the wider range of nutrition materials available to them. The majority of disadvantages associated with these arrangements stemmed from poor communication. The mere difficulty of informing staff who is a WSU student and who isn’t, and who has a right to what privileges, often proved frustrating to everyone involved and usually ended in students being told different things by different people. Frantic and even angry phone calls to the home front were the result.

However, even a cursory evaluative look at the history of WSU’s cooperative efforts in this area shows that the benefits to our off-campus programs far outweigh the problems. It is certain that the success of WSU programs at Vancouver and Spokane is attributable in part to the quality library services students are able to receive from outside libraries. As WSU establishes library facilities at its developing campuses, it is able to recognize and appreciate the role cooperation can play in enhancing service and access to resources for its off-campus clientele.

It is time that this role receives greater attention. We are sorely lacking research which explores the possibilities of combining the wealth of several libraries, at whatever level, for the purpose of enhancing off-campus programs. At the same time, we need further study on the demand these programs are making upon local library resources, either human or material. Finally, we would like to end with a summary of benefits and problems of cooperative, or as Paul Mosher through his extensive work with collection development efforts prefers to call it, collaborative agreements (Appendix A). Accompanying these are "Suggested Steps in Setting Up Cooperative Agreements" (Appendix B). Both sets of guidelines are adaptations from a workshop on cooperative collection development given by the Washington State Library in April 1988. It is hoped that they will prove useful in helping institutions involved in off-campus programs to set up mutually beneficial arrangements for library services. Truly, the age of cooperation is upon us.
References


Appendix A

Cooperative (Collaborative) Agreements

Benefits

- Greater opportunity to enhance library services to off-campus clientele.
- Greater opportunity to allow off-campus students to assume share of learning responsibility by independent use of library.
- Greater ability to focus limited resources.
- Greater opportunity for linking collections and establishing networks.
- Regular communication with collaborating libraries and among staff at both administrative and operational levels.
- Enhanced opportunities for grant monies.

Problems

- Need to guard against tendency to rely too heavily upon other libraries to do the job. This can present a problem in terms of accreditation.
- Possible negative budget implications in collaboration--administrators may underfund programs.
- Lack of clear communication about cooperative agreement may lead to misunderstanding, frustration, and resentment among students, faculty, and staff.
- Issues of "fairness" can be complex and difficult to resolve. Much attention must be paid to ensuring that all parties are satisfied with the arrangement.
Appendix B

Suggested Steps in Setting up Cooperative Agreements

- Define the needs of your program and determine how a non-affiliated library or libraries could prove instrumental in helping you meet those needs. Have a clear statement of your goals and objectives.

- For a bilateral agreement, begin by selecting a library or a person within another library with whom you can work. For an agreement comprising more than two libraries, begin by identifying the group, consortium, or network through which and with whose members you will work.

- Choose methods of work that will allow all partners to the agreement to know what to expect and also to monitor that the agreement is being carried out in practice.

- Write down the agreement, even if it is in a form as simple as a memorandum of understanding. Rely on your state library or other agencies that have expertise in this area for input on your agreement.

- Be sure that others who may be affected by the agreement have early and ample time to consider and respond to it. These may include technical services staff, interlibrary loan staff, and others.

- Submit the agreement for review and approval by the appropriate library manager and other administrators within your institution.

- After an agreement has been in effect for some time (in the beginning, at least once every six months), it should be reviewed by the participants. Any modifications or changes should be reflected in a redraft of the original agreement.
almost ad hoc basis. In Vancouver, WSU contracted with Kannell Library of Clark College, a local community college to house materials, provide a .5 FTE professional position, and some reference and reserve services. The original engineering program in Vancouver was supported by legislative funding for a "technical library" and some continuing funding for personnel and acquisitions. WSU Libraries' faculty consulted on the original development of the technical library, but continuing operations were the responsibility of Cannell Library personnel. Although purchased on WSU funds, technical library materials were acquired and cataloged by Cannell Library and did not appear in the WSU Libraries' catalogs. In the future, new acquisitions will be acquired, cataloged and processed at WSU Libraries in Pullman prior to shipment to Cannell Library for location and access.

In contrast to Vancouver, Spokane is served by higher education institutions beyond the community college level. Engineering and computer science courses and programs have been developed in cooperation with Gonzaga University, and WSU students in these programs have access to the Gonzaga University Library. Similarly, a cooperative nursing program has a separately staffed and funded center, known as the Intercollegiate Center for Nursing Education (ICNE). This center has a separately staffed and funded library facility, but the WSU Libraries purchase and catalog some materials which are housed in the ICNE Library. Such items do not appear in the WSU Libraries' catalogs.

Five state universities cooperate in the Tri-Cities University Center (TUC). Not administered by WSU, the TUC has a separately funded and staffed library, which has outgrown its physical facility. Materials have not been purchased either directly or indirectly by the WSU Libraries, but WSU holdings have been available to TUC students through interlibrary loan.

In 1984, the introduction of a master's degree program in education at the Vancouver center highlighted the problems with this laissez-faire provision of library support. The program was initiated without consulting the WSU Libraries, with chaotic results. Everyone involved discovered very rapidly that the education courses relied much more heavily on library resources than did engineering and computer science courses. It was also very apparent that the local community college and public libraries did not have collections to support graduate work in education. The WSU Libraries were immediately called upon to solve the problem, which we did, but unfortunately we had no real policies or procedures, let alone a plan, to provide library support to our off-campus centers. A partnership between the WSU Libraries and Continuing Education and Public Service (CEPS), the
university unit responsible for developing and monitoring off-campus programs, developed. Under aggressive leadership and with the help of many individuals contacted at earlier Off-Campus Library Services conferences, chaos became order. By the end of 1985, a plan for flexible delivery of materials and services had been developed. Under this plan, materials would be provided through a combination of on-site and "travelling" collections, with the on-site emphasis being on the provision of finding tools. Access to the WSU Libraries in Pullman was provided by dial-up access to the on-line catalog, site location of the union list of serials microfiche, and an 800 telephone number. Materials would be mailed directly to the user, avoiding traditional interlibrary loan. Underlying this plan was the rationale that a major research library could not be duplicated even once, let alone at multiple sites, so the central campus collections had to be available to all. Special or unusual services were needed to compensate for the otherwise unequal access to the collections. The plan was implemented in 1986 with no extra staff. It proved so popular that, in 1987, the WSU Libraries received funding for 1.5 FTE to be devoted exclusively to administering and providing library support to our off-campus students and staff and to expanding and refining the program.

Also in 1987, at the same time the WSU Libraries were receiving additional staff to provide library support, the state legislature gave WSU the mandate to develop the Vancouver and Spokane centers into a formal multi-campus system. The TUC was included too, but implementation of the administrative change was scheduled for a year later, in 1988. This move to multi-campus status has brought about some significant changes. The simple fact of an improved, formal status lends even more weight to the programs offered. Upper division undergraduate programs are being offered in Vancouver and resident instructional faculty are now being transferred or hired to work at the multi-campus sites. This latter development has created a significant difference in terms of library support. Previously the concern was provision of library services to support the curriculum. Now the WSU Libraries must also support the research and tenure/promotion needs of faculty researchers in a multi-campus system. Even the names have been changed. CEPS has become Extended Academic Programs (EAP) within the division of Extended University Services. We no longer talk of "off-campus" programs either. Full partnership with the Pullman campus is now indicated by "multi-campus." Perhaps the most significant change, however, has been the consolidation of responsibility for the development and provision of library support for a multi-campus system under the aegis of the Director of WSU Libraries. Formerly this responsibility was shared by the WSU Libraries, CEPS/EAP and local site libraries. Having formal
administrative responsibility has allowed the WSU Libraries the authority to begin and shape short and long-range planning, especially for the budget process. The original (1985) plan continues to be examined to see which elements can be retained, which should be altered, and which, if any, need to be eliminated.

As noted earlier, all three of the developing campuses have some form of on-site library facility, yet they are all in different stages of development. A centralized facility for WSU-Spokane has been developed and includes space for a small library/reading room. The intent is to bring most of the program offerings to this central facility (the nursing program being the exception) and to consolidate library support in the same location. While this is certainly an appropriate move, the library is hampered by the lack of any on-site staff to maintain and protect the collections. Pressures are developing to establish "full service" libraries in each location rather than maintaining staffed reading rooms. Realistically, it must be remembered that it is not financially possible to duplicate a full research library in three separate locations. Politically, such a demand would be legislative suicide. However, the growing concerns of the developing campus administrators and faculty on this topic must be addressed. The basic questions in this area are: a) how fast should the new campus libraries grow; and b) how large should they become?

Staffing problems are a major administrative concern, which also overlap into local site and campus political concerns. Gaining control of staffing means greater uniformity in the provision of services and greater control in establishing and applying policies and procedures. Provisions must be made to keep library faculty and staff on all campuses in close contact and to prevent isolation or overly independent action, divergent from a "system" concept. The transfer from contracted services to WSU site personnel also is a delicate matter, since loss of outside funding is always a blow to any budget.

This local concern must also be viewed in the context of inter-institutional politics. Although none of the developing campuses exist near research library facilities, all are located where there are local public and college libraries. It is reasonable to expect that some demand for library support will continue to be made on these libraries, regardless of the services provided by the WSU Libraries. Such demands obviously do not justify formal contracted services, but such local concerns must be acknowledged and addressed.

Campus politics also enter into the picture. Not everyone
on the Pullman campus is wholeheartedly behind the multi-campus development, and one of the first areas of concern that is mentioned is that of library support. Critics charge that it is obvious that adequate library support cannot be provided at a distance, especially without draining already strained resources from the Pullman campus.

WSU has begun to address some of these concerns on a campus-wide basis. In the fall of 1987, all major campus administrators devoted one day of a two-day leadership conference to discussion of concerns relating to developing a multi-campus system. Of course, library support was only one of the many issues raised, but having a forum in which to openly raise and discuss concerns did much to allay unnecessary fears. This same method was later extended in a series of meetings for all faculty on the Pullman campus.

These initial forums led to the establishment of a number of task forces on the WSU campus. One of the appointed task forces was on library services at developing campuses. This task force was made up of the Director of Libraries, the Head of Science Libraries, the Head of Humanities/Social Sciences Public Services, the Director of Instructional Media Services, the Head of Off-Campus Library Services, the WSU Libraries' Systems Librarian, the Head of the ICNE Library, the Head of the Tri-Cities University Center Library, a representative of EAPS, two teaching faculty members, and an off-campus research faculty member.

The Task Force on Library Services at Developing Campuses completed a comprehensive planning document, with the following major recommendations:

1. All developing branch campuses will rely on the main (WSU-Pullman) campus libraries for major library research resources and services.

2. The WSU-Pullman Director of Libraries and Executive Directors of the three off-campus centers will share final authority and decision-making responsibilities in regard to libraries and library personnel, but the Director of Libraries will be given signature authority for funds expenditure.

3. Small reading room library facilities will be provided at the WSU-Spokane and WSU-Vancouver sites and library space will be expanded in the Tri-Cities center, as there are fewer strong local library collections in the Tri-Cities. In addition, a potential merger of the Battelle Library (in Richland) and the Tri-Cities University Center Library will be explored.
4. Cooperative library agreements and contractual library services with appropriate area libraries to assist in provision of reference and clerical support, library resources, etc., will be formalized (e.g., written and signed agreements) to reduce problems and resentments arising from the informal agreements of previous years.

5. All on-site library facilities (and some of those area libraries with extensive contractual services) will be equipped with a toll-free telephone access to WSU-Pullman, search only capabilities to the Western Library Network (the WSU Libraries' cataloging utility) and COUGALOG (the WSU Libraries' on-line catalog), electronic mail capabilities, a telefacsimile machine, a photocopy machine, a microcomputer terminal to be used for related word processing and record keeping capabilities, a microforms reader/printer, and adequate seating and shelving if these are not already available on-site.

6. Each on-site reading room library facility will be equipped with adequate professional and clerical staff to cover needed hours of service and to provide limited public service assistance.

7. Adequate funding for periodic travel to and from sites will be provided to library personnel at all sites.

The Task Force Report on Library Services at Developing Campuses also identified and analyzed successful models for provision of library services to extended campus programs and then proposed an appropriate system for organization and delivery of library resources to be implemented by WSU. The final plan relied extensively on electronic transmission of requests for service and data delivery, but it also included the development of small reserve, reference, monographic and serial collections at each branch-campus site along with limited staffing to serve each site. The overall policy is that branch campus students and faculty are entitled to the same basic services as provided on the Pullman campus: efficient access to materials required for their courses; access to a wide range of monographs and periodicals needed for course research; basic and advanced reference assistance; access to specialized library services such as library user education presentations, computer literature searching, and interlibrary loan. The challenge in making such services available necessitates funding for provision of varied, innovative, and flexible services and variations in policies and procedures to accommodate differing access and assistance methodologies. A well-developed budget request was included in the report. The use
of WHETS (Washington Higher Education Telecommunications System), computer-assisted instruction, and other methodologies were recommended as considerations in keeping students and faculty informed of library resources and services, and of location, access and use of library materials and services. Because of funding limitations of the past and possible future fiscal constraints, the Task Force also included recommendations and suggestions for supplemental fund-raising and grant-writing activities.

The final report of the Task Force on Library Services at Developing Campuses was completed in early February so that it could be reviewed (prior to the university's biennial budget request to the legislature in June of 1988) by the Academic Senate's Extended University Services Committee (for policy development regarding branch campuses), the Associate Provost for Extended University Services' Multi-Campus Implementation Committee, and the University's Biennial Budget Review Committee for Branch Campuses. The result has been the support of branch campus development, particularly for libraries, as one of the highest priorities in the request to the legislature for university funding for the upcoming biennium.
Telephone Reference in an Off-Campus University Setting

Evelyn Leasher

Central Michigan University

In the library literature the term telephone reference is most often used in the context of quick answers to factual questions or ready reference. In our off-campus library program it is used in a different way with a very different emphasis. Although we occasionally have a question which is ready reference in nature, that is a very small part of the telephone reference we provide. We are primarily concerned with offering the same service a student would receive at a physical reference desk in a university library, which is help in finding the information immediately needed and teaching the techniques of library research so the student can effectively use the library in the future. We have to do this when the student has to travel further than to another floor of the library, or to the far side of the campus. At the same time we do not want our students to be deprived of the information sources they need because they are not on campus.

As any reference librarian will attest, a large part of reference work is responding to the immediate needs of students in search of an answer. Their physical presence in front of the desk is inescapable. In working with them, eye contact, body language, voice, clothing, time of day, look of interest or boredom or confusion all provide clues as to how to best go about helping this particular student with this particular problem. In trying to duplicate this service on the telephone, only voice is available in addition to actual words to help you know what response is appropriate. We do not even consider time of day a constant since we have students in different time zones as well as on different shifts at work.

As any student will attest, a large part of finding the answers you need from a reference librarian is working with one who has helped you before, or who looks interested in you and your problem, or is not busy at the desk with paper work or another student. Our students have to go only by voice when working with us and they too are deprived of the clues we find useful in knowing how a question is received and whether it will be dealt with promptly and competently.

CMU Off-Campus Library Services offers students reference assistance wherever they are taking classes. That is a deceptively simple statement which contains all kinds of
ramifications for the term reference service and for students and librarians. I have worked as a reference librarian for many years in many kinds of libraries and this setting was unique to me. In looking over my three years of working with off-campus adult students I still consider this one of the most interesting aspects of the position. In trying to formulate how we accomplish reference service using the telephone I have had to rethink and rewrite this paper several times. It sounds simple but when you consider the complexity of in-person reference service and then add on another layer, you realize if you thought about it you couldn't do it. Like the centipede who when he tries to coordinate all his legs, finds he can't walk.

The problems and opportunities we have are interesting. CMU has established telephone service for document delivery service and reference assistance. Document delivery is rather like using the telephone to order from mail order catalogs—you tell them exactly what you want and they get it to you—if it is in stock. Reference service is not like that.

Reference service is where the fun begins. We are no longer dealing with a set answer to a question—if we have it we will send it—but now we are taking into consideration a more complex set of circumstances. Since we are dealing with college students the majority of our questions are course related. That simplifies our task to a certain extent. Also, the subjects being taught are limited to administration in business, government, health, or education. Our students are adults, usually working adults. Those are the givens. The variables are almost too numerous to catalog.

Our students are scattered geographically, on different class schedules, working full time, with tight time constraints at home, at work, and at school. When they call us they have no mental picture of the library, the library program, the librarians, the university, Mt. Pleasant, and sometimes even of Michigan. For the most part the library is their only campus contact. On our part we do not have a clear mental picture of the student in his setting or of how she may go about getting information needs met. We have visited classes and have a general idea of our students in the classroom setting, but they are rarely individuals to us. We all proceed on our assumptions until we bump into reality.

The level of library service many students would like is a packet of articles and books on their chosen topic however poorly thought out and stated. (Send me everything you have on management.) The level of student participation we would like is
for the students to know what they want, express it to us in clear, library terms, and know how to get it and not bug us, except with their interesting questions. Somewhere in between lies what we do which is to try to provide access to the materials the students need.

Last year the Off-Campus Library Services librarians worked together to formulate a mission statement. We found that each of us was proceeding with our own assumptions and we wanted a unified statement of our goals so each of us could proceed from a common base. Our mission statement reads:

The Mission of the Off-Campus Library Services Program is to support the learning and teaching activities of students and faculty involved in Central Michigan University academic programs delivered away from the main campus through a system of quality library services; and to facilitate the acquisition of information gathering skills which can contribute to strong academic performance, job related responsibilities and self directed lifelong learning.

In order to accomplish this purpose we have listed as a goal:

Provide individualized research guidance and reference assistance.

a) Direct students to appropriate reference/resource materials and information sources.

b) Provide advice on library research methods.

c) Acquaint students with the existence of resources available to them locally.

d) Respond to specific reference questions and provide data and information gathered through the use of printed reference materials, computer databases and other sources.

With this statement we are more prepared to deal with students' questions. On a very busy Monday I have dealt with 30 questions. On a very slow Monday I have dealt with 5 questions. The statistics show a wide variety over a period of time:
These statistics are only student inquiries in which a librarian was involved. A few sample questions might give an idea of the kinds of questions we deal with.

1. Paul Peters from Kwajalein is working on a paper on how to treat industrial waste water disposal. There are no resources there to help him with the paper.

2. Mary Rogers calls from Key West, Florida. She is writing a paper on DRG's and their effect on hospital nurses. No library near her carries Hospital Literature Index or Nursing and Allied Health Index, either of which are what she needs to find articles. She knows what effect DRG's are having on her and her fellow nurses but she needs some background material.

3. Joy Moody from Troy, Michigan is doing a class presentation on seat belt use. She has personal experience of their use, has conducted a small survey on local use, and found a few articles. She needs some statistics and information about state laws regarding their use.

4. Ron Flowers from Livonia, Michigan is working on his final project paper. He has chosen to do it on quality circles in hospitals. His hospital is thinking of setting up quality circles and he is supposed to make the proposal about how it should be done.

5. Dr. Jack Humphrey is an instructor at several CMU centers. He is preparing to teach a new section in his Small Business class and wants a database search, with abstracts, on start up money for small businesses.

6. Kate Greene is taking a class in Parklane, Michigan. The instructor has asked each student in the class to find, read, and critique three articles from scholarly journals on the subject of organizational development. She does not know what the instructor means by 'scholarly journal' and if she did know she doesn't know how to go about finding one.
7. Joe Blume of Hilo, Hawaii is looking for some demographic data to backup his contention in a paper he is writing that the population in his county is getting younger. He thinks he sees this trend but needs some hard data to back up the marketing paper he is doing.

8. Gene Michaels from Minot, North Dakota is doing a paper on drug testing in the military. His research has led him to believe the government has held hearings on this subject but has not led him to specific information about when, where, or who held the hearings. Can we find this information and send him the hearings.

9. Mary Smith is working on her thesis in Hilo, Hawaii on the subject of underachievement in gifted children. She needs a database search.

10. Bill Stein of Wurtsmith AFB is working on his final project on machine vision systems for parts inspection. He would like to be sure he has found the most up-to-date information available.

A reference transaction, in our case at least, is always initiated by the enquirer. A librarian rarely approaches a person with an answer as they do on Jeopardy. However, as librarians we do sometimes get caught up with what we feel is the correct answer to a particular problem and as we deal mainly with students this is a trap easy to fall into. We have a standard answer and use it often especially when we are busy and find out later or not at all that this question needed a different answer. Since the reference transaction is initiated by the enquirer the first step in the reference process is listening.

In the telephone reference interview it is especially important to listen and to listen carefully since it is our only clue to our callers' needs. We cannot judge age, or nervousness, or rank by voice alone. Sometimes it is difficult to guess the sex of the caller, let alone the state of their tiredness. In person to person contact these things are (usually) automatic and the interview proceeds along the line suggested by the enquirer. When I first began to work exclusively over the telephone I really missed the personal contact but as I became more adept at interpreting oral communications I found I heard more and could compensate for the lack of eye contact, etc.
The next skill after listening which is practiced in telephone reference is questioning. After our student has told us what they are interested in, we then have to question to make sure we understand the topic. I am not afraid to say I know nothing about the topic and have the student explain the basics to me. Almost always it is necessary to negotiate the scope and content of the question. After determining the subject matter, we then need to know what the class assignment is; if this if for a paper—how long a paper; if it is for a presentation—how big a presentation, etc. When is this assignment to be turned in or presented. What resources has the student already tapped. For example, many students have already asked their company for information on a topic, or telephoned the company they are researching for an information packet, or been to their local library and searched, or have a file of articles on the subject, etc. If they have looked in the library what indexes have they used, and is the library located within a reasonable distance. We also need to know what the student expects from us. This information is usually arrived at before the call is finished in one way or another. Sometimes the information is volunteered, sometimes it is like pulling teeth to get an answer. Questioning is a skill needed in-person and over the telephone, the only difference being that in-person it can be done more gradually as you are consulting an index or a reference book together and over the telephone you have to pin the question down more precisely and with no shared resources.

After the listening and the questioning it is time to summarize the student's request. As I talk I take notes so I usually have the pertinent words in front of me. I repeat what I have written to be sure we both understand what has been asked for. There is usually agreement but it is well to pause and ask if it is correct. Any further questions about the service, or time lag, or cost, or what to expect can then be answered. This is also the time to get a weather report, hear about how class is going, and in general catch up on whatever is happening.

The reference interview on the telephone involves to one degree or another the basic reference procedures I have practiced for years a) listen b) question c) summarize and d) pause. I think listening becomes more important as non-verbal clues are eliminated and I find I concentrate totally on the student when I am talking on the telephone. The ideal end result of the telephone reference interview is a student who can proceed with this assignment, and one who has gained a knowledge of what to do should a similar question come up in the course of school or work life.
The satisfaction level with the library program is fairly widespread to judge by the comments we hear, solicited and unsolicited. The Director of the Institute often visits classes and asks for comments about the program. He often reports back that students are satisfied with the library service, and if our students were not satisfied they certainly would not report they were. When we visit classes we fearlessly solicit comments on the library service in order to demonstrate that it does work. Over the course of three years of doing this I have heard few negative comments and in general even if I haven't asked people will volunteer that they were amazed at the service when they called us.

Faculty also in general are pleased with the service which allows their students access to a wide variety of materials. After they have been with the program for awhile and have heard enough about the library services they become big boosters of the program to students and they demand more from their students in their papers and presentations. Faculty do not want information spoonfed to their students and they want students to learn for now and the future. We help that process along.

The telephone reference interview process is not simple as the in-person interview process is not simple. In trying to provide comprehensive library services to our off-campus students we interview them duplicating that in-person process as closely as possible. On both sides of the telephone the lack of visual clues is a handicap we try to overcome by understanding its presence and compensating for it.

The key to our whole program is caring that our student receives the best possible library service. In compensating for our lack of a physical presence we sometimes provide a service which our students feel is just as good or superior. We have developed our reference interview skills to better serve our students. We feel the service we provide helps our students receive a quality education.
References


Local Library Co-Operation at a Time of Austerity:

A Case Study from the United Kingdom

David T. Lewis

Sheffield City Polytechnic

The imposition of resource ceilings over the past decade has forced librarians of all kinds to examine and implement many forms of co-operation. In the United Kingdom as in many other countries there has developed a growing need for reciprocal support and co-operation between libraries in the face of a general recession and financial cut-backs. Even the wealthier universities in the USA are increasingly participating in resource-sharing programmes. The overall trend points towards the demise of the autonomous collection and an increased level of reliance on library co-operation as a means of meeting bibliographic need.

Obviously the pattern varies from country to country according to the overall scale of the country, the systems of transportation, the state of technological development e.g. on-line facilities, etc. Thus in the U.S.A. the various networks split the country up into geographical areas and time zones so that computer costs are rendered cheaper at off peak periods. In Britain we have an historical dimension with the Regional Library Bureaux system which is largely geared to geographical areas and which local interests often fight to preserve when it comes under attack. During a recent visit to Australia I was talking to someone who had been commissioned to advise on library provision in the Philippine Islands which probably present a very different set of problems which have to be thought through from first principles, taking into account existing systems of transportation and a wide variety of other local conditions. Library co-operation can, therefore, mean a vast range of options and priorities geared to both national and local needs, and the state of library development in a particular country.

The Local Approach in the United Kingdom

The first point to make perhaps is that very often librarians are not natural collaborators—they will talk about it ad-nauseam but it takes quite a lot of pressure at different levels to bring about real as opposed to cosmetic activity in this whole area. Sometimes, as with a difficult childbirth, co-operation has to be induced.
At root most people are "empire builders" and everyone tends to ask "What's in it for me or my organisation?" I don't think this is an unduly cynical view—but simply a question of being realistic and coming to terms with human nature, and in this context the recent financial situation has sharpened the interest in co-operation quite dramatically. This situation is by no means confined to the United Kingdom and I would refer you to an article by Barbara M. Robinson entitled, "Co-operation and Competition among library networks," (1980) which discusses the various problems which have given rise to the proliferation of these systems of co-operation. I would point out that the local schemes in the United Kingdom are not library networks as per the American definition—but are on the whole much more informal and more localised in their operation.

The Sheffield Experience

Sheffield is a relatively large city (population of 600,000) with a University large by United Kingdom standards (8,000 students F.T.E.) a Polytechnic (C.8,000 F.T.E.) and a wide variety of special commercial and industrial organisations e.g. The Health and Safety Executive, The Manpower Services Commission, The Midland Bank (H.Q.), together with a public library which has a long tradition of excellent service and particularly of co-operation through SINTO which was established in the 1930s and is the earliest formal scheme of local co-operation in the United Kingdom.

In the early 1970s the Department of Education and Science commissioned a research project on library co-operation in the city with a view to determining the scope for co-operation in service to user groups within the field of higher education in particular. It was partly as a result of this initiative that the present system of co-operation developed.

Nomenclature and Constitution

The umbrella organization is known as the Sheffield Libraries Co-ordinating Committee and includes as participants, the University, the Polytechnic, the City Libraries, and has recently been enlarged to include a representative of the Special Libraries in the city. It is nominally chaired by the Vice Chancellor although in practice the Chairman tends to be the Head of the Department of Information Studies acting on his behalf. Members include the Chief Librarians and the convenors of the various working groups where all the real work is done! The Groups are the main foci for the various activities and it is perhaps appropriate and probably more meaningful if I said...
something about these as they reflect the main emphasis of co-operation within the city.


This working party provides a forum for what is a very complex area of library activity. It has also enabled a degree of rationalisation within the city and a common approach to solving particular problems e.g. the production of a local holdings list. A very positive advantage is the informal contact among members which has often served in providing a better service to readers e.g. the lack of interest in the EEC publications was a matter of some concern and improved publicity was effected at the instigation of the working party. Exchanges of experience seminars are also organised on topics such as the Rayner Review on Government Statistics, etc. The working party has also directed its efforts towards influencing national bodies in respect of their policies on government publications and their exploitation. The British Library, the House of Commons and H.M.S.O. have all been contacted recently in an effort to influence policy on various matters.

The Sheffield Working Party on Media Resources

This body has a wide membership involving very diverse interests within the city. It serves as one of the major reference points for educational technology and as such is able to initiate various projects either collectively or through the individual expertise of its membership.

The primary aim of the group is to represent media-resources interests on the Sheffield Libraries Co-ordinating Committee and to assist and encourage liaison and the spread of information both locally and between professional and national groups. The specific objectives of the working party are as follows:

1) To list resources available locally, via the Directory of Audio-Visual Resources in Sheffield, the Library and Information Plan or similar methods.

2) To inform about resources or research projects developed locally.

3) To facilitate previews and awareness of resources.

4) To facilitate loans of resources or co-operative use of equipment where possible.
5) To share expertise
   - via a directory of expertise
   - by meetings, talks by invited speakers, demonstrations, workshops, exchange of experience sessions, etc.

6) To encourage the development and use of resources

7) To publicise or organise courses, training or awareness sessions and visits to centres of excellence.

As with other groups it has been extremely useful in establishing a forum for discussion and for the sharing of information and facilities in what is an increasingly expensive area of development.

Working Party on Resources

The main function of this group has been to compile a "Students Guide to some Libraries in Sheffield" which lists the holdings, members of staff and principal resources of the main libraries. Certain editions contain special supplements on PRESTEL or other such systems based on the Polytechnic or City Libraries. Bookmarks are also produced giving the opening times of the major libraries.

Working Party on Reference and Information Services

This group organises inter-library visits for various categories of staff and produces an annual staff directory. It also examines issues of common interest e.g. opening hours, charges for on-line searching, etc.

As from January 1983 these two groups together with that concerned with periodicals were amalgamated to form one new group entitled "The Working Party on Information Resources and Services." Other changes recommended by a specially appointed sub-committee of the SLCC included the redesignation of the Sheffield Libraries Automation Group which is to be renamed the Working Party on Information Technology and a decision that the research and development function should be assumed by individual groups as necessary rather than fall within the ambit of one particular group.

This ongoing review of the Working Group has been very valuable as it has enabled new areas of development to be
incorporated within the overall framework.

The Working Party on Education and Training

This group has developed largely due to the recognition of the need for a common approach to integrated training within the city. So far an attempt has been made to meet the needs of library assistants and middle management staff within specific professional areas. To date the following areas have been covered at different times:

- basic enquiry techniques (the programme is entitled "Face to Face" and is repeated with different groups.
- on-line searching techniques and in-house databases
- supervisory skills and interviewing skills
- exchange of experience afternoons and exchange of staff.

A small training fund is provided jointly by member libraries and this enables films to be borrowed and outside speakers to be paid as well as the provision of more expensive teaching materials. Apart from the obvious advantage of achieving a programme of staff training, this co-operative exercise also serves in breaking down barriers between staff in different libraries and has enabled staff undertaking similar functions to discuss their respective experiences. Future plans include the in-house production of training materials together with the listing of available resources in this area.

Problems in Local Co-Operation

One of the problems encountered in co-operation is that of maintaining momentum and in this respect the role of the Coordinating Committee is crucial. The Committee's role is to monitor activity, initiate ideas and to encourage and cajole if necessary. The retention of motivation amongst staff at different levels is also important particularly at a time of financial stringency and staff cutbacks. Every effort should also be made to avoid rigidity with its concomitant failure to accommodate new ideas and techniques. It is all too easy at a time of recession and job stagnation to slip into a particular mould of thinking and behaviour, and co-operative training should help to counteract this tendency. Finance for training purposes can be problematic although the informality of modular schemes of co-operation assists in circumventing some of these problems and can in fact save money for individual members.
Future Developments

It is becoming increasingly clear that there is a need for librarians of all kinds to co-operate more closely, not only with each other but also with other organisations within the community. A close working relationship should be developed and maintained with agencies of adult education, museums and the arts as well as the various voluntary agencies.

It must also be stressed that co-operation should never be seen as a substitute for adequate funding and this is certainly a danger in the present financial climate when library budgets are under scrutiny. It is also clear that co-operation is only justifiable in so far as it benefits users and it can absorb a great deal of staff time and energy if it is to be undertaken properly.

There is also a fundamental need to undertake research into the measurement of the benefits and costs of co-operation as opposed to non-co-operation. Practical problems relating to issues such as mutual access and reciprocal borrowing still remain in many localities but have largely been resolved in cities such as Birmingham and Sheffield.

In Britain over the last two years the government, through the agency of the Office of Arts and Libraries, has sought to develop local co-operation through what is termed a Library and Information Plan (LIP). Essentially the aim is to encourage libraries within a given region, usually a Local Authority area, to produce comprehensive plans for library and information services within their respective areas. In producing such plans it is hoped that gaps or overlaps in provision may be identified and that ideas for co-operation may be developed together with strategies for improving services generally. Although the Plans are local in nature, they constitute part of a series being carried out in various parts of the country. A decision was taken nationally to involve areas where co-operation was relatively well developed as well as regions where such activities had not previously been attempted.

The Sheffield Library and Information Plan

Sheffield was an area where co-operation was already well developed and was successful in receiving a grant from the Office of Arts and Libraries and the British Library. The grant amounts to some £8,000 pounds and has been supplemented by additional monies together with contributions of staff time by the larger
libraries in the area. A firm of information consultants has been selected and the first stage of the project is currently underway. This involves an assessment of current provision and a wide range of library and information providers are being asked for their views about planning and co-operation. A survey is being carried out involving a programme of semi-structured interviews and a postal questionnaire. Library and information units in the public sector, education, business and industry and the voluntary sector will be covered. An action group of librarians from the different sectors has been established and a steering group has been formed to give overall guidance and direction to the project.

Responsibility for implementing the Plan and its overall management will be undertaken by the Sheffield Libraries Co-Ordinating Committee. Monitoring of the Plan is considered to be crucial and it is hoped that further grant aid might be available so as to ensure that this is carried out effectively.

Essentially co-operation at a local level is seen as an underpinning of such activities at both regional and national levels. Ultimately, however, success depends very much on people and personalities who are essential to the development of successful co-operation at all levels.
Reference

Library Support for Off-campus Graduate Professional Programs at Domestic and International Sites

H. Maynard Lowry
Loma Linda University

Introduction

This paper will discuss the challenges of meeting the library resource needs of students working toward graduate professional degrees. The instructional environment for the respective programs offered by Loma Linda University's schools of Education and Public Health are distinctly different. The School of Education program, while off-campus, more nearly approximates traditional on-campus instruction. The program offered by the School of Public Health is more consistent with non-traditional off-campus programs. Each school offers its programs at domestic and international sites. The programs of the two schools will be compared and contrasted and the problems and solutions developed for providing library resources to the enrolled students will be discussed.

Off-Campus Programs and University Mission

The off-campus programs offered by Loma Linda University have typically attracted working professionals who wish to upgrade their skills and professional credentials. Programs in the two schools which currently offer off-campus course work are now centered at twelve domestic sites. Recently these two schools, Education and Public Health, have begun to offer extended campus programs at international sites. These programs have developed largely out of an institutional mission to support the educational and professional education needs of personnel working in a world-wide system of educational and health care facilities operated by the Seventh-day Adventist denomination. Loma Linda University is the largest and most educationally diverse institution operated by this denomination.

The University's most visible programs are offered in the health services. Of its ten schools, five have a health science focus—medicine, dentistry, allied health, nursing and public health. The University also supports an undergraduate liberal arts program as well as a graduate program, through the doctorate,
in education.

The University is accredited by the regional Western Association of Schools and Colleges as well as by some 20 professional accrediting bodies. Of the two schools which are the particular focus of this paper—public health and education—the former is accredited by the American Public Health Association. The School of Education carries no professional accreditation beyond that granted by the regional association.

Course Format and Delivery

The delivery format for courses offered by the two schools differ. The School of Education uses a traditional delivery format with on-site instruction by university faculty at host sites. These host instructional sites include three accredited, North American, post secondary educational institutions with existing library collections. Each has an adequate library collection in education and the related social sciences areas to support its own undergraduate teacher education program. The two of the international sites where the School of Education has established off-campus programs are also located at post-secondary institutions.

The delivery of course instruction for the programs of the School of Education resembles an on-campus summer program. Depending upon the course, instruction generally extends over a two to five week period with credit being granted proportional to the number of contact hours during the period of instruction. Loma Linda University faculty and local contact faculty present traditional classroom instruction and assignments which resemble those completed in any on-campus program. The educational program focuses on elementary education. The programs requirements include completion of 45 quarter hours of prescribed and elective academic work and successful completion of a comprehensive examination. Students enrolled in the program are generally employed elementary school teachers who hold the baccalaureate degree, but who wish advanced academic preparation.

The School of Public Health uses a non-traditional instructional format which incorporates independent study as well as intensive classroom instruction extending over a 10 week period. Each course begins with a period of four to five weeks of independent study centered on a class syllabus. This is followed by an intensive three to four day instructional session with Loma Linda, School of Public Health faculty at a midpoint in the course. With few exceptions, the instructor responsible for presenting the course on-campus also presents the instruction to
off-campus students in a traditional 10 week quarter. In this way a level of consistency and continuity is maintained between on-campus and off-campus courses.

With the completion of preliminary course readings during the first four weeks of the course, the students are prepared to discuss these during the intensive classroom experience. Students have the same number of face to face instructional hours with the faculty member as do on-campus students.

During the remaining period of the course, following the lecture and discussion meetings with the professor, students complete course requirements. These generally include written research papers. Generally student progress is also evaluated with end of course proctored examinations, similar to those given to on-campus students. The program focuses on two areas of public health—health promotion and health administration.

All students are adults and most are health professionals. Students with a background in the health professions (mainly nursing, nutrition and other allied health professions), must complete 48 credits of coursework for completion of the degree. Others without a background in one of the health professions may enroll in a 60 credit program.

International Instructional Sites

The development of programs at international sites is a relatively recent development. The School of Education recently introduced new off-campus programs in Australia and Costa Rica. A Canadian site has been in existence since 1981. The School of Public Health currently offers programs in Singapore, Haiti, Columbia, Jamaica, and Mexico.

With the increasing interest of developing countries in technical and health education, other inquiries and requests to establish additional off-campus sites have come to the University from several national governments. The primary interest has been to upgrade the education of health professionals in areas of health administration and health education.

While the instructional delivery format for the two schools mentioned above remains relatively consistent between the domestic and foreign sites, there are significant and contrasting problems. At the international sites these generally involve language and access to instructional materials. Access to appropriate library resources is a particular problem in the non-English speaking countries. Classroom translators are often necessary. While
instruction is given in English in Columbia, a majority of the students use Spanish as their working language. A similar problem exists in Haiti where the working language of the students is French.

Several factors which contribute to the success of the domestic program are considered as assets in making the international program work well. These include: [a] a student group which includes mature working professionals committed to the need for the program and well motivated to complete the program of independent and directed study; and [b] the fact that most students progress through the program together. The intensive instructional sessions provide a shared point of focus for students, a place to exchange views and experiences and a forum to discuss and analyze applied problems. Finally [c] the course format, including the intensive instruction and independent student work, meets the requirements of working professionals who have limited access to similar educational opportunities in the particular countries where they are located.

In contrast to the strengths and benefits of the program, there are recognized weaknesses as well. These include: [a] the lack of ready availability of instructors from the beginning of the students' learning experience and throughout the instructional experience is considered a disadvantage; and [b] a feeling among students that some personal/academic risk exists at not being able to size up the instructor outside the brief mid-course encounter. Finally [c] the relatively limited access to library materials for the completion of assignments and outside research is considered a disadvantage.

From an academic perspective evaluation of program results have been limited; however, a formal comparison of student performance in the public health statistics course shows no significant difference in the performance of on-campus students and off-campus students at domestic sites. No similar evaluation has yet been conducted at the international sites.

Library Role and Support

Perhaps as in some other institutions, the programs described here were initiated by the respective schools without much consideration to the library needs of students. But, several factors have worked together to incorporate a larger role for the University Libraries in this program. The concern of the schools for library resources has become a more salient issue for at least two reasons. First, the instructional intent of the program is to produce results which are similar to those achieved in the
on-campus format. Therefore, access to library resources has become an indispensable part of the program. Students have sensed the need for access to library materials and have welcomed the efforts of the University Libraries to meet these needs.

Second, the entry of state licensing commissions into the review and evaluation of instructional activities within their respective jurisdictions has increased institutional awareness of the need for readily available library resources to support off-campus instruction. Regional and professional accrediting agencies have been only marginally concerned with this aspect of the program in the past. But, the state agencies have been more concerned with the question of what constitutes reasonable access to library resources and have raised specific questions with the schools on this point.

The accrediting and licensing agencies mandates as well as a growing faculty awareness have created an opportunity for the University Libraries to take an active role in the off-campus programs. The dialogue about library services has included both the faculty and the librarians at the host site libraries. In addition to this dialogue, the shared experiences of librarians in other institutions with off-campus programs have been invaluable in developing library service strategies and procedures.

Discussions with program faculty and coordinators have focused on several needs. Among these are the local availability of library resources specific to the courses being taught. To adequately meet this need it has been recognized that advance planning is necessary. Course bibliographies obtained from the faculty responsible for the courses have been the starting point. Existing course bibliographies have been collected. Entries have been searched on OCLC and downloaded to disk. Using the Personal Bibliographic Systems1 (PBS), Bibliolink software, the raw data has been transformed into a data format usable by PBS' ProCite. ProCite is a "bibliographic information management system...designed specifically for organizing bibliographic references." With this tool it has been possible to prepare master author and subject bibliographies of all materials contained in the course bibliographies.

It was found that in some cases, course bibliographies had not been updated to reflect recent relevant publications. This library review of course bibliographies thus became the basis for assisting faculty in updating their course bibliographies.

One stipulation of the instructional contracts with the host institutions, cooperating with the School of Education, has been
that a fixed per cent of the contract payment will be specifically assigned to purchase local library materials. The course bibliographies have been used at the host sites as the basis for making these collection development decisions. In addition, the University Libraries have been given the responsibility to monitor the expenditures of these funds as at the host institutions.

The preparation of a student handbook for students in the School of Public Health off-campus program has been a valuable tool to create an awareness of library services. The handbook contains a three page section describing the resources of the Loma Linda University Libraries and the procedures for requesting materials and information. Access throughout North America is by a toll-free number.

Students are encouraged to determine the extent of local library resources as well. With the cooperation of the Office of Extended Programs in the School of Public Health, the University Libraries recently began to take a more proactive role in assisting students with the identification of local library resources. The student is expected to take the initiative in determining the availability and adequacy of local library resources to meet his/her needs. Each student, upon initial enrollment in the extended campus program, is required to complete a "library use plan." The plan requires that the student investigate and list those libraries with appropriate collections that are located within convenient distance from the student's home. The student is also required to indicate whether a user fee is required of non-affiliated users. Up to half the cost (to a maximum of $25 per course) of library service fees are reimbursed to the student. When filed, the plan also becomes the basis for the University Library to contact the respective libraries to introduce the student and make whatever arrangements may be necessary to assure service access.

Of particular value to this task is a series of publications supported by the National Library of Medicine (NLM). NLM coordinates a nationwide biomedical communication network of academic health science libraries organized into seven regions. In addition to the regional library in each of the seven areas, a group of second level "resource libraries" exists within each region. Many are directly connected with medical schools or large medical centers. These libraries in turn support a basic level network of hospital libraries as well as independent health professionals who do not have direct access to a library.

The "resource libraries" take an active role in promoting biomedical information access. Among the services provided are
reference, interlibrary loan, and on-line searching. Regional bibliographic tools and union lists of serials have been developed to facilitate resources sharing. Recently each of the seven regions has prepared a listing of the information services available from each of the "resource libraries" within the areas. Most "resource libraries" willingly provide a full range of information services to non-affiliated health professionals on request. The existence of this network of health science libraries has been of particular benefit to the School of Public Health off-campus program.

Library Support for International Programs

The adequacy of access to library resources is dependent upon the country in which students live and work. In general, Canadian students have reported few problems in securing adequate library resources. When problems have been encountered, they have usually been related to the completing papers which deal with local health and environmental problems. To make the course of study relevant to working health professionals, faculty have encouraged students to avoid American perspectives and to seek out information from the respective national perspective. But in some cases, even in developed countries, the scientific literature has not been well developed on unique national health and environmental problems.

One student who lived in both Hong Kong and Singapore during the period of his study confirmed the adequacy of library resources available to him, but said that students travelling from Indonesia to the Singapore site had considerable difficulty in locating some materials. In some cases, materials brought by the respective teachers to the lecture site were of assistance to students located remote from other library resources.

While the library resources in the larger urban center and especially in the national capitals may be good, these may not be available to students who come from locations at some distance from these centers. The first intent of the University Libraries' service program has been to fortify and support the libraries at the host institutions and instructional sites if these exist. However, in the School of Public Health program, few of the students are actually close enough to such libraries and cannot avail themselves of these resources. As a substitute, faculty have attempted to transport copies of articles and books to the international sites to compensate for the access problem. However, depending upon the type of materials, this solution is fraught with some ethical and legal problems involved with copyright.
International mail has been considered as a possible solution to solving the library access problem. However, cost and reliability of mail delivery presented considerable obstacles. The cost of airmail per half ounce is 45 cents to all countries other than Canada. Surface mail is slow and can seldom be expected to meet the time frame requirements of the enrolled students. The delays as well as the cost of mail service have been disabling objections to this mode of delivery.

At international sites an additional problem exists with the language of instruction and with the associated need for library materials. Students require access to materials in French and Spanish. These are not readily available from the University Libraries. In many cases such materials do not exist at all. This remains a significant problem area for the library service program.

Conclusion

Providing adequate library service support for graduate and professional students in a domestic and international context is a challenging undertaking. Developing services which will meet the needs of international students in particular is likely to be more a product of trial and error and evolution rather than planning. The experience of other institutions and feedback from licensing and accrediting agencies have been invaluable sources of information for developing the existing services. But, significant problems continue to elude solution for the present. These problems include providing access to materials in the language of instruction and timely delivery of library materials to individuals working on research projects at international sites.
Footnotes

1Bibliolink and Procite are available from Personal Bibliographic Software, 412 Longshore Drive, Ann Arbor, MI 48105.

An Accreditor's Perspective on Off-campus Library Programs

Terrence J. MacTaggart
University of Wisconsin-Superior

Introduction

The rather dun colored title of this presentation, "An Accreditor's Perspective on Off-campus Library Programs," might be improved with this addition: "Or How To Bring About A Renaissance In Nontraditional Learning: The Librarian's Role." I suggest this more grandiose title because I think the nontraditional movement in higher education is at a critical juncture in its history. It has reached a turning point. The movement will either maintain its creative, innovative and flexible response to the legitimate learning needs of adults or it will become increasingly stratified, rigid and less responsive to the unique styles and preferences of adult learners. I think that librarians and learning resource specialists can play a pivotal role in bringing about a renaissance in adult education, a renaissance characterized by renewed vitality and higher standards of quality than we have witnessed in the past.

Allow me to clarify my role as an accreditor. I am not an official representative of the North Central Association where I do most of my consultant-evaluator work or any other accrediting agency or COPA - The Council on Post-Secondary Accreditation. From that point of view I am without portfolio. Nevertheless, for the past ten years I have served as a consultant evaluator, initially with the Northwest Association of Schools and Colleges and for the past several years with the North Central Association. In particular, several of my assignments have been to examine nontraditional institutions. And on teams that address fairly traditional institutions, I am the fellow who is often asked to look at the off-campus program, or the continuing education activity, or their assessment of prior experiential learning. Thus, in the course of these ten years I have had an opportunity to examine the range of offerings of off-campus library services in support of these new programs.

My comments today readily fall under three headings. What is the role of the accrediting agency, particularly with respect to off-campus library services? Number two, as an accreditor, what am I content to observe in off-campus library offerings? What is the current state of the art? What is an acceptable level of performance? And thirdly, what would make this accreditor jump
for joy in an off-campus learning resource setting? The answer to
that third question constitutes the renaissance I mentioned a few
moments ago.

Role of Accreditation

What is the role of the accrediting body? Essentially,
accreditors have two functions. The first is to ensure the public
that good service is being offered in exchange for the public
reliance on and frequently public payment for that service. This
is the evaluative function of accrediting bodies or, if you will,
the certifying function. The second major role is to help
institutions to improve themselves, through self-evaluation,
through external review by the accrediting body and a report, and
through actions that may be taken based on those evaluations.
This is the consultative role of accrediting bodies.

Accrediting bodies are conservative agencies. Very
frequently, they lag behind innovations in the field. Thus, some
accrediting bodies are now referring explicitly to standards for
assessing experiential learning which developed some years ago by
CAEL, the Council for the Advancement of Experiential Learning. I
think most of us would agree that it is a good thing that
accrediting agencies remain modest in their statements because of
their immense power to modify institutional behavior. It is best
that this power be wielded very carefully.

I hope I do not sound like a critic of accrediting agencies
because I certainly am not. I believe that they are one of the
wonders of American higher education, and this is so largely
because of their self-restraint and because of what they have
prevented others from achieving. For example, accrediting bodies
could easily have become a kind of medieval guild which would
restrict entry of new providers and limit innovations. But, from
my experience, they have been rather open to change and open to
new ways of evaluating nontraditional programs. Some of their
critics, in fact, allege that they have been too liberal in
recognizing alternative ways of serving new populations.

Secondly, had it not been for the operations of accrediting
bodies, we could easily have found ourselves victims of a national
"ministry of education." By acting as kind of a buffer state
between the autocratic impulses of the central government, be it
state or federal, and the libertarian impulses of individuals
schools, accrediting agencies have helped us to preserve a high
degree of institutional autonomy.
The conclusion of all this is that we should not look, by and large, to accrediting agencies for leadership or innovation in educational practice. In fact, we prefer that they do not exercise that kind of action. Instead, they provide minimalist standards.

Off-Campus Library Services

What do accrediting agencies have to say about library services in off-campus settings? Quite simply, the answer is not much.

I have reviewed the accreditation handbooks, policy manuals, and special statements on off-campus programs and library resources issued by the major regional accrediting bodies. The following statements from the Accrediting Commission for Community and Junior Colleges of the Western Association (WASC) is more extensive than some but fairly typical. Its Standard No. 6 on learning resources says, for example, that learning resources ought to be "suited to a variety of student needs and learning styles," that holdings should be "sufficient in quantity and quality to meet the needs of students and the objectives of the institution," that holdings should be "balanced in direct relationship to the nature and level of curricular offerings," and that resources should be "adequately supported in relationship to the total budget." In instances where off-campus programs rely on libraries other than those of the sponsoring institution, this WASC guideline calls for explicit agreements with that cooperating library. The accrediting agencies use similarly general terms - adequate, sufficient, suitable, balanced - to describe standards for off-campus library services. The most prescriptive terminology lies in Standard 6 of the Accrediting Commission for Senior Colleges and Universities of WASC. Its infamous standard 6.B.2 reads that "the institution provides services and holds readily available basic collections at all program sites not serviced by the main library. Interlibrary loan or contractual use arrangements may be used to supplement basic holdings, but are not used as the main source of learning resources." The Western Association does not introduce any rationale that I am aware of as to why these cooperative arrangements, loan arrangements and so on, if they are adequate to the task, cannot be the "main" source of materials. Aside from general statements, other accrediting bodies have been content to leave judgment of the adequacy of library resources up to the institutions and individual accrediting teams.

Clearly, if we rely on the announcements of accrediting
agencies alike, we will not find much specific direction for the quality of off-campus library services.

**Adequate Services**

What satisfies me as an accredits when I examine an off-campus program? In responding to this, I must say I am indebted to the many earlier presentations offered at these conferences. The components of an adequate library support system for off-campus programs would include:

1) Where practicable, an agreement with local municipal, military, college, or university libraries for students and faculty use. These cooperating libraries need to have collections that are relevant to the curriculum being offered. The Off-campus program needs to have meaningful input into acquisition decisions of the cooperating library. Ideally, the agreement would be one which would help ensure a long-term relationship between the cooperating libraries. This is not a heady set of demands, but the sponsoring institution should be willing to pay for the services provided by the cooperating library.

2) In most instances there should also be a site-based collection of library and learning resources. At the very least these would include basic references suitable to the curriculum. The site should also provide the capacity for database searches.

3) There should be an efficient, timely and free retrieval service which would allow learning resources to be sent from the main campus to the off-campus location. This implies, of course, that the main campus has developed multiple copies of sufficient resources so they can meet demand from different sites at the same time. I must say that Central Michigan University is to be complimented on its leadership in establishing a first-rate system of access to library materials.

4) The fourth characteristic of adequate support is the availability of trained staff on site. If the site is large enough, then it should be able to support a full-time librarian. Otherwise, a circuit rider approach may be necessary in which that librarian is available on a scheduled basis.

5) The fifth feature of strong off-campus programs is evidence of active involvement by the library with faculty, staff and students to ensure that all groups are knowledgeable of the resources available through the learning resource center. Guest lectures, special workshops, and publications which call attention
to learning resources are all necessary.

6) There should be evidence of a close link with the curriculum being offered. This is a manageable task, particularly because so many off-campus programs have a specialized curriculum.

Development of Off-Campus Services

If these features would satisfy an accreditor, what would really ring his bell? Before responding to that question, let me put the development of off-campus library services into a developmental context. Based on my experience with these sorts of programs over the last 20 years, I can envision three phases in their development.

The first is the primitive or, to use our historical analogy, the Dark Ages of off-campus library services. Off-campus academic programs at this stage were developing so fast that there scarcely seemed time to build the learning resource infrastructure. There was such competition, particularly in the military base offerings, that harried administrators were more anxious to open up new sites than to build quality programs at existing ones. Reproducing a comprehensive array of library services at off-campus sites seemed impossible. What resources were provided were frequently irrelevant or inadequate. I know of one institution, for example, that began by sending five books per course to each off-campus site. It could hardly be regarded as a library resource but rather as a set of "outside readings."

When access to local libraries was provided, it was very often not by specific written agreement but merely available to the students in the program as it might be to any citizen in the region. Moreover, access to a municipal library in a small town or an on-base military library was frequently a wholly inadequate substitute for a comprehensive academic library. In these early dark days, "loan" services were often so slow that the books arrived well after the course had been completed. In some instances, where the will to provide adequate resources was present, knowledge of the way to do so was not. Particularly if off-campus programs that had highly student-directed courses of study, program managers were uncertain as to what appropriate library resources would be.

Fortunately we are beyond the Dark Ages in this arena and any institution which supports an off-campus program with such minimal resources would be wholly unacceptable today.
The current phase, which I would call the Late Medieval Period (which was actually a time of economic prosperity and relatively high cultural and intellectual achievement) is one characterized by appropriate agreements, local resources based at the site as well as an efficient retrieval system, along with the other characteristics that I mentioned earlier. Some institutions, like Central Michigan, have achieved this standard while others have yet to implement it fully.

Renaissance in Off-Campus Library Services

What is the next stage? What is the Renaissance that I referred to earlier? Essentially, it involves not so much the addition of more resources at the site but a radically altered role for the librarian. It involves a movement of librarians and library resources from a supporting role to the center-stage role in these adult learning programs.

Why should this come about? The reason, I think, is that there is a widening gap between the theory of adult learning and its actual practice, and librarians are uniquely positioned to fill this gap. The theory is familiar. It is characterized by numerous slogans pointing to fairly verifiable reality. We are told that adults are particularly highly motivated, that they prefer courses of study which allow them to exercise self-direction, that they recognize the world around them as a learning resource to a much greater extent than younger students, that they are in fact competent learners already although perhaps not yet competent in the academic sense of that term. I think that all of these characteristics are included in the concept of life-long learning. But, are these features reflected in off-campus programs? My sense is that we are seeing more stratified, rigid degree programs in which, in fact, fewer choices are available to students. In part, this may be due to pressures from some accrediting agencies which, as I suggested earlier, are conservative bodies better prepared to evaluate traditional forms of instruction than nontraditional ones. I think institutions have turned to more traditional off-campus programs because they are comfortable and familiar and because very frequently they can be delivered in more cost-effective ways than the individualized approaches. If this trend continues, we will have gained a kind of standardized quality at the sacrifice of creativity and innovation which sparked nontraditional programs in the early days.

I think some of that creativity, some of that wonder in learning experienced by adults, can return if librarians take a
more assertive and even aggressive stance in the development of these off-campus programs. To do so, librarians must transcend their sometimes passive role as "providing support systems" for the faculty and assert themselves as full-fledged members of the educational team. In an information society, it is more important than ever that our students, particularly adult students, become adept at accessing new worlds of information. Faculty play a critical role in this, but I think librarians can play an even more critical role in linking learners with the vast and dynamic world of information which surrounds them.

How is this to be done? The answer is partly political and partly pedagogical. On the political side, I think librarians need to work effectively with administrators, faculty leaders and other decision makers in presenting themselves as active agents in the learning process. I think they also need to work carefully with individual faculty members as equals in the production of learning.

On the pedagogical side, I recommend a number of steps:

1) That librarians join with instructors, and this is maybe particularly feasible with new and adjunct professors, as a team in the learning process.

2) That librarians become involved during the course design phase rather than as an adjunct at a later time.

3) That librarians encourage faculty to assign students exploratory research rather than simply outside readings.

4) That the outcomes of the exploratory research be a description of the process in which the students uncovered heretofore hidden information.

5) That emphasis be placed on using the new technologies, particularly those which are called data-base searches, so that all students have first-hand experience with this intellectual process.

6) That students be asked not only to identify but to become versed in the specialized libraries which affect their disciplines, law libraries, medical libraries, and so on.

7) That more independent studies be centered around identifying and using exotic learning resources, that a focus be given to the process of acquiring information as opposed to summarization and that librarians be active in managing these
independent studies.

8) That as a component of internships, students be required to be familiar with the key research materials that support the field in which they are interning. These might include state statutes, federal publications, administrative law publications, industry publications, and so on.

9) And finally, that capstone courses would require close work with the librarian on the research pertinent to the field. The objective is that students would be able to access themselves to state-of-the-art information regarding their area of study and become aware of new trends and cutting edge issues in the field.

These are merely examples of ways in which librarians can become more effective. This initiative would not only inspire accreditors, it would help bring about a renaissance in nontraditional education.
Extending Information and Educational Services to Rural Communities:
The Intermountain Community Learning and Information Services Project
Kenneth E. Marks, Steven P. Nielsen
Bryan Spykerman, Glenn R. Wilde
Utah State University

Introduction and Overview

In November, 1985, the W. K. Kellogg Foundation awarded $2.7 million to implement the Intermountain Community Learning and Information Services (ICLIS) project in four intermountain states—Colorado, Montana, Utah and Wyoming. However, this award resulted from five years' developmental work within the rural communities, within the state universities and within state libraries. What began as a concept to provide educational and informational services to rural residents utilizing the rural public library as a delivery system is now becoming a reality through structured processes of implementation. The project is based on five objectives: (a) the delivery of new educational and informational services which meet the needs of rural residents; (b) the development and/or acquisition of shared educational and informational services for delivery to rural sites; (c) the training of local Community Learning and Information Specialists within the public library to support informational services and educational programs in the local community; (d) enhancing the support for rural services development among other public and private sector organizations; and (e) to develop a public sector/private sector partnership to support education and increase economic opportunity.

This article presents four stages of the developmental processes: (I) Community Development Processes; (II) Assessment of Rural Needs; (III) Technology Implementation; and (IV) Library and Information Services. A final section provides a summary and recommendations.
I

Community Development Processes

Innovations, such as the ICLIS project, are not easily accepted or adopted by organizations or institutions. This is especially true of innovations which have the potential to change institutions with long-standing traditions such as the public library. Nearly every western town has a public library which has long served the recreational needs of the community, as well as some patron needs for reference materials and technical information. But residents of these small western communities were "generally satisfied" with the kinds of library and information services that have been provided. These observations, perhaps, are true of rural libraries in other regions of the country.

For information which might solve an individual or community problem, rural residents, at least in our western states, rarely consulted the public library. Instead, residents have consulted with county extension agents, state and federal agencies, and private organizations as mediums through which problem-related information was solicited. As found in our 1982 surveys of community residents, over thirty percent of the respondents either sent for information or actually went to a metropolitan or university center to get the information they needed.

This, then, was the context in which the ICLIS project was conceived. ICLIS was a concept which would lead to the development of the rural public library as a learning and information center. It was a concept embraced by some in continuing education at the university who were concerned about maintaining the quality of off-campus course delivery; by some at the state libraries who perceived the opportunity to instill new vitality and support for the public library; and by some in federal information agencies who saw the opportunity to deliver information to better serve societal needs and extend government services.

There was another context which is perhaps more consequential to the acceptance of ICLIS than any other factor, and this, perhaps, is not shared outside the energy regions. The 1974 energy crisis and the escalating costs for gas, oil and coal created a boom in our western communities. Sleepy towns were traumatized by population growth, and with population growth came the demands for services, schools, roads, water systems, sewage systems, trained workers, and housing, among other demands of the new populations. There was optimism and affluence when oil was
over thirty dollars a barrel. Energy towns—Evanston, Gillette and Rock Springs, Wyoming; Vernal and Price, Utah; Rifle, Colorado—grew topsy-turvy in the early years of the boom cycle. Planning energies were directed to just "keeping-up" with demand.

By the early 1980's, however, the demand for oil slumped; prices began slackening; and community planning—though somewhat late—began in earnest by elected officials, county and city managers and planners as these people confronted the high costs of development. There were, of course, numerous impact studies conducted by the university, state and private sector groups during these processes of rapid development—some of which were shared with the community officials while others were collected in massive research reports which adorned the bookshelves of faculty offices, state agencies and consulting firms.

This energy context, in and of itself, was a central marketing strategy for presenting the ICLIS concept to county commissioners or city councils in early 1980. Still optimistic about their energy future, these elected officials acknowledged that to have access to more information to assist them in planning and community decision-making was essential to make more "informed" decisions—or, perhaps, in other words, "to make less costly mistakes." This, in a nutshell, was our marketing strategy: the ICLIS project matched need for information and education with opportunity for delivery. The proposal submitted to the W. K. Kellogg Foundation stressed that boom and bust cycles were a part of rural life. The development of the rural library as a learning information center would support the current and future needs of rural Americans.

The actual processes of introducing the concept into the community follow those used for over seventy years by the community development specialists of the Cooperative Extension Services. These methods are pragmatic, but they have worked within the traditional decision-making contexts. Working closely with state libraries, the ICLIS project team identified several potential communities within the project states based on the following criteria:

1. The community had a public library facility with space available to accommodate the informational and educational technologies to be installed;
2. The community had a positive and potentially innovative librarian and library board who were not afraid to implement innovations in service;
3. There was a willingness of the county commissioners, city council or area association of governments to embrace the
concept and implementation; and
4. The rural community was experiencing or had experienced an impact of population growth or economic development.

Following the preliminary site selections and some on-site investigation by a team comprised of university, state library, and Cooperative Extension community development specialists, discussions with the local librarian and library boards took place to determine the most likely community sites to initiate the pilot projects. Attitudes toward change and innovation from the librarian and the library board were the most important factors in selecting the community sites. These processes, which took about six months to complete, included formal meetings at which the concept was discussed. Informal discussions, especially with state library personnel, validated information and perceptions leading to the final site selections. Finally, two pilot sites were selected in each state.

Nevertheless, the processes to move us toward acceptance of the ICLIS innovation were just beginning. Again, the ICLIS development team, through the contacts provided by the Extension Community Development Specialist, met with elected officials to discuss the project and to seek approval to conduct a survey of community educational and informational needs, using an instrument we called a Community Interest Inventory. These processes took approximately two months to complete. The trust in the Extension Community Development Specialist by these elected officials was an important factor in gaining approval for the project.

The third step in the cultivation processes was to create community awareness. This was accomplished in several ways:

1. We developed a multistate video tape called "A View to the Future," in which two central concepts were presented. The first concept was that of change, showing that this so-called Age of Information would affect society as deeply as the Industrial Revolution of the nineteenth century; the second concept illustrated how the library as a learning and information center could link the rural resident to informational and educational resources using computers and distance education technologies. This tape was presented before various community groups, including school district personnel, Chambers of Commerce, Rotary, business and professional organizations, among others locally identified. We encouraged community discussion of the issues of building this resource of the future.

2. We used the media to report the discussions and the concept to the people in the community to encourage discussion.
develop support groups, and build consumer awareness concerning
the potential of the project. In Utah, we also demonstrated how
the improved library and informational services would support the
educational programs being delivered by Utah State University to
the communities; and,

3. An on-site visit by the W. K. Kellogg Foundation
program leader proved advantageous, for it provided residents
evidence that there was interest by the Foundation in supporting
an innovation with such broad potential. The program leader's
visit also culminated with the commitment of the elected officials
to support the project—a final stage before implementation.

These were the stages of development and of marketing.
Between the time of initiating the public awareness campaign in
1982 and the time the W. K. Kellogg Foundation awarded the grant
in November, 1985, were several uncertain years in which the
project almost fell apart because of lack of visible progress
toward implementation. The problem became one of credibility of
the project planners and initiators. The only method to provide
any reassurance was to maintain the contacts among the state
institutions, to make presentations at national conferences, and
to keep the community sites informed of actions taken by us or the
Foundation.

Throughout these long and tenuous processes of development
and funding, the states and communities (with exception of two
which were replaced in Montana) remained committed to the project.
The ICLIS project teams, of course, had some personnel changes
over this period which adversely affected continuity, but
adjustments were made by the state libraries and universities. By
August, 1986, ICLIS had appointed its staff for community, state
and multistate operations and had commenced training and services
to communities.

Admittedly some problems remain. The optimistic elected
leaders have in some communities been replaced by pessimistic
leaders who have no memory of agreements or commitments made to
the continuance of the project. Nevertheless, we continue to make
progress and to serve needs. We are developing strategies to
further the local investment in and adoption of the ICLIS
innovation; some of these activities are directed at the local
decision-makers and decision-making groups.
II

Assessment of Rural Needs

Identifying and Responding to Rural Information and Education Needs

A major concern for the ICLIS project has been the identification of the information and education needs of rural communities so that project programs and services can be oriented towards meeting those needs. This section describes some of the needs assessment efforts of the ICLIS project and presents a brief summary of the results of interviews with rural residents concerning their information and education needs. The section concludes with a discussion of some of the problems encountered when assessing information and education needs.

Formal Needs Assessment

Shortly after the initial funding of the project in 1985, a needs assessment interview schedule was designed with the help of outside consultants. The interview schedule attempted to measure the respondent's perceived needs for information and education and to assess potential needs that might result from requirements for occupational updating, recertification or job changes. The interviews also sought information of the respondent's use of information and education resources already available in the community.

The ICLIS Community Specialists selected a systematic random sample of 100 potential respondents from the local telephone book. Telephone interviews were conducted during October, 1986 in the eight ICLIS communities, which resulted in 675 completed interviews (one specialist reported data in summary form and those results are not included in the tables below). Although the sampling process was not carefully supervised and the problems of selecting samples from telephone books are well known, the sample is probably adequate to provide an overview of local needs.

Results

The ICLIS communities are very small (See Table 1) and relatively isolated from large metropolitan areas. The populations of most of these communities have gradually declined since the 1980 census due largely to a downturn in local economies which depend on energy and other extractive industries. The information and education needs of residents of these communities reflect these factors of remoteness and economic change.
Table 1

Populations of ICLIS Communities in this Study

<table>
<thead>
<tr>
<th>Community</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRICE, UTAH</td>
<td>9,086</td>
</tr>
<tr>
<td>VERNAL, UTAH</td>
<td>6,543</td>
</tr>
<tr>
<td>MEEEKER, COLORADO</td>
<td>2,356</td>
</tr>
<tr>
<td>CRAIG, COLORADO</td>
<td>8,133</td>
</tr>
<tr>
<td>HAMILTON, MONTANA</td>
<td>2,596</td>
</tr>
<tr>
<td>LIBBY, MONTANA</td>
<td>2,629</td>
</tr>
<tr>
<td>RAWLINS, WYOMING</td>
<td>11,552</td>
</tr>
</tbody>
</table>

Occupation Related Information and Education Needs

The changes in economic conditions, the transformation of job requirements resulting from the introduction of new technologies, and the desire for occupational advancement all contribute to an increased need for information and education related to work. The analysis reveals that many rural community residents have work related information needs. About 42% of the respondents stated that their occupation requires periodic updating. Although some of this updating is probably received through employer training programs or professional organizations or journals, some occupations such as teaching require re-certification or updating from educational institutions.

About a third of the people interviewed had recently considered changing jobs. In response to probes about employment possibilities, over half (53.6%) of those who had considered changing jobs had not decided what kind of job they would like. The majority (82.6%) indicated they were willing to learn new job skills. Two-thirds (61.7%) of those who were considering changing jobs stated they would need more information before they could make a decision.

These findings reinforced those other Kellogg funded library projects had found about the importance of information relating to occupations and career planning. Many of the ICLIS community sites have now improved their linkages with career counselors and are providing computer programs such as SIGI+ or Discover to assist patrons in making career decisions.
Educational Needs

The need for greater educational opportunities in rural areas is reflected in Table 2. Although younger and older people fare better in terms of meeting educational needs, over half (53.9%) of the respondents aged 26 to 39 reported that their educational needs were not being met. Overall 43.8% of these rural residents claimed to have unmet educational needs.

Table 2

<table>
<thead>
<tr>
<th>AGE</th>
<th>18 TO 25</th>
<th>26 TO 39</th>
<th>40 TO 59</th>
<th>60 &amp; OVER</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>63.2%</td>
<td>46.1%</td>
<td>60.0%</td>
<td>73.8%</td>
<td>56.2%</td>
</tr>
<tr>
<td></td>
<td>(43)</td>
<td>(125)</td>
<td>(120)</td>
<td>(62)</td>
<td>(350)</td>
</tr>
<tr>
<td>NO</td>
<td>36.8%</td>
<td>53.9%</td>
<td>40.0%</td>
<td>26.2%</td>
<td>43.8%</td>
</tr>
<tr>
<td></td>
<td>(25)</td>
<td>(146)</td>
<td>(80)</td>
<td>(22)</td>
<td>(273)</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>(68)</td>
<td>(271)</td>
<td>(200)</td>
<td>(84)</td>
<td>(623)</td>
</tr>
</tbody>
</table>

Note: Frequencies are in parentheses.

Respondents were asked to list their learning or educational needs. These responses were compiled into more general categories and are displayed in Table 3. Higher education was the most often cited need with a third of the respondents listing it. Among the more specific requests cited, business, computer and self-help educational programs were listed. The frequency of people listing needs for education related self-help, leisure, gardening and so forth demonstrates that rural residents are not interested in education solely for economic return, but also for personal enrichment.
Table 3

What are these learning or educational needs?

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Pct of Responses</th>
<th>Pct of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching (K-12)</td>
<td>6</td>
<td>2.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Education For a Better Job</td>
<td>13</td>
<td>4.3</td>
<td>5.5</td>
</tr>
<tr>
<td>Self Help</td>
<td>36</td>
<td>12.0</td>
<td>15.1</td>
</tr>
<tr>
<td>Leisure</td>
<td>9</td>
<td>3.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Nonsense Replies</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Computer Related</td>
<td>27</td>
<td>9.0</td>
<td>11.3</td>
</tr>
<tr>
<td>Music Related</td>
<td>7</td>
<td>2.3</td>
<td>2.9</td>
</tr>
<tr>
<td>Higher Education</td>
<td>89</td>
<td>29.8</td>
<td>37.4</td>
</tr>
<tr>
<td>Gardening</td>
<td>5</td>
<td>1.7</td>
<td>2.1</td>
</tr>
<tr>
<td>Sr. Citizens Info.</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Welding</td>
<td>3</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Real Estate</td>
<td>3</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Investments</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Home Improvement</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Agriculture Related</td>
<td>4</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Fitness</td>
<td>2</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Biology</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Nursing</td>
<td>5</td>
<td>1.7</td>
<td>2.1</td>
</tr>
<tr>
<td>Business Related</td>
<td>45</td>
<td>15.1</td>
<td>18.9</td>
</tr>
<tr>
<td>Counseling</td>
<td>6</td>
<td>2.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Engineering Related</td>
<td>5</td>
<td>1.7</td>
<td>2.1</td>
</tr>
<tr>
<td>Logging Related</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Medical (M.D., Dentistry)</td>
<td>4</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Single Parent Help</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Law Enforcement</td>
<td>2</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Design/Fabric Fashion</td>
<td>2</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Social Work</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Science Related</td>
<td>4</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Construction Related</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Cultural &amp; Artistic</td>
<td>4</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Politics, Comm. Devel.</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Retirement Planning</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Money for Schooling</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Travel Industry</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Technicians (Misc.)</td>
<td>4</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Beauty School</td>
<td>1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
</tbody>
</table>

238 Valid Cases

Total Responses 229 100.0 125.6
Problems in Assessing Information and Education Needs

Needs assessment must be a continuing process. Although formal surveys can provide an overview of general needs at a particular period of time, such surveys need to be supplemented with processes that can provide greater depth of understanding of the requirements of various community groups. Need for information is particularly difficult to assess because many people are unaware of the types of information from external sources that may be useful. Likewise, information providers often lack sufficient knowledge of the activities of rural residents to recommend new sources of information that might be usefully applied. Consequently, needs assessment must be seen as a continuing dialogue between potential information users and information providers.

III

Technology Implementation

Training, Support, and Installation

The very nature of the ICLIS project implied that technology would be a critical ingredient in the delivery of information and educational services. The success or failure of the project would to a significant degree reflect the success or failure of the introduction of the technologies into the public libraries. Human factors were recognized as the primary element in the adoption of the electronic systems in the rural communities.

Before any installation, training, or equipment selection could occur, a technical solution had to be developed to meet the objectives of the project. A phased approach was taken to the development and installation of technologies. The first problem related to enhancing the delivery of information and linking the project sites. A second challenge was to establish a procedure for providing public access to computers that could be used by clients in the eight rural libraries. The final problem was the implementation of technologies to deliver educational programming from the state universities.

Among the decisions needed to be made regarding equipment for the project were a) what equipment to purchase, b) how and by whom the equipment would be installed, c) what training would be necessary and d) how would maintenance and support be provided. These decisions were all linked by the development of a general project philosophy.
This philosophy which has evolved over the life of the project includes five requirements for the equipment used in the technical solutions: compatibility, flexibility, affordability, functionality, and supportability. The first requirement, compatibility, reflects the need for equipment that would be compatible between ICLIS locations and as far as possible with equipment used by other information and education providers. Compatibility would also facilitate the networking of machines and the provision of training and maintenance by the ICLIS staff.

With technology changing very rapidly in computers and other information systems, flexibility is an important requirement. Being locked into one system or configuration, without the ability to upgrade as advances were introduced, could make the project equipment obsolete.

Affordability is another concern. Satellite technologies are available that will accomplish many of the ICLIS technical goals, but the cost is prohibitive. The computer technologies selected for use by ICLIS provide many of the same functions but more affordably.

The concern about functionality focused on the desire to have equipment that was easy to use and maintain. It also involved the outlining of minimal performance requirements for the basic components, including such things as memory requirements, printer speeds and other basic criteria.

Finally, we looked at the equipment's supportability, including a review of repair records, availability of service, documentation provided with the equipment, etc. The principle focus is on local availability of service and repair. Preference is given to "off-the-shelf" equipment that could be repaired locally if possible.

Purchasing of equipment for the ICLIS project was done centrally to take advantage of vendor discounts, provide a central liaison with vendors, and facilitate financial record keeping. Good record keeping is important when many pieces of equipment are purchased and distributed over a wide geographical area. The recordkeeping included maintaining a roster of serial numbers of all items shipped, their location and their costs. Subsequent to their distribution, a record is kept of all repairs that occur during the warranty period. This provides a basis for rating equipment and vendors for future purchases.

It was also very important to obtain complete cost
information associated with each of the proposed equipment configurations. Transportation costs, repair and maintenance costs over the expected life of the equipment, and other similar costs were included in the purchasing evaluation.

Once a system had been purchased, the next challenge was to get equipment installed and running at the ICLIS sites. The installation process needed to be well thought out, since it required the coordination of many people at distant locations. Issues that had to be addressed included the distribution procedures to be used (whether all equipment could be distributed from a central location or be sent directly from the vendor to the site), and the installation of the equipment (whether the local project coordinator or a person provided by the vendor would perform the installation).

Training was the next focus of concern since the best equipment is useless without knowledgeable operators. Training can be provided in many ways—seminars at a central location, on site instruction, self-help booklets and documentation provided with the equipment. ICLIS uses a combination of all of these processes. Each has its own benefits and liabilities. Cost often dictates the amount of personal training that can be used. Face to face teaching may be effective but is also very expensive.

Training has proven to be vital in the establishment and maintenance of the electronic mail network. The network software selected to link the sites is called FIDO, a bulletin board program. The effective use of this software requires the identification of a systems operator who is charged with maintaining the local network node for the bulletin board. This is not particularly complicated but has involved a healthy amount of advice and consultation with the staff at the remote sites.

Finally, once the system was operational, the issue of maintenance had to be addressed. Many of these decisions had been made during the purchasing negotiations. We specifically chose equipment that in most instances could be repaired locally once the warranty period expired. There was the reality that many hardware and software problems occurred that did not merit calling the vendor for assistance. A helpline was established to assist in addressing these types of basic hardware and software problems. This helpline proved to be the most effective way of dealing with problems that arose in the day to day operation. A log of the questions has been kept since the project start. This log is used to identify problems that are common to all sites.
IV

Library and Information Services

While there are two principle thrusts of the ICLIS project, learning or education and information services, attention will be directed to the latter. An underlying assumption of the project was and continues to be that rural libraries are unable by themselves to provide their clients with resources comparable to those found in metropolitan areas. As a result the rural citizen is placed at a disadvantage in his/her pursuit of information needed for educational or economic reasons.

The ICLIS project was founded on the premise there would be involvement by the state libraries and land-grant institutions of the four states. The four state libraries have been willing and eager participants as have the four land-grant universities. However, only two of the academic libraries at the universities are involved in the project.

This portion of the paper will concentrate on the experiences in Utah involving the Utah State Library and the Merrill Library, Utah State University. The observations offered are specific to the Utah environment and cannot be extended to any of the other states.

Once the computer and communications equipment was installed in the two locations in Utah and training provided, the community specialists were in a position to provide access to library and information services. An electronic network had been installed linking all sites across the four states with electronic mail and the capacity to send questions and receive answers. Providing the mechanisms for seeking library and information services did not automatically guarantee anything would take place.

The traditional environment in Utah for providing cooperative library services still was present. The state library had developed a process whereby requests from local libraries were forwarded to the state library for processing and filling. If they could not be filled within the state, the requests were sent into the national interlibrary loan system to be filled. A group of library specialists working out of the state library provided the personal contact with the public libraries and facilitated the development of a satisfactory working relationship.

The state library's involvement in the ICLIS project from the beginning helped to insure the evolution of a new set of relationships between the rural libraries, the state library, and
the university library. All three participants in the Utah phase of the project have worked in harmony to insure the rural client receives the best possible services regardless of source.

Exceptions to the established state interlibrary loan system were developed to permit the two project sites to send their requests directly to the Merrill Library circumventing the existing procedures. These exceptions required accommodation in the manner in which statistics were kept and the way in which reimbursement for interlibrary loan activity was handled.

The existence of amicable working relationships among the sites in Utah was critical, but, just as important was the presence of the electronic network which had been installed linking all participants in the project. The bulletin board software, FIDO, was adopted as the system for providing the communications link and the project staff has come to depend upon the network it provides for the timely transfer of all types of communications.

The arena of library and information services can be separated in two distinctive but not necessarily independent activities, reference questions and requests for materials. Handling reference questions was considerably more straightforward than requests for materials. Typically, the community specialist only had to phrase the question to be answered and enter it into the system. The training provided to the community specialist made processing these requests somewhat easier.

Community specialists were trained in database searching techniques so they have been able to respond immediately to client inquiries. As with searchers elsewhere, the comparative skills of the community specialists, the number of searches they performed, and the files searched have varied. There is anecdotal evidence that there has been direct benefit from some of the searches. The relationship between the community specialists and the university librarians regarding database searching is one that could be expanded and improved. University librarians could function as a backup providing information and training for the community specialists when they are called upon to search a database they have not used. Rather than use trainers from Dialog, BRS or others, university librarians could provide in-service training, perhaps, avoiding some of the costs of bringing trainers in from across the country.

Requests for materials through interlibrary loan required the greatest amount of training and has had the most impact on rural clients. One of the first things that had to be done was
the creation of an electronic interlibrary loan form. This was developed as a word processor file and loaded on the electronic bulletin board. Any of the community specialists could download the form and use it repeatedly. As requests were received, they were entered in the computer and once a day the requests were uploaded to the network.

The network has been arranged so that in the early hours of the morning the nodes on the system poll the central computer for mail to be picked up or delivered. This occurs automatically permitting an individual to check his/her mail when they arrive at their workplace each morning. Interlibrary loan requests are delivered to the central node located in the Merrill Library and Learning Resources Program administrative offices. As the requests are delivered they are automatically printed. Interlibrary loan staff check the workstation each morning for requests and proceed to fill the inquiries.

While there was some traffic in interlibrary requests from the start of the project, the major motivation for this service came from the need for the development of a closer relationship between the Merrill Library and the educational programs offered by the university to rural sites. A force in fostering this relationship was the Dean of Graduate Studies. As the number of courses offered off-campus proliferated, particularly at the graduate level, he became increasingly concerned about the issue of quality. He asserted that courses offered off-campus had to provide the same level of quality as on-campus courses. The key to quality in his mind was the support services that were available. Among the support services availability of library and information services was the most critical element. Since he had to sign off on any course before it could be offered, he was able to wield considerable influence with faculty bringing courses forward. His influence was reinforced by a Provost who felt the same about quality of instruction.

University library staff assumed that providing the electronic interlibrary loan form would be sufficient for proceeding with the sharing of resources. This was not sufficient as it immediately became clear that some instruction was needed regarding bibliographic citations and the minimal amount of information that was needed in order for requests to be filled. Once these factors were addressed, the process of requesting interlibrary loans settled down fairly quickly. These have continued to be a variety of aggravations from time to time related to the operation of the network. Files of requests occasionally do not get transferred at night. Sometimes the requests seem to disappear into the ether. When these incidents
take place, the network supervisor, the interlibrary services head, and the community specialist work together to solve the problem.

The success of the interlibrary loan portion of the project is due, in a large part, to a commitment to provide the very best service possible. On average, photocopies of journal articles are sent telefacsimile within 12 hours of the receipt of the request, if the item is held in the Merrill Library. Books arrive at the requesting site within an average of three days using one of the commercial package delivery services. This aspect linked with a congenial staff has insured a positive evaluation of this activity.

A dramatic improvement in extending information resources to the rural sites occurred when the on-line public access catalog became operational and could be accessed from remote locations. For the first time, clients away from campus could actually examine the Merrill Library catalog and determine if an item was held and if it was "on the shelf." The implications for those rural citizens enrolled in university courses were enormous. Additional training in the use of an on-line catalog and its idiosyncrasies became important for the community specialists as they were faced with the task of interpreting the catalog citations to the clients.

As the relationship between the ICLIS project and the Merrill Library developed after the funding was received from Kellogg, the library support was provided on an overload basis. One of the significant contributions insureing success of the library and information services activity was the financial support by ICLIS to the library. Without this, it is unlikely the present level of service could have evolved. Funds were provided to assist in covering the cost of staffing, materials, and operating expenses.
IV

Lessons Learned

ICLIS has been in existence for two years. In that time, the project has evolved from its original conception to a functioning four state network. A variety of lessons may be drawn from the experiences of the participants. A representative selection of these lessons are:

1. It is critical to develop the local support infrastructure prior to implementation. This includes the development of local leadership, the cultivation of local business, professional groups, and elected officials.

2. The cultivation processes must continue throughout start-up and implementation. Changes in elected leadership in the communities will occur and may impede progress of implementation and long-term support.

3. Communications and decision making must be a part of the project at all levels, community, university, and state.

4. It would be desirable to create a coordinating position such as a community learning and information specialist within the existing library units. This may entail retraining and retooling existing staff.

5. Acceptance of centralized planning and solutions, if possible at all, will only come slowly and reluctantly.

6. It is difficult to come to consensus when there are independent institutional agendas involved.

7. The time required to put innovation in place is always longer than anticipated. Decisions to select and implement technologies are far less consequential than the training and building of human support systems.

8. In order to meet local needs there must be a continuing dialogue between information and education providers and local citizens.

9. Any new project or solution will threaten existing organizations unless they are brought into the new activity.
10. In order to bring about fundamental change in existing systems you must have the backing of top administrative leaders.

11. The more complex the project, the greater the number of participants in the project, the longer it will take to achieve any goal that can be established.

12. Build the network architecture to accommodate changes in technologies.

Finally, projects can build unrealistic expectations among client groups. The task is to balance promotion with the development of reasonable expectations for the project. This will ensure better cooperation among the partner groups establishing the innovation.
Accepting the Challenge:
Providing Quality Library Services for Distance Education Programs
Anne J. Mathews
Office of Library Programs
Office of Educational Research and Improvement
U.S. Department of Education

Thank you for including me on your program. I've reviewed proceedings of former conferences and feel honored to join the growing list of speakers who have addressed this most important meeting. At the very outset, I would like to commend Central Michigan University's Libraries and Extended Degree Program for sponsoring this series of conferences on off-campus library services and for promoting distance education nationwide. And a special word of thanks to Maryhelen Garrett for her meticulous planning and excellent communication about the content and logistics of this meeting.

In preparing for this speech, I reminisced a bit about my own experiences in planning and teaching off-campus courses. As the former Director of Continuing Education at the University of Denver's Graduate School of Librarianship and Information Management, I thought about our achievements, as well as the problems and issues we had to deal with in order to make the program relevant and successful. I now realize that those issues were, for the most part, universal. The opportunity to speak to you today has allowed me to play "catch-up" with what has been happening in recent years in the area of off-campus or distance education.

I am also pleased to be in South Carolina, a state that is recognized as a leader in distance education. I am especially proud of the University of South Carolina's College of Library and Information Science: whose efforts in distance education--using telecommunications to further train librarians--are exemplary. The Spring 1987 issue of the Journal of Education for Library and Information Science (Faibisoff) carries an extensive report of USC's program. For those of you who have not read it, I urge you to do so.

When I was invited to speak at this year's Off-campus Library Services Conference, I was asked to comment generally on the role of library services in support of non-traditional
learning and specifically about the financial support available through the Office of Library Programs at the U.S. Department of Education. I shall address both.

As we consider together several issues today, I think that we need to have a common "frame of reference"—an agreement on a definition. Just what is distance education? How do each of us define it? From my own experiences, coupled with the numerous articles I have been reading on the subject, a host of definitions could apply. Most definitions of distance learning include the following characteristics:

- it provides at least occasional interaction with faculty;
- it encourages student independence and individualized study;
- it provides course delivery both on and off campus;
- it is based on student needs (Faibisoff, 1987, p. 225);
- it frequently includes use of adjunct faculty at a site removed from the host campus.

For the purposes of my talk today, I am using the terms "distance education" and "off-campus" programs interchangeably.

As college costs continue to rise, full-time enrollment at college campuses continues to decline, and more and more adults are returning to college to further their education, distance education is becoming increasingly more important. With the demographics of our educational system changing almost daily, new and innovative approaches to higher education are being developed and implemented.

Quoting Patricia Cross, who spoke at Central Michigan University's Conference on Adult Learning in Higher Education last year and who is at the Harvard Graduate School of Education, "The trend is as clear as it is steady. The college campus has burst explosively from its boundaries, and decentralization of learning is a major trend of our times" (Cross, 1987). More and more academic institutions are turning to off-campus programming.

According to the July-August 1988 issue of The Futurist. "The learning environment will not be as important to us in the future. Individuals will learn more and more on their own, the places of learning will be more dispersed, and the age at which things are learned will depend on the individual and not on tradition" (Cetron, 1988).
Some educators suggest that the time is fast approaching when it will be possible for an individual to pursue a college degree without ever setting foot on a college campus. It reminds us that 150 years ago the public library in America was described as the "people's university." We may have come full cycle.

Since the baby-boomers completed their college years, higher education has found itself rapidly changing to meet new needs. In addition, the baby bust which followed the post war baby boom has reduced the number of young adults enrolled in colleges. However, other factors have come into play that actually increase the need for higher education.

Just last night I learned from George Bates, the Associate Director for Academic Affairs for the Extended Degree Programs of Central Michigan University, that the average age of the distance learner or the returning adult learner is actually in the mid-thirties--around 34.5 years old. That, of course, is the average age of the baby boom generation. Just as we saw them depart after their traditional college campus experience and the college enrollment explosion ended, we now find ourselves at the point of picking them up again in our distance education programs.

William Abbott (1978, p. 99), onetime editor of the World Future Society's Careers Tomorrow newsletter suggests that skilled workers will have to attend school at least four times in their lives in order to be totally retrained. He goes on to say in that article that "most workers will probably hold two jobs or go to college on a part-time basis. The need for lifelong learning will be a generally accepted principle" by the year 2001 (Abbott, 1978, p. 99). It appears that no line of work is safe from the demands of lifelong learning. In fact, Abbott believes "It should be clear that the separation between work and education is disappearing" (Abbott, 1978, p. 101). Furthermore, the rapidly changing job market, coupled with the advances in technology, will necessitate increased training across the board.

You may remember that in 1982 John Naisbitt told us that "the rapid change ahead means you cannot expect to remain in the same job or profession for life, even if it is an information occupation" (p. 37). In Megatrends, Naisbitt identified as one of the ten trends affecting American life, the shift from interest in the short-term to interest in the long-term. In business, this year's bottom-line is no longer the most important indicator; long-term company growth is. About education he says, "The notion of lifelong learning is already replacing the short-term approach to education, whereby we went to school, graduated, and that was that" (p. 95). Certainly this is one of his predicted trends we
are seeing played out.

How is the changing face of higher education impacting on library services? As new approaches to higher education are being developed, are new approaches to library services being developed as well?

One positive aspect of the focus on new approaches in higher education is that it may force the library profession to become more proactive about its activities. Stop and think about: What is the most important service you as a librarian provide for off-campus programs? Ten years ago, were you offering that service? To the extend that we are providing adequate resources and services to off-campus programs, we are being integrated into the distance education program. But, if we are to be a truly integral part of distance learning we must critically assess the quality of our programs and services.

Name one support service you currently offer that you consider a quality service. If there were time, I'd like to go around the room and hear your replies. It would be instructive for all of us to be able to hear the new ideas that would come forth. Also, it would be useful to find out how much consensus there is. Are you limited by money? by staff? by faculty apathy? by your own lethargy? by your already full schedule? by lack of support from your administrators? or all of the above, plus a few more?

If distance educators accept the concept of lifelong learning and the need for acquiring the skills to "learn how to learn" as goals to be achieved, then they will have to devote increasing energy to helping students acquire effective critical thinking skills, including those in the use of libraries and information. Distance educators will have to offer independent learning activities and projects that encourage learners to exploit the resources and services of libraries within their own communities. The role of resource providers and facilitators (read that, librarians) will become increasingly more important to distance education.

However, do those who plan distance learning activities--conferences, curricula, etc.--consider the role of the library, and include librarians, in their planning? The literature I explored in sources outside the library field contained few references to library services as a major component to support off-campus programs. This scarcity of information suggests to me that librarians are not considered major players.
As Theodore Roszak suggested in *The Cult of Information* (1986, p. 172-173), public libraries may be the missing link in the information age—in fact, they may be by-passed completely! I wonder if this a danger for academic libraries as well? What are libraries and librarians doing to further their role in support of distance education? In fact, do libraries play an important role in ensuring that students receive a quality education? If so, how, and how do we know? What is the concept of the library in relationship to these changing roles and emerging priorities in distance education? How can we determine the effectiveness of current and future library programs? Or in other words, how do we determine the quality of our library programs and services?

We start to determine quality by asking the right questions. But it is really up to us to identify those questions. For example, what is a quality program? or service? and by whose standards? What do we mean when we talk about quality? Which takes me back in my thinking to Robert Pirsig's *Zen and the Art Of Motorcycle Maintenance*. Pirsig says that quality is a concept that cannot be defined and cannot be measured. It is something we seek consciously in our many endeavors. It is, if we are talented, persistent and lucky, an experience that we manage to achieve at one time or another in a particular aspect of our lives. It certainly is something that we brush up against occasionally and we most always recognize and appreciate quality when we come across it whether it is in the form of a fine symphony or an excellent motor tune up (Pirsig, 1985, p. 167-190). To that last sentence I would add "or good library services."

So I ask you again, what can and should we do to ensure quality in our off-campus library services programs based on the needs of the students and within the resources available?

To stimulate your thinking further, I have listed a few questions on program planning and evaluation to help you generate some questions of your own as you and your colleagues discuss the future of library services for distance education. They are:

- What are the current perceptions of the emerging priorities in distance education in your institution? *
- What is the concept of the library in relationship to these priorities?
- Does the library have access to the necessary background information—demographic, socioeconomic, and curricular—to develop and evaluate a plan of action?
- How does the library contribute to student learning? How can it better contribute?
- What are the roles and responsibilities of the librarian? Do they need to change and if so, how?
- How effectively do students use the library's services and resources to meet class objectives? Use those of other libraries? * Does the library need to cooperate with other libraries in order to offer quality services?
- What segments of the distance education population are being reached by existing services? How?
- What plan of action will bring about quality services to support distance learning? How can this plan be developed? Implemented? Evaluated?
- How can the library get key people in the institution to support this plan?
- What criteria can be used to determine the effectiveness of this plan of action? How will these criteria be applied?
- To what extent are the library's program objectives being met?

In addition, I was delighted to see similar ideas expressed in the list of questions included in your conference packet. I think this handout is terrific as it asks generic questions for your to consider. I went one step further by making my list of questions more focused. As a result of these and other questions raised at this conference, I hope you will be able to start a few research projects.

We can't know what impact we are making or why that impact is important unless there are data to support the statements. The data are absolutely essential to help you make your case for the importance of the library program; developing a research base is extremely important.

For instance, we need research on the use of telecommunications for the delivery of services. Again, referring to the July-August 1988 issue of The Futurist, the authors predict that by the late 1990's, computers will provide access to all the card catalogs of the world's libraries; and that 70% of U.S. homes will have computers by 2001, compared with only 18% today. And, more than three-fourth's of those computers will be equipped to permit communication via networks (Cetron, 1988, p.30). Given the increased use of telecommunications to provide distance learning, we can predict that library networking and resource sharing will become even more necessary to ensure quality programs and services.

In the book, Mastering Change, Leon Martel writes that "the best way to anticipate the future is to understand change"
(Martel, 1986, p. 11). As our educational needs evolve, it is no longer possible to solve today's problems with yesterday's solutions. What worked last year won't work this semester. You can either bemoan this fact or you can use your creative abilities to find new answers, new solutions and new ideas for providing quality library programs and services. By adopting a creative outlook you will open yourself up to new possibilities and positive change.

I believe that your presence at this conference and the variety and richness of the submitted papers testify to the fact that you truly are trying to tackle some of the questions I have raised this morning...and to solve problems which you have encountered in your own workplaces. You do want to provide quality services and programs. You want the best for your students and faculty and you want to use your resources as wisely as possible to achieve these ends. However, quality does not come easily and more often than not it comes at great expense. It requires dedication, effort, and innovation. It also requires money.

Money does not ensure quality, but it might allow you to try out the innovative approach you have been formulating or to test the theory you have been contemplating. One of your ideas might make an important contribution to improving the quality of library services for off-campus programs, which leads me to the second part of my talk.

The second topic I was asked to address concerns some of the resource possibilities available to you through the U.S. Department of Education's Office of Library Programs. May one of our grant programs will enable you to make your ideas realities.

The Office of Library Programs administers a $138 million program that supports libraries throughout the Nation. Most of this money is earmarked for public and academic libraries. Some of you may be familiar with the Library Services and Construction Act (LSCA) and the Higher Education Act titles. The focus of these programs is to support projects designed to strengthen and upgrade the quality, resources, and services of our Nation's libraries.

Four of those programs which we administer have particular relevance to your needs and interests. They are:

- the Library Career Training Program and
- the Library Research and Demonstration Program, both of
which make up Title II--B of the Higher Education Act;

- the College Library Technology and cooperation Grants Program, which is Title II--D of the same act; and

- the Interlibrary Cooperation and Resource Sharing Program which is Title III of the Library Services and Construction Act.

All of the grants awarded through Title II of the Higher Education Act are discretionary and are administered directly by the Office of Library Programs. To ensure equitable treatment, a per review process is used to evaluate all applications. At some point some of you may have served on one of our review panels, so some of you may be familiar with this process. In fact, if you are interested in serving on a review panel, I would encourage you to send me your resume.

Through HEA II--B, the Library Career Training Program awards grants to institutions of higher education and other library organizations to assist in the training of individuals in librarianship and to establish, develop, and expand programs of library and information science. Grantees may use these funds for fellowships, traineeships, and institutes.

This past summer, we awarded 23 grants, totalling $410,000 to support 23 fellowships and three institutes. Many of the projects funded will provide training and retraining of library personnel in areas of specialization where there are currently shortages, such as school media, children's and young adult services, science reference, and cataloging.

Other projects will support institutes to train or retrain library personnel in new techniques of information acquisition, transfer, and communication technology, and to increase excellence in library leadership through advanced training in library management and evaluation.

For example, the School of Library and Information Science at the University of Wisconsin, Milwaukee received a $26,909 grant to fund the Urban Library Management Institute to prepare middle managers to manage changes affecting libraries. The one week institute is designed to give participants from urban academic and public libraries insights into emerging fiscal, demographic, educational, technological, and cultural trends affecting the development and delivery of library services into the 21st century.
The other part of HEA II--B, the Library Research and Demonstration Program provides grants to institutions of higher education and other public and private organizations for research and demonstration projects pertaining to library improvement, training in librarianship, and for the dissemination of information resulting from these projects.

This past year, we received 49 applications requesting a total of $4.2 million; unfortunately, we had only $309,000 to award. Of those 49 applications, 26 were eligible for review, and 5 of those were ultimately funded.

One of our FY 1988 grant recipients was Clarion State University. Their research centered on: What do rural people think about their public libraries? What are the information needs of rural Americans? and, To what extent do rural public libraries meet the information needs of their users? Based on these findings, Clarion State is developing and disseminating training materials for rural public librarians to help them become more efficient in serving their constituencies. I mention this because I think your distance learning students may be one of their "new" constituencies.

Every year the Secretary of Education establishes priorities for research. For 1989, the first priority will address the library's role--educational, cultural, and intellectual--in relation to other educational institutions.

The second priority focuses on what we need to know about the library user, non-user, and potential user in order to assess the quality of service and resources and the extent to which the information needs of the community are being met.

The third priority is directed at identifying the potential effects of new technologies on user access to information, indicators of access to information, and the extent to which format affects access and use of information.

The fourth priority for 1989 will study the economics of libraries and the factors that influence library funding.

The third funding program, the College Library Technology and Cooperation Grants Program, HEA II--D, is our newest program and potentially our most competitive one. The purpose of this grants program is to encourage the development of exemplary uses of technological equipment in libraries of institutions of higher education.
There are four types of grants awarded. Authorized activities for all four types of grants include:

- buying access to networks,
- acquiring additional equipment and supplies that will assist in achieving the purpose of the project,
- paying staff,
- paying for telecommunications expenses,
- evaluating the project, and
- disseminating information about the project.

The minimum grant given in any of the four categories is $15,000 and projects are funded for up to a three year period. Applicants are required to spend not less than one-third of the total grant award from funds other than those received under HEA II-D. For example, if you received the minimum $15,000 award, your institution would have to match that amount with $5,000.

In the first category, Networking, institutions of higher education may apply to plan, develop, acquire, install, maintain or replace technological equipment necessary to participate in networks for sharing library resources. This past year most applicants requested support to purchase the equipment necessary to participate in OCLC or a regional network to facilitate interlibrary loan and to contribute their records.

Secondly, Combinations of institutions of higher education may apply for Combination grants to establish and strengthen joint-use library facilities, resources, or equipment. Many applicants requested funds to create shared online catalogs and acquisitions programs, to strengthen existing shared systems through reconversion of records and to establish new levels of cooperation either regionally or through the coordination of specialized subject area collections.

For Services to Institutions grants, public or private nonprofit organizations which provide library and information services to institutions of higher education on a formal cooperative basis may apply to establish, develop, or expand programs or projects that improve information services to institutions of higher education. Under this category, public libraries, state library administrative agencies and special libraries applied mostly to improve and expand access to materials via interlibrary loan to the institutions in their regions, to create dial-up access to special collection indices to support the academic programs of the institutions they serve, and to create broad-based regional resource centers for the institutions in their area.
And finally, for Research and Demonstration grants, institutions of higher education may apply to conduct research or demonstration projects to meet specialized national or regional needs in utilizing technology to enhance library information sciences.

For FY 1988 applications we found that they ran the gamut of innovative ideas and approaches, including: the improvement of reference services via remote access to CD-ROM databases; increasing the ability of end-users to decipher the myriad of computerized information sources by creating full service, integrated library workstations using advanced function stations, optical disc storage and expert system components; behavioral studies of information seekers using computers as a means of developing improved programs for ease of use, precision and output; improvement of the speed of delivery of interlibrary loan items via telefacsimile or other means; intelligent character recognition to facilitate reconversion efforts; and ideas for uses of satellite equipment to capture the transmission of information from around the globe to strengthen and create new academic programs.

HEA, Title II-D was authorized by congress for the first time in FY 1988 with an appropriation of $3.59 million. Three hundred thirty applications were received requesting almost $27 million. A total of 45 proposals were funded with average grants ranging from $24,000 in the Services to Institutions category to $115,000 in Research and Demonstration.

The fourth source of funding in the Office of Library Programs is Title III of the Library Services and Construction Act--LSCA--which supports interlibrary cooperation and resource sharing. Unlike the Higher Education Act funds just mentioned, these LSCA funds are distributed directly to the States through formula grants and the State library agency becomes responsible for their administration. In fiscal year 1988 the States received $18.2 million for Title III purposes. Congress recently appropriated $19,102,000 in funding for fiscal year 1989.

The purpose of Title III is to allow the States to develop, establish, expand or operate local, State, regional and interstate cooperative library networks among public, academic, school and special libraries. The State library agencies may fund three types of activities:

- planning for cooperative library networks;
- establishing, expanding, and operating library networks;
and
- planning for Statewide resource sharing.

How each State uses its Title III allotment depends on its needs and long-range plan and annual program; however, many States do run grant competitions. Since States manage their grant competitions differently, it would be difficult to explore subgranting practices without getting into specifics—guidelines, criteria, funding periods, and application procedures—of individual States. If you are interested in pursuing whether or not your State offers grant competitions for LSCA, Title III funds, contact your State librarian or the LSCA officer at your State library agency.

According to your conference program, a number of innovative services will be reported at this meeting. There appears to be no shortage of creative ideas among this group, so I expect to hear that at least some of your are applying to the Office of Library Programs for HEA funds in the near future.

In closing I would like to remind you that tomorrow afternoon ACRL is conducting an open hearing on the 1982 "Guidelines for Extended Campus Library Services." This is an important agenda item because it is critical that we take a very hard look at those guidelines.

What impact do the present guidelines have on current services? How do they complement State mandated regulations that require adequate library support for off-campus programs as part of the accreditation process? How useful will the present guidelines be in five, ten or even twenty years from now? Do the current guidelines reflect the increasing use of technology? Can a set of general guidelines apply across the board or must they be tailored to differing institutional settings?

What are the implications for the library profession? As new approaches to distance education are being developed, are new approaches to library services being developed also?

These are all important issues to be considered. It is imperative that libraries provide quality services. We in the Office of Library Programs can provide you with some funding for innovation, but it is you who must provide the innovative ideas. And it is you who must determine the quality of these programs. Setting standards for quality and charting a course for the future of library services to off-campus programs is a major responsibility and a great challenge. I hope you will accept this challenge.
References


Appendix

Some Questions for Consideration in Planning and Evaluating Library Services for Distance Education

- What are the current perceptions of the emerging priorities in distance education in your institution?

- What is the concept of the library in relationship to these priorities?

- Does the library have access to the necessary background information—demographic, socioeconomic, and curricular—to develop and evaluate a plan of action?

- How does the library contribute to student learning? How can it better contribute?

- What are the roles and responsibilities of the librarian? Do they need to change and if so, how?

- How effectively do students use the library's services and resources to meet class objectives? Use those of other libraries?

- Does the library need to cooperate with other libraries in order to offer quality services?

- What segments of the distance education population are being reached by existing services? How?

- What plan of action will bring about quality services to support distance learning? How can this plan be developed? Implemented? Evaluated?

- How can the library get key people in the institution to support this plan?

- What criteria can be used to determine the effectiveness of this plan of action? How will this criteria be applied?

- To what extent are the library's program objectives being met?
Evaluation of Library Collection Support for an Off-Campus Degree Program

Carol M. Moulden
National College of Education

Introduction

National College of Education (NCE) in Evanston, Illinois, introduced the field-experience delivery system in 1978 to offer undergraduate and graduate degree programs for adult students who are employed full-time. Undergraduate degree completion programs in applied behavioral sciences and graduate programs in education, adult and continuing education, human services, allied health and organizational studies are currently offered by NCE. Classes are held off-campus in the evening at field sites in Illinois and other states. These programs are fully accredited by the North Central Association of Colleges and Schools.

Library services are a major support of these off-campus degree programs. During the past ten years, National College of Education librarians have developed a successful program of services to meet the needs of the field-experience students, which includes bibliographic instruction, a computerized database search relating to each student's research topic, and document delivery to the student's homes.

Statement of the Problem

The NCE librarians wanted to evaluate the library collection support for these nontraditional degree programs which were also new curricula to the College. Since the completion of a thesis is a requirement of the graduate programs and a major research paper is required in the undergraduate program, the students needed to obtain relevant sources for their research. It is probable that the NCE students used other local libraries besides contacting the NCE library via telephone or in person. However, the NCE librarians wanted to know whether the library collection contained the types of materials used by the field-experience students in order to make collection development decisions.

A research project was conducted during 1986 to evaluate the adequacy of the NCE library collection to support the thesis research of graduate students in one off-campus program. The study was undertaken to determine which of the materials cited in
the theses were actually owned by the National College of Education library. Adequacy of the collection was defined by the NCE librarians as ownership of all materials cited by more than one person. The Management/Development of Human Resources (M/DHR) program was selected for this research because a thesis was required, it was the oldest graduate field experience program at NCE (established in September 1980), and the subject areas covered were a departure from the historical focuses of the College—education and liberal arts.

Assumptions

The primary assumptions of this study were:

1. An academic library should provide resources to support the research needs of its students.
2. The citing of a book or periodical article in a student's bibliography is an indicator of use.
3. The use of a book or periodical title by more than one student indicates that it will probably be needed as a resource by other students in the same academic program.
4. Identification of the library from which the student obtained the cited materials is not relevant to this study.

Citation Analysis

Citation analysis was used in this research to determine the patterns of literature use and to identify the most-used materials. The bibliographic citations of a sample of masters theses were analyzed by type of material (book, periodical, etc.) and frequency of citation and then compared to the holdings of the National College of Education library. While there are limitations to this type of research, citation analysis can provide some useful quantitative information. Smith, a library and information science professor at Illinois, said that:

...citations are attractive subjects of study because they are both unobtrusive and readily available.... Citations are signposts left behind after information has been utilized and as such provide data by which one may build pictures of user behavior without ever confronting the user himself. Any set of documents containing reference lists can provide raw material for citation analysis, and citation counts based on a given set of documents are precise and objective. (Smith, 1981, p. 84-85)
Related Studies

At the heart of off-campus library services is the collection of books, periodicals, and other materials housed in the main campus of each college or university. Littleton (1956) in "Off-campus Library Services of Universities" emphasized that the university should "give more attention to its main business of providing research and teaching materials" (p. 306). The ACRL "Guidelines for Extended Campus Library Services" (1982) contain a section on "Resources" which gives a general framework for providing adequate library materials for any "nontraditional program which extends beyond the usual concept of higher education" (p. 87). The section begins:

Access to library materials in sufficient number, scope, and format (print and non-print) should be provided to: 1) accommodate the students' needs in fulfilling course assignments, including required and assigned readings and research papers. (p. 87)

One area in which citation analysis has been applied successfully as a tool for librarians is user studies. Although such studies are descriptive, they have implications for collection development. The trends of past use of sources can be used as an indicator of expected future use, assuming the curriculum does not change substantially.

Several studies were identified as being similar in design and purpose to the one conducted at NCE. Kriz (1978) analyzed reference lists in engineering theses published by users of the West Virginia University library. Finding books to be more frequently used than journals, funds were shifted from journal subscriptions in order to purchase more books. Popovich (1975) reported that citations from business/management dissertations at State University of New York at Buffalo (SUNYAB) were analyzed. When data were gathered on the availability of cited materials in the SUNYAB university library, the results showed that the library held more than 85% of the cited materials. The data were to be used "as a guideline for the librarian in establishing acquisition and collection development policies" (p. 5). Chambers (1973) examined journal citations in masters theses at the University of Rhode Island as a means of measuring the use of the journal collection for the purpose of collection evaluation and development. In another study, citation analysis of faculty publications, doctoral dissertations and preliminary doctoral qualifying briefs at Temple University was used to assess journal use (McCain and Bobick, 1981). Mancall and Drott (1979) studied the bibliographies of independent study papers of high school
students. The finding that students depended more heavily on monographs than on journals or other types of materials influenced future collection development.

Methodology

The characteristics of the citations studied for the National College of Education research were type of material and extent to which the materials were owned by the NCE library. The sample used for this study was the bibliographic citations from all of the H/DHR theses completed and approved during 1984, a one-year period after the degree program was well established. There were 2,465 citations in the 65 theses.

The citations were sorted into six categories by type of material; monograph, periodical article, ERIC document, dissertation, government publication, and miscellaneous (i.e., an annual report of a corporation or a personal interview). It was possible to verify ownership status for all but the miscellaneous category. Classifying a citation by form was determined by the bibliographic format of the citation, or, when necessary, by the judgment of the researcher.

Each citation was entered into a microcomputer database software program (dBase III Plus) for easy sorting, tallying and retrieval. The information entered for each citation was: thesis number (unique call number), type of material, title, author, and year of publication.

Book citations were alphabetized by title using dBase III, then checked against the card catalog. Periodical titles cited were checked against the NCE Periodical Holdings List. It was recorded whether the National College of Education owned the year cited, earlier years only, later years only, or not at all. All ERIC documents cited were considered to be owned by NCE which has the complete collection from 1966 to the present. Government documents and dissertations were checked in the card catalog. Items in the miscellaneous group, government documents, and dissertations were counted in the total number of citations but not analyzed further.

Research Results

Of the 2,465 bibliographic citations, 1,403 (56.9%) were periodical article citations, and 926 (37.6%) were book citations. There were 32 references to government publications, 13 ERIC document references and 4 dissertation references totalling 49 (2%). The remaining 87 (3.5%) were "other" references.
Some adjustments had to be made in the number of usable citations. The total number of periodical article citations was changed from 1,403 to 1,353 usable references, since 50 periodical titles could not be verified as cited in standard reference sources. The total number of usable book citations was changed from 926 to 874 since 52 references were cited in error (a book cited more than once in the same thesis bibliography). After these adjustments were made, the book and periodical citations accounted for 94.2% of the total 2,363 references.

The results of the book citation analysis showed that, of the 874 references to books, 776 were unique titles. Only 52 titles (6.7%) were cited by more than one person and accounted for 160 citations. These 52 books were determined to be essential for the NCE collection based on expected use. NCE owned 29 (56%) and did not own 23 (44%) of the titles.

The results of the periodical article citation analysis showed that, of the 1,353 references to periodical articles, 460 were unique periodical titles. Only 131 journals (28.5%) were cited by more than one person and, therefore, determined to be essential for the NCE collection. NCE owned 71 (54%) and did not own 60 (46%) of these journal titles.

Interpretation of the Results

National College of Education students may have used a greater percentage of periodicals than books because the students in the external degree programs are provided a free computer database search which results in a bibliography of primarily periodical citations. Also, it is difficult for students to identify books owned by NCE because the library did not have an on-line public access catalog with dial access ports, or a microform catalog at field sites.

No academic library collection can be expected to include all the research materials needed by the students and faculty in every academic program offered by the institution. The large number of books (724) and journal titles (329) used by only one person indicated a wide variety of topics researched by students at NCE in the field-experience program studied. The adequacy of the NCE collection, therefore, was evaluated based on the number of items owned that were cited by more than one person. A single use of a book or journal title did not support a prediction of future use. Therefore, it was concluded that the collection was adequate for those items which were cited by only one person because those individual needs could be met through interlibrary
loans. However, the collection was slightly inadequate in that 23 books and 60 journals were not owned by NCE.

**Recommendations**

The results of this evaluation of the NCE library collection support for this off-campus program indicated a need to add materials to the collection. This researcher recommended that materials that were cited by more than one person should be ordered to build the library collection in this general subject area. A total of 23 book titles at an estimated cost of $600 were added to the collection. It was further recommended that new periodical subscriptions and back issues be added for those cited by more than one person. However, due to budget constraints, only those cited by more than two persons were purchased at an estimated cost of $12,530.

**Future Research**

This study could be replicated at National College of Education to determine adequacy of collection support for all field-experience and on-campus programs. Other academic institutions which serve off-campus students could replicate this study as well.
References


Library Leadership in Off-campus Course Delivery

Gary Pitkin

University of Northern Colorado

In 1985, the Colorado Legislature responded to early educational reform proposals (A Nation at Risk, 1983; Education and Economic Progress, 1983; Boyer, 1983) by passing House Bill 1187. HB 1187 impacted the University of Northern Colorado in three specific ways. First of all, it changed the teacher certification process by eliminating the teacher education major, requiring prospective teachers to major in a liberal arts content field in addition to taking courses in pedagogy. Second, the bill directed the University to deliver educational programs to remote sites throughout the state where individuals wouldn't normally have the opportunity to pursue graduate or certification programs in teacher education. Third, HB 1187 designated the University of Northern Colorado as the primary institution in the state of Colorado responsible for graduate and undergraduate teacher education. This legislative charge provided momentum for two University initiatives: 1) to incorporate recent educational reform strategies (i.e. Carnegie's, A Nation Prepared, 1986 and the Holmes Group's Tomorrows Teachers . . . (1986)) into its own teacher education programs, and 2) to respond to present and future teacher shortages in math, science, and other content related fields (Hawley, 1986).

The University has responded to these state mandates by reforming its teacher education programs and creating the Statewide Access Program to deliver teacher certification programs to remote sites at a reasonable cost, yet comparable to the quality of on-campus programs. Providing quality and cost efficient programs has been a difficult challenge, because the University is located on the eastern plains whereas the delivery sites are predominantly located on the western slope of the Rockies -- many six hours away by car. The geographic barrier of the Rockies makes the task of delivery difficult and increases costs because faculty must be flown to the remote sites.

For these reasons, the University president, through the Council of Statewide Mission, appointed a Telecommunications Committee charged with recommending a plan of action for incorporating telecommunications into off-campus course delivery. The Committee was chaired by the Director of University Libraries. The Committee met often and involved additional key personnel.
Discussions went well beyond telecommunications to include the quality of instruction, and it became apparent that the success of off-campus course delivery was as dependent on instructional design and support as on hardware. The Committee recommended that the University administration establish a pilot project designed to demonstrate and evaluate the University's instructional design and telecommunication capabilities.

The recommendation was accepted, and the Director of University Libraries was appointed Project Administrator. Immediately identified for the Pilot project were a statewide access program, course and instructor.

The University Libraries quickly assumed the leadership role in both instructional design and telecommunications. The Libraries collections, databases, and online public-access catalog became the focal points of the design aspects of the project. The graphics, audio, and visual/television facilities of Educational Materials Services (EMS), a division of University Libraries, became the production facility for all course presentations. The design responsibilities of the College of Education's Interdisciplinary Center for Educational Technology was administratively assigned to the Director of University Libraries for the purposes of the pilot project.

Figure 1 lists the parameters of the pilot project as approved by the President of the University. The site selected, Mesa College in Grand Junction, is six hours away by car. The goal was to develop a telecommunicated course, ET 516 Utilization of Education Resources, during the Winter 1988 quarter for delivery during the Spring quarter. Support for the course was to come from instructional design, University Libraries, and telecommunications. As it turned out, the instructional design and telecommunications roles merged to provide a single effort. This included Educational Materials Services (EMS). The Interdisciplinary Center for Educational Technology (ICET) provided support through developing electronic mail capabilities between the sites involved.

**Figure 1. The Pilot Project.**

1) Access Program: Mesa College in Grand Junction

2) Course and Instructor: ET516 Utilization of Education Resources taught by Dr. Ellen Wagner

3) Timeline: Develop course during Winter 1988 quarter; deliver
course during Spring 1988 quarter

4) Budget: $10,112.00

5) Instructional design and library support:
   a) bring together the following units for effective course design and support:
      - the Interdisciplinary Center for Educational Technology (ICET)
      - the Colorado Alliance of Research Libraries (CARL) databases
      - the Educational Materials Services (EMS) graphics, audio, and visual/television facilities
      - the collections and services of regional libraries

6) Telecommunications:
   a) deliver the course to the access program through the use of videotapes, two-way conferencing, electronic mail, faculty visits, and student presentations

7) Administration:
   a) the pilot project should be coordinated by an administrator at the Dean/Director level; the Committee recommends that the person appointed work under the authority of the appropriate vice-presidents to ensure proper coordination
   b) immediately following Spring quarter, the administrator appointed to coordinate the pilot project should prepare a report, with the assistance of others involved, analyzing the project

8) Consultation:
   a) a consultant should be hired to examine the current status of telecommunications as it relates to the University's role and mission and recommend modifications to enhance the administrative structure and the application of telecommunications

Library support was provided through the Colorado Alliance
of Research Libraries (CARL) and access to the collections and services of regional libraries. CARL is an automated library network providing access to the holdings of the Auraria Library, Colorado School of Mines, Denver Public Library, University of Colorado/Boulder, University of Denver, University of Denver Law School, the University of Northern Colorado, Regis College, and MARMOT. The latter is a consortium of libraries in Western Colorado and includes Mesa College. Figure 2 is the CARL screen display listing the current members. Figure 3 lists the MARMOT libraries having holdings in the system.

Figure 2. CARL screen display showing current members.

The following databases are currently available:

Library Catalogs:  
1. Auraria  
2. C.U. at Boulder  
3. Denver Public Library  
4. Denver University  
5. Denver University Law School  
6. School of Mines  
7. U.N.C.  
8. Regis College  
9. Government Pubs -- DPL and CU

Information Databases:  
10. "Facts"  
11. Encyclopedia  
12. Metro Denver Facts  
13. InfoColorado  
14. Library News

Other Systems:

15. Pikes Peak Library (Colorado Springs)  
16. MARMOT Library System (Western Slope)

**See #14 (Library News) for information about new dialup lines**  
Enter the NUMBER of your choice, and press the [RETURN] key
Figure 3. Marmot libraries from the CARL screen display.

The following databases are currently available:

**Library Catalog**

1. Adams State College  
2. Aspen Schools  
3. Colorado Northwestern CC  
4. Colorado Mountain College  
5. Durango Public  
6. Eagle County  
7. Fort Lewis College  
8. Mesa College  
9. Mesa County Public  
10. Mesa County Schools  
11. Montrose  
12. Pathfinder System  
13. Pitkin County  
14. Southwest System  
15. Three Rivers System  
16. Vail Public  
17. Western State College

**Library News:**
18. MARMOT News

**Other Systems:**
19. CARL (Colorado Alliance of Research Libraries)  
20. Pikes Peak Library System (Colorado Springs)

Students at off-campus sites need access to the CARL online catalog and to the holdings information provided. This is especially true now because of the design and implementation of the Serials Access and Control Project. The Project provides "access to... articles... the same as in any other PAC (Public Access Catalog) search. In the CARL system, this means a WORD or NAME search will now return both articles and books, or the user can choose to search articles only." (Pitkin, 1988).

Access to the services of regional libraries is provided to off-campus students through a publication of the University Libraries and the Division of Statewide Programs. Entitled "Library Services for Students in Statewide Programs," the brochure provides information vital to the student using major libraries close to the off-campus site. Each entry is by library and provides information on library card circulation, fines, public access catalog, and specific services. Figure 4 is a sample entry.
Figure 4. Sample entry from "Library Services for Students..."

University of Denver  
Penrose Library  
2150 E. Evans  
Denver 80208  
Phone: 871-2211

Library Card: Borrowing privileges are limited to those with valid I.D. card. This is University policy. An individual borrower card may be obtained for an annual fee of $100.* An access card good for 10 weeks can also be obtained for $30.

Checking out & returning materials: Library materials may be checked out from the Circulation Desk for a 3-week period. Check-out maximum is five (5) books. Library materials are due on the latest date stamped on the date due card.

Fines: Fines for overdue materials accrue at the rate of 10 cents per day per item for the 1st 7 days and 50 cents per day thereafter. Books are considered lost after being overdue for 5 weeks. The lost book charge will vary depending on type and size of book. Please inquire at the Circulation Desk.

The Public Access Catalog: Provides information on the library holdings. It is simple to use and gives directions every step of the way. Through PAC, the collections of Auraria Library, Colorado School of Mines, Regis College and the University of Northern Colorado may also be perused.

The Information Desk: Is located in the main lobby and is staffed to assist users in preparing search strategies, selecting sources of information and answering questions about the library or library policies. Maps of the library are also available at this desk.

User assistance: Leaflets describing the library departments, their services and various types and sources of information are available on the display module on the main level, near the steps. Red and white telephones are located in the stack area for users' convenience.

* Extensive reference service interlibrary loan service and the use of the law library are not included.
An additional publication that supports the off-campus program "Library Services for Faculty Teaching in Off-campus Programs." This thirteen page booklet begins with a section on guidelines for extended campus library services and includes planning, finances, personnel, facilities, resources, and services. Services provided to off-campus students by the University of Northern Colorado Libraries are described through distinct sections on user access policies, public services, technical services, Educational Materials Services, administration, special services, and membership/consortia. Information is also provided on the services of regional libraries.

Telecommunications for the pilot project were initially to include only videotapes and two-way audioconferencing through the facilities of Educational Materials Services (EMS). This was to be in conjunction with faculty visits and student presentations. As mentioned earlier, the Interdisciplinary Center for Educational Technology (ICET) provided electronic mail capabilities.

At first, the Educational Materials Services (EMS) graphics, audio, and visual/television facilities were used in an instructional design capacity to produce materials for the pilot project course. Two weeks into the course US West Communications expressed interest in the project. They were in the process of developing an "educational initiative" and were anxious to have their technological capabilities involved in the off-campus program. Through the provision of their expertise and hardware, we expanded the pilot project to include more than the initial one access site. As a result the course was taught at three different times, involving two sites twice and five sites once, through audio-conferencing and telefacsimile equipment. A special session was held to teach the class at five sites through audio-conferencing and compressed video. All arrangements were made through the University Libraries and all systems were installed and maintained by EMS engineers in conjunction with US West personnel.

The pilot project also included the hiring of a consultant "to examine the current status of telecommunications as it relates to the University's role and mission and recommend modifications to enhance the administrative structure and the application of telecommunications." The consultant, after spending several days on campus interviewing key University personnel, produced a report that included the following recommendations:
1. The use of telecommunications for off-campus instruction should be established as a University priority.

2. The UNC Telecommunications Initiative should be established.
   -- The Initiative should embody a variety of technical approaches.
   -- The Initiative should encompass a widening array of programs.

3. An active program of instructional design and faculty training should be implemented.
   -- Instructional design efforts should be enhanced.
   -- Faculty training opportunities should be broadened.
   -- A comprehensive evaluation program should be created.

4. The administration of educational telecommunications should be streamlined.
   -- A clear distinction between program development and technical operation needs to be made.
   -- A new Educational Technologies organization should be established, headed by a Director of Educational Technologies.
   -- An Educational Technology Steering Committee should be established.

5. UNC should seek specific state support for the statewide mission and the telecommunications Initiative.

6. UNC should formally approach other institutions to discuss joint program development.

7. Capabilities for external data communications should be expanded.

8. On-campus telecommunications capabilities should be upgraded.
   -- Audio and video production capabilities should be improved.
A fiber optic cable should be run between the two sections of the Greeley campus.

Departments should be encouraged to develop Local Area Networks for their computers and work stations.

9. Telecommunications systems should be used to publicize UNC's programs and activities. (Dively, 1988)

These recommendations heavily impact the University Libraries and are now being considered for implementation.

The pilot project was quite successful. The role of University Libraries was substantial and included the provision of services, holdings, and telecommunications. The role also involved the administration of the entire project including coordination with an outside contractor and the hiring of a consultant. At the University of Northern Colorado the provision of off-campus courses and the role of University Libraries will both grow substantially.
References


A Study of Off-Campus Library Service
as a Basis for Planning and Administration
at a Private College in Delaware

Mary Louise Ponsell
Wilmington College

Introduction

In 1985 Wilmington College Library established a formal program of library service to off-campus students, who at that time represented 48% of all students enrolled at the college. The keystone of the new service was the availability of toll-free reference service and library materials by mail. During its three years of operation, the service has grown from supplying a small group of users to a larger group of users, with the potential of increasing the number of users rapidly over the next few years. The library administration believed that there was a need to evaluate the service and to estimate its growth potential as tools for administrative planning. Therefore, it was decided to survey a group of users and a group of non-users in May 1988.

A fuller discussion of the surveys and their results is presented later in this paper. However, it is worthwhile, first, to present the growth and development of the college and the rise of off-campus programs as historical background.

Historical Background

Wilmington College was founded in 1968 as a private four-year institution offering associate and baccalaureate degrees in career-oriented programs of study. The campus was established at New Castle, Delaware, a historic town on the Delaware River six miles south of Wilmington, in Delaware's northernmost and most heavily populated county, New Castle County. The first freshman class had approximately 168 students; 125 graduated at the first commencement in 1972. By that time, total enrollment was about 500 FTE students and continued to be about this size through 1977. By 1988, enrollment was 2,000.

Wilmington College's founders had envisioned a single-campus institution that would experience small but orderly growth. While the founders may have had long-range plans to offer graduate
degrees, these plans were far in the future. Off-campus programs were not in the long-range plan of development, although agreements were concluded with two-year institutions for Wilmington College to offer third and fourth year programs at these sites. Both of these programs subsequently were discontinued.

In 1974, however, an agreement was reached with Dover Air Force Base, Dover, Delaware, that marked the beginning of an era of expansion in off-campus programs and led to the eventual establishment of four program sites in Delaware in addition to the main campus at New Castle. DAFB, like many military posts, has an active educational program for its personnel, operated by colleges which fly instructors to the site from other states. Wilmington College saw an opportunity to serve a new market within its own state. Two popular programs, business management and behavioral science, were selected to be offered at the new site. Approximately 100 students were enrolled.

Graduate programs were started in 1977, two years after the college's initial accreditation in 1975. The Master of Business Administration degree was offered at the New Castle campus. Growing enrollment forced a need for additional classroom space. In 1981 the college purchased the historic U.S. Custom House in Wilmington, and moved the graduate program there in 1982. A second graduate degree program, Master of Science in Human Resources Management, was established in 1983 at the same location. Library service for these graduate programs is provided at the college library at New Castle, since it is centrally located and accessible to these users.

The Dover Air Force Base, however, is located in Kent County and is approximately 45 miles south of the main campus and the library. In the early years, the college contracted with Delaware State College, Dover, for library services to these students. Dover Air Force Base Library, a library for base personnel and their families operating in the style of a public library, provided shelf space for reserve reading assignments for Wilmington College students. While these arrangements were helpful, they were not adequate.

Then the college moved to establish two additional instructional sites, a second site in Dover and another site in Georgetown, Sussex County, 80 miles from the New Castle campus and the college library.

In 1980, Delaware Technical and Community College, Georgetown, knowing of Wilmington College's presence at DAFB,
invited the institution to offer undergraduate and MBA degrees at its campus. Library service initially was to be provided by DTCC's library there and Delaware State College library in Dover 40 miles north. This program, fed by an eager pool of DTCC graduates with 2-year degrees as well as others wanting the MBA degree, grew rapidly.

Recognizing the demand for such degrees in Sussex County, Wilmington College realized that in Kent County, where it was already enjoying success at DAFB, an additional group of non-military local citizens was available with needs for higher education. The facilities at DAFB were for base personnel and their families only. Therefore, the college opened a second site in Dover, known as the Silver Lake site, where it began to offer undergraduate and MBA degrees in 1983, and Master of Science degrees in 1984.

Development of these additional off-campus sites in the early 1980's led to an explosion of growth in off-campus enrollment. By spring, 1985, 48% of the students at Wilmington College were enrolled at programs at either DAFB, Silver Lake, or DTCC Georgetown.

Library Response to Off-Campus Growth

The emergence of off-campus enrollment as a large proportion of the student population forced the college and the library administration to evaluate services for this group.

At about this time, preparation was in progress for The Off-Campus Library Services Conference II in Knoxville, Tennessee, April 1985. The library director attended this conference and developed a program of library service based directly on the experience of other institutions as presented at this conference.

An 800-line telephone was installed in the library in September 1985. Cordura nylon book bags were purchased with the library's name using the college colors. A flyer was developed for distribution at the four distant sites, DAFB, Silver Lake, and Georgetown. Posters were printed featuring the 800-line telephone number. A letter of announcement was mailed to each faculty member and each student at all sites.

The service offered research assistance, from searching periodical indexes and card catalog to provide books and free photocopies by mail to searching the Delaware Union Catalog to locate materials elsewhere in the state. Book bags were addressed
with a library rate label on one side of a manila tag. On the reverse of this tag was a label and postage for the return. Books were mailed directly to the student's home, and the student personally mailed the books for return. No need was seen to involve site offices; in fact, such involvement was seen as an unnecessary complication.

Survey Response: Overview

Two groups were surveyed, i.e., users and non-users of the service. The staff was interested not only in user attitudes, but in how non-users fared using other libraries.

Users were overwhelmingly approving of the service, with 100% saying it was useful, including 83% who said it was "very" useful. Users and non-users alike felt that more publicity about the service was needed. There was mild interest, 16%, in a longer loan period than the present three weeks. Improvement in handling instructions for book return was seen as needed by 16%.

Many non-users did not know about the service but stated they would use it in the future.

Long-range implications for the library are that if every enrolled off-campus student uses the service, additional reference staff would have to be recruited. Furthermore, there is concern that the 800-line service does "too much" for the student, who is not learning skills as a library user. What limitations, if any, should be imposed on the service is a subject of debate.

User Responses

Surveys were mailed to 43 users during the spring 1988 term. Nineteen were returned.

Most users utilized the service one time during a term (44%), while 39% used it twice. One student used it four times. The purpose most reported was for papers (55%), reports (33%), theses (5%) and oral presentations (5%).

Reaction to the efforts of the 800-line librarian were strongly affirmative; 89% said the librarian was "interested" in and understood the student's question, while 93% said the librarian made an effort to understand.

Local libraries were visited by 66%, but only 39% found
materials there, and only 11% were satisfied with the materials.

When the college library supplied materials, 89% were satisfied with these; 72% said they completed their assignments without going to other libraries, while 22% reported that they went to other libraries as well.

Timely arrival of materials was reported by 89%, with three days the average time elapsed from the date of the call to receipt. The range was from two to five days, an extraordinary performance for library mail.

Asked if instructors were pleased with the product, 100% reported "yes", with 66% giving an "A" grade, 28% a "B" grade and 6% a "C". All students responding (100%) said the service was an advantage, that they would use it for a future assignment, and would recommend that it be continued.

Two comments were: "The service is great and the librarians should be commended for their excellent service" and "Please keep up the good work...You helped me with my bachelor's degree in 1986 and my master's degree in 1988...Keep up the good work."

Non-User Responses

The non-user group surveyed numbered 119, of which 32 responded, or 27%.

Of these, 44% knew about the 800-line service, while 56% did not. Only 33% who knew about the service used it. Reasons given for not using the service were: did not know about it (47%), did not have a library-related assignment (12%), did my research at another library (66%), did not have enough time (6%).

Queried about the type of library used, 65% used another college library, 25% used a public library, 12% used a university library, 22% used the DAFB Library, and 3% used a hospital library. Asked if they checked books out, 75% said "yes", 9% no, while 78% used their own card and 9% used a relative's or friend's card. Interlibrary loan was familiar to 56% and unfamiliar to 37%, while 34% said the library offered to obtain books through ILL. The librarians were considered "very helpful" by 28% and "extremely helpful" by 40%.

Asked to evaluate the material provided by the local library, 75% said it was "college level" material. An "A" grade was given by the instructor to 56%, "B" to 25% and "C" to 6%.
Most students (43%) checked out six or more books and used six or more journal articles (43%).

Asked if they would use the 800-line in the future, 81% of the non-users replied they would, and 3% said they would not, but did not give a reason when asked.

Administrative Plans

The information gathered from the surveys indicates the need for several immediate improvements and some long-range considerations.

Immediate steps to be taken include the following: a) more publicity with an improved brochure, circulated with registration packets; b) improved instructions for handling the return of books; and c) increase in the loan period from three to four weeks.

Long-range considerations are the need for more professional staff to do searches and more non-professional staff to do photocopying. In addition, limitations on the service may be applied if demand should exceed staff.

Concern about user's development of library skills will be addressed. Students are required to complete a self-directed orientation assignment, which may have to stand as the minimum requirement for off-campus students.

Guidance to students on types of local libraries to use for college work must be stressed. While 65% of non-users of the 800-line service used local college libraries, 25% used public libraries. Public library directors should be encouraged to refer students to the 800-line service. Students should be encouraged to use the service before going to local libraries.

The library staff is pleased with the reception of the 800-line service during its first three years. The service is used by about 20% of off-campus students, having doubled the second year and increased by about 11% in the third year. The relatively small cost to operate the service includes less than $1,500 a year for telephone and postage. The college's administration is impressed with what the service has accomplished and points to it as an innovative feature that is educationally sound as well as logical and economical.
InfoTrac and the Business Collection:

A Dynamic Duo for Off-Campus Programs

Sister Margaret Ruddy
Cardinal Stritch College

Like all societal patterns, the academic scene has changed radically in the past few years. New educational motifs have emerged; alternative paradigms have been conceived and embraced.

Completing one’s baccalaureate degree at a single institution four years after high school graduation is no longer the norm. Colleges are no longer crowded with eighteen to twenty-two year olds eager to get out into the work force or chafing to begin graduate studies. Rather, the student body is made up of varying age groups of people with widely diverse experiential backgrounds. The campus is not confined to grassy acres and ivy-covered halls, but has extended to include the workplace, the shopping mall, the church hall and motel dining room or some site distant in location and atmosphere from the academic institution. The time to complete a degree has, in many instances, been either extended, because of the need to attend college on a part-time basis, or shortened by entering an accelerated program any time during the year and receiving one’s degree when the work is completed.

It has been evident for some time that the pool of traditional-aged college students is declining. It is also clear that increasing numbers of working adults are returning to school after many years away from the classroom. Some are seeking professional advancement, others were unable to return to school sooner because of family obligations or financial restraints; some simply dropped out. Whatever their reason, the student over twenty-five years of age is making up a larger proportion of the college population today. To accommodate the expectations and special needs of these highly motivated students, many academic institutions are developing off-campus programs that take the classes to the consumers in non-academic settings. This approach has probably given financial solvency to a number of small private schools that were suffering from a declining enrollment, escalating costs and increasing competition from government-funded and heavily endowed institutions. These off-campus programs have infused fresh life and new monies into the colleges that adopted them, but they are not a panacea, by any means: they have precipitated a number of serious questions that remain unanswered.
How can a community of scholars be built up when the students are far removed from some of the primary sources of intellectual stimulation? How can the true meaning and habit of ongoing, lifelong learning be instilled into a student population for whom the college could easily become little more than a "diploma mill"? What is being done to insure academic quality? Are the availability and accessibility of resources for these students on a par with those of the on-campus population? Creative approaches are needed to answer these questions, and provide a challenge to the institution that wishes to maintain its academic excellence while attempting to reach out to the new student population.

Because of its unique position as a focal point for all programs within the college or university, the library must assume an active part in helping to maintain that sought-for high quality. The library must be more than just a repository of printed information. The professional library staff needs to be actively engaged in the educative process, providing the same level of service to both on-and off-campus students.

Academic institutions welcome the added numbers and financial security that off-campus students bring. Too often, however, the special needs of these students are either forgotten or neglected and, hence, the quality of their education suffers. It is incumbent upon the schools to provide, as a minimum, parity of resources and services to all students, and perhaps, something extra for the non-traditional student, so that their special needs might be adequately addressed. The library has a critical role to play in the delivery of services to these students, and the professional librarians are to be a primary resource to be accessed by them. Attaining a consistent, high level of service to all is, indeed, a difficult challenge for even the most willing library staff, but the quality and type of their services strongly influences the total excellence of all off-campus programs.

The extent and scope of library support for off-campus programs varies greatly from institution to institution and reflects, in some measure, the level of responsibility accepted by the school for providing equality of opportunity for all sectors of the student body.

The remainder of this paper will address the way in which one small Midwest liberal arts college tries to accept its responsibility to meet the library needs of rather extensive off-campus program.

Cardinal Stritch College, the third largest of Wisconsin's eighteen independent colleges, with an average enrollment of 2200
students, is a Catholic liberal arts institution located in metropolitan Milwaukee.

Begun as a traditional four-year degree-granting institution 50 years ago, Stritch's programs, while striving to maintain the liberal arts emphasis, have undergone radical changes in order to keep up with demographic shifts and consumer demands. Marketing strategies have been adapted and select programs have been modified or introduced to attract the non-traditional students. In 1982, Stritch began to offer off-campus programs in innovative format. These degree programs, designed for the working adult, combine theory with practice through the field experience model. Currently, the offerings include: Certificate of Sales and Marketing Management, Bachelors in Management and Business Administration, Masters in Management, Health Service Administration and a Master of Business Administration.

Of the over 1,120 students enrolled in these non-traditional programs, fewer than 40% of them actually attend classes on the Stritch campus. The other 60% meet their classes at various satellite sites scattered about the states of Wisconsin and Minnesota. Some of these off-campus locations are within the limits of metropolitan Milwaukee or within a radius of 100 miles or less of the College, while others are much more distant. Library access for the more local classes is not difficult; but for students living at a distance, the four or five hour drive required makes on-site use of the Cardinal Stritch library impractical.

Aware that the home library is not equally accessible to all, the library staff has assumed responsibility for providing information services to all students involved in the off-campus programs regardless of their location. Some of the services provided by the Cardinal Stritch library include a toll-free number that enables the student to contact a professional librarian for research and reference assistance during regular library hours. Books can be renewed by phone. Photocopying of journal articles is provided, as well as document delivery, interlibrary loan and telefacsimile from the library to the student, if they have the necessary equipment. Bibliographic instruction and database searching are also available.

The curricula of these various non-traditional programs require that the student conduct some job-related research. To assist him/her with this culminating project, each student may have a database search done on the topic, the cost of which is included in tuition fees.
Since their inception in 1982, the non-traditional programs have grown rapidly and there has been a corresponding demand for library information services. During the first five years, the Stritch library has used DIALOG for database searching. Increased usage and a substantial rise in the cost of the most frequently used bases prompted the search for more economical methods for delivery of database sources.

During the past two years the professional library literature has referred with increasing frequency to a system called InfoTrac. Information Access Company (IAC) first demonstrated its InfoTrac system to the library world at the American Library Association convention in Washington, D.C. in January of 1985. The system had its enthusiastic proponents as well as its equally energetic critics. The success and acceptance of the system at Colorado State University (Ernest, 1986) and the student's pleasure and delight at Meriam Library, California State University/Chico (Kent, 1986) are typical of the responses from most locations with InfoTrac. Other institutions may have had an experience similar to that of the University of Wyoming Libraries (Van Arsdale, 1986) and have foregone the purchase of InfoTrac. The shortcomings and limitations of the system are not as important to the students as they appear to be to the librarian.

Spurred on by its controversial aspects and encouraged by the positive comments it has received, the professional library staff at Cardinal Stritch decided to carry out its own investigation of the merits and shortcomings of the InfoTrac system. We needed to answer several questions: Would the use of InfoTrac enable us to give service to our patrons? How would the cost of the DIALOG and InfoTrac systems compare?

To answer these questions, we needed, first, to assess our own situation before we could meaningfully project the usefulness of this alternative system. Records showed that there were well over 2500 individual searches made during the period from July 1985 to April 1987. Each search, on the average, required the use of 4.5 different DIALOG databases at a total library cost of nearly $36,500 or about $14.20 per search. These data appear in Tables 1 and 2. Although this was no formal study made of interlibrary loan during this period, it
Before InfoTrac

Table 1

Summary of DIALOG usage for July 1985 - June 1986

<table>
<thead>
<tr>
<th>DATABASES</th>
<th># PRINTS</th>
<th># TYPES</th>
<th># SEARCHES</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1985</td>
<td>26</td>
<td>7,193</td>
<td>66</td>
<td>213</td>
</tr>
<tr>
<td>August 1985</td>
<td>11</td>
<td>1,481</td>
<td>4</td>
<td>52</td>
</tr>
<tr>
<td>Sept. 1985</td>
<td>19</td>
<td>3,007</td>
<td>4</td>
<td>102</td>
</tr>
<tr>
<td>Nov. 1985</td>
<td>37</td>
<td>4,223</td>
<td>9</td>
<td>186</td>
</tr>
<tr>
<td>Dec. 1985</td>
<td>36</td>
<td>7,099</td>
<td>259</td>
<td>242</td>
</tr>
<tr>
<td>Jan. 1986</td>
<td>5</td>
<td>534</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Feb. 1986</td>
<td>11</td>
<td>1,304</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>March 1986</td>
<td>34</td>
<td>7,043</td>
<td>94</td>
<td>246</td>
</tr>
<tr>
<td>April 1986</td>
<td>34</td>
<td>2,417</td>
<td>64</td>
<td>101</td>
</tr>
<tr>
<td>May 1986</td>
<td>35</td>
<td>6,079</td>
<td>5</td>
<td>198</td>
</tr>
<tr>
<td>June 1986</td>
<td>8</td>
<td>97</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>TOTAL</td>
<td>36,976</td>
<td>746</td>
<td>1,588</td>
<td>$22,120.94</td>
</tr>
</tbody>
</table>

Table 2

Summary of DIALOG usage for July 1986 - April 1987

<table>
<thead>
<tr>
<th>DATABASES</th>
<th># PRINTS</th>
<th># TYPES</th>
<th># SEARCHES</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1986</td>
<td>20</td>
<td>3,928</td>
<td>56</td>
<td>126</td>
</tr>
<tr>
<td>August 1986</td>
<td>26</td>
<td>4,138</td>
<td>10</td>
<td>97</td>
</tr>
<tr>
<td>Sept. 1986</td>
<td>26</td>
<td>2,739</td>
<td>4</td>
<td>88</td>
</tr>
<tr>
<td>Oct. 1986</td>
<td>25</td>
<td>2,762</td>
<td>9</td>
<td>78</td>
</tr>
<tr>
<td>Nov. 1986</td>
<td>27</td>
<td>3,497</td>
<td>41</td>
<td>129</td>
</tr>
<tr>
<td>Dec. 1986</td>
<td>16</td>
<td>1,788</td>
<td>34</td>
<td>69</td>
</tr>
<tr>
<td>Jan. 1987</td>
<td>19</td>
<td>2,501</td>
<td>96</td>
<td>73</td>
</tr>
<tr>
<td>Feb. 1987</td>
<td>27</td>
<td>3,030</td>
<td>36</td>
<td>99</td>
</tr>
<tr>
<td>March 1987</td>
<td>38</td>
<td>3,713</td>
<td>64</td>
<td>38</td>
</tr>
<tr>
<td>April 1987</td>
<td>23</td>
<td>1,433</td>
<td>144</td>
<td>91</td>
</tr>
<tr>
<td>TOTAL</td>
<td>28,729</td>
<td>464</td>
<td>983</td>
<td>$14,377.68</td>
</tr>
</tbody>
</table>
was evident that this service, too, needed to be increased considerably in order to accommodate the students' requests. Another factor promoting the search for alternative and more economical resources, was the substantial cost for periodical subscriptions. The extensive range of titles used by students for research made it necessary to have access to these serials either by ownership of the title itself, or by some other means.

In May 1987, the California-based IAC agreed to place an InfoTrac system in the Cardinal Stritch College Library for a two month trial period. The timing corresponded to the College's summer session, when most of the traditional students were not on campus. Since the non-traditional students follow a different schedule and are frequent library patrons, these students quickly discovered InfoTrac and became enthusiastic users. Responses to the standard questionnaire provided by IAC surveying user reaction to the system were overwhelmingly enthusiastic. The most consistent comment from users praised the speed of the system and its "user-friendliness." Faculty were equally impressed with the performance of the system.

As a result of this positive feedback and our own experience, we decided to purchase the system. Our investment of some $26,300 bought us two InfoTrac stations, a one year subscription to the Business Collection and a 3-M Reader/Printer. A basic InfoTrac system consists of a microcomputer, monitor, printer, videodisc and player, a controller and software to operate the videodisc system. InfoTrac combines up to six microcomputers and printers with the databases stored on a 12-inch laser disc. The capacity of the disc allows approximately 2.5 million references, equivalent to four years of citations. In the spring of 1988, IAC added 235 new titles from the social sciences and humanities to the InfoTrac bank. The number of periodicals now indexed is over 1100.

InfoTrac uses the latest in technological advances--computer access to a laser disc-stored database--to retrieve information, thus providing almost unlimited access to an enormous number of citations. The database provides coverage of current events and general interest topics as well as information on business, management, products, industries and economics. Current indexing of The Wall Street Journal and The New York Times as well as a number of regional publications such as the Milwaukee Business Journal provide coverage of the most recent four years. Monthly updates provide the most current information so that users find citations to articles as current as 15-30 days after the publication date. "The databases are structured around Library of Congress subject headings, corporate and personal names (used as
subjects), authors, and titles. Each reference offers a full bibliographic citation including article headline, author's name (if available), publication name, issue number, date, the page number(s) on which the article is contained, and an accession code number if full text to the article is available in IAC's Magazine Collection or Business Collection" (Carney, 1985).

In the summer of 1987 Information Access Corporation developed connecting software which allows an upgraded workstation to access both the InfoTrac databases as well as DIALOG On-Disc CD-ROM databases.

Operation of the InfoTrac system is very easy. A general search of a broad area such as "small business", for example, will call up a display of a list of topical subdivisions and cross references. The searcher can scan the subheadings, make a selection, press the SEARCH button and a listing of pertinent bibliographic references will appear on the screen. The searcher can then move forward or backward from citation to citation and print any desired reference that shows on the screen. The base of the search can be expanded by reference to "see" and "see also" listings by alignment of the cursor with the appropriate reference and pressing the SEARCH key. In this way a sizable bibliography of current references can be generated.

The Business Collection is an additional IAC tool that interdigitates with InfoTrac providing access to major trade, industry and business periodicals, and selected specific news or feature articles all in a single system. The Business Collection is a self-contained unit consisting of microfilm cassettes of the complete contents of more than 400 business publications. The cassettes are loaded into a microfilm reader/printer, scanned and selections made. Any desired material can be duplicated by the hard copy printer.

A citation from InfoTrac contained in the Business Collection is tagged with an alphanumeric code indicating the microfilm cassette where the article is located. The first three symbols of the seven digit code indicate the microfilm cartridge; the last four digits refer to the frame number where the desired article is located. Using the code, the appropriate cassette can be readily selected from the storage carousel and inserted into the reader/printer. The user is able to advance the film quickly to the frame number of the desired article for immediate reading and/or printing.

Biweekly updates insure current business information. The compact carousel houses cartridges containing millions of articles
on business, news, case studies, technology and industry profiles. The space required for this system is minimal. The Business Collection has allowed our library to increase its periodical holdings by over 300 titles. It also gives researchers immediate access to articles not in our library. Although some of the serials titles in the Business Collection would appear to be inappropriate or of little use in the Cardinal Stritch library, and there would ordinarily be no heed or desire to purchase them, a few researchers have discovered useful items in a number of listings through the use of InfoTrac. The cost to the Cardinal Stritch library for subscriptions to all of these titles would be well in excess of $11,600. This amount includes only those titles for which information was readily available either in InfoTrac itself or could be located in Ulrich's International Periodicals Directory. There were approximately 80 titles, most of which were regional publications, for which a price could not be determined. Appendix A lists the titles included in the Business Collection along with their current annual subscription cost.

Once they were in place, the InfoTrac and Business Collection systems were used on a consistent basis to perform searches for the research topics of the off-campus students. These searches were performed by a professional librarian after a pre-search interview like that which preceded the DIALOG search. Students whose classes met on campus used the InfoTrac and Business Collection themselves to assist their research. Additional databases were used when necessary through DIALOG.

As the first year's usage of InfoTrac at Cardinal Stritch College library was nearing its end, a survey of the 169 off-campus students whose search was done using this tool was made to determine their level of satisfaction with the results. A copy of the questionnaire can be found in Appendix B.

During the period from May 1987 until mid-April 1988, 10 classes of students in the Bachelor of Science in Management (BSM) and 13 classes in the Masters of Management (MSM) met with a librarian at the off-campus site for research methodology. If InfoTrac was an appropriate system for the specific topic being researched, it was used. In the case of two classes in the Master of Science in Health Science Administration and for some of the management research projects, other databases were deemed more appropriate. Table 3 summarizes these data for the period of May 1987 until mid-April 1988, and shows that for both groups, InfoTrac was an appropriate database in more than half of the searches.
Table 3

Summary of numbers of off-campus students whose projects could be researched using InfoTrac at the Bachelor's and Master's level

<table>
<thead>
<tr>
<th></th>
<th>BSM</th>
<th>MSM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Classes</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>Total Number of Students</td>
<td>138</td>
<td>168</td>
</tr>
<tr>
<td>Number receiving InfoTrac</td>
<td>84</td>
<td>85</td>
</tr>
<tr>
<td>% receiving InfoTrac</td>
<td>60.9</td>
<td>50.6</td>
</tr>
</tbody>
</table>

In mid-March, 1988, 169 simple ten-question surveys were mailed to the off-campus students who received InfoTrac search assistance. Of those sent, 88 or 52.7% were returned. Table 4 summarizes these data.

Table 4

Summary of responses by degree

<table>
<thead>
<tr>
<th>Student Status</th>
<th>Surveys Sent</th>
<th>Surveys Returned</th>
<th>% Returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelors</td>
<td>84</td>
<td>45</td>
<td>53.6%</td>
</tr>
<tr>
<td>Masters</td>
<td>85</td>
<td>43</td>
<td>50.5%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>169</td>
<td>88</td>
<td></td>
</tr>
</tbody>
</table>

In general, student response to the InfoTrac search was favorable as summarized in Tables 5, 6 and 7. Those students who did not find the printouts of help, frequently commented that they had access to numerous databases in their place of employment, used specialized libraries at their workplace or availed themselves of database searches at public or academic libraries nearer to their home. A few stated that they had changed their research topic and consequently the search was of no use at all! The ease with which InfoTrac can be used, its broad coverage and its interdigitation with the Business Collection make it a
powerful tool for anyone searching managerial or administrative topics such as the students in Stritch's non-traditional program.

Table 5
Summary of responses to selected survey questions

<table>
<thead>
<tr>
<th></th>
<th>GRAD (#{43})</th>
<th></th>
<th>UNDERGRAD (#{45})</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YES</td>
<td>NO</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>1. InfoTrac helpful</td>
<td>36</td>
<td>6</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>83.7%</td>
<td>13.9%</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>2. Easy to use</td>
<td>39</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>90.7%</td>
<td>4.7%</td>
<td>4.7%</td>
<td></td>
</tr>
<tr>
<td>3. Use any citations</td>
<td>35</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>81.4%</td>
<td>16.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Request copies</td>
<td>29</td>
<td>16</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>67.4%</td>
<td>37.2%</td>
<td>4.7%</td>
<td></td>
</tr>
<tr>
<td>7. Sufficient coverage</td>
<td>31</td>
<td>11</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>72.1%</td>
<td>25.6%</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>8. Other sources</td>
<td>29</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>than InfoTrac</td>
<td>90.1%</td>
<td>16.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Highlighting</td>
<td>36</td>
<td>6</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>helpful</td>
<td>83.7%</td>
<td>13.9%</td>
<td>2.3%</td>
<td></td>
</tr>
</tbody>
</table>
Table 6

Summary of number of citations generated by InfoTrac used by students. (Response to question 4 of survey)

<table>
<thead>
<tr>
<th></th>
<th>G(#43)</th>
<th>UNDERGRAD(#45)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Citations used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>6 = 13.9%</td>
<td>8 = 17.8%</td>
</tr>
<tr>
<td>1 - 5</td>
<td>7 = 16.3%</td>
<td>5 = 11.1%</td>
</tr>
<tr>
<td>6 - 10</td>
<td>7 = 16.3%</td>
<td>16 = 35.6%</td>
</tr>
<tr>
<td>11 - 15</td>
<td>8 = 18.6%</td>
<td>6 = 13.3%</td>
</tr>
<tr>
<td>16 - 20</td>
<td>2 = 4.7%</td>
<td>2 = 4.4%</td>
</tr>
<tr>
<td>20 - 25</td>
<td>5 = 11.6%</td>
<td>2 = 4.4%</td>
</tr>
<tr>
<td>30+</td>
<td>6 = 13.9%</td>
<td>3 = 6.7%</td>
</tr>
</tbody>
</table>
Table 7

Summary of percentage of citations from InfoTrac which were helpful to student research. (Response to question 5 of survey)

<table>
<thead>
<tr>
<th>Percent of helpful citations</th>
<th>GRA (#43)</th>
<th>UNDERGRAD (#45)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10%</td>
<td>7 = 16.3%</td>
<td>8 = 17.8%</td>
</tr>
<tr>
<td>10 - 25%</td>
<td>5 = 11.6%</td>
<td>11 = 24.4%</td>
</tr>
<tr>
<td>25 - 50%</td>
<td>11 = 25.6%</td>
<td>9 = 20.0%</td>
</tr>
<tr>
<td>More than 50%</td>
<td>9 = 20.9%</td>
<td>8 = 17.8%</td>
</tr>
<tr>
<td>Do not recall</td>
<td>3 = 6.9%</td>
<td>2 = 4.4%</td>
</tr>
<tr>
<td>None</td>
<td>6 = 13.9%</td>
<td>7 = 15.6%</td>
</tr>
<tr>
<td>No response</td>
<td>2 = 4.4%</td>
<td></td>
</tr>
</tbody>
</table>

Several points should be kept in mind in reviewing the survey results. Students did not perform their own InfoTrac search. It was performed by a librarian and sent to the student. Students, in most instances, received a packet of material consisting of several hundred citations. Since on-line costs are not a factor in using InfoTrac, much more time can be devoted to carrying out a search and the results can be much more extensive than might be the case with an on-line search.

Not only has the InfoTrac search been favorably received by students, but the Business Collection has provided an additional boon for our library. As a direct result of InfoTrac searches more than 1,510 requests for articles have been received from students enrolled in off-campus programs. Of this number, 656 requests were filled by means of the Business Collection, all titles that our library did not own. The students were pleased with the short turn-around time required to receive their requests. Most often the printed copy of their request is received by them within a few days rather than the weeks that are sometimes required to obtain materials from outside sources.
Use of the Business Collection is advantageous from an economic standpoint as well. If this number of requests had been filled by interlibrary loan, or by outright purchase of the titles, the costs would have been prohibitive by comparison to the investment in the Business Collection. At a conservative estimate of $7.00 per loan transaction the estimated cost of this service would have been $4,592. The library has been able to put this conservation of resources and personnel to other very good uses. Although the dollar savings have been important to the library, the public relations factor and the time reduction provided by the Business Collection has been invaluable.

Some of the conclusions to be drawn from this information are obvious. General student satisfaction with the InfoTrac system is probably the most apparent observation. While it may be necessary for students to go beyond the sources accessed by InfoTrac in order to do in-depth research of their topics, the numerous articles listed on the printouts can facilitate the rapid generation of a very respectable and scholarly bibliography. Anyone who does research is aware that a single instrument, even one with the versatility of InfoTrac, is not sufficient for all purposes. Used to its fullest, however, the system can provide a solid base upon which to build.

The off-campus student frequently does not have access to an academic librarian who takes a personal, professional interest in his/her research project, or may not have the technology to access information efficiently. We hope that we have addressed their needs by providing some of these services, with InfoTrac being at the center of their bibliographic search and with sound, personalized research instruction.

The controversy surrounding InfoTrac and its use as a research tool will probably continue for some time. One institution, nevertheless, has found that from an economic aspect the system has been well worth the investment. The undeniable user satisfaction and acceptance of InfoTrac have given momentum to Cardinal Stritch College library to look at other technologies. Students, both on- and off-campus, have only good things to say about InfoTrac and they are coming to the library specifically to use it. This alone is worth a great deal. The fanfare that surrounded the introduction of InfoTrac and the wholehearted user reaction has made the library community more aware of this system than any new library resource in recent memory. The library community has acknowledged InfoTrac with a dubious and skeptical attitude. The blase point of view of many librarians has been counterbalanced by the more than warm welcome given InfoTrac by
students. It would appear that InfoTrac and like systems are here to stay. Their popularity with students are not about to dwindle. Cardinal Stritch College will continue to use this technology to facilitate the research of our off-campus students and anticipates continued positive feedback from them. The combination of InfoTrac and the Business Collection are a dynamic duo that have played a large and successful part in the operation of the Cardinal Stritch College off-campus program.

Author's Note

I gratefully acknowledge the assistance of Sr. Mary Ann Polasek with this paper.
References


Appendix A

**Business Collection**

<table>
<thead>
<tr>
<th>Magazine/Report</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABA Banking Journal</td>
<td>$30.00</td>
</tr>
<tr>
<td>Accounting &amp; Finance</td>
<td>22.00</td>
</tr>
<tr>
<td>Across the Board</td>
<td>30.00</td>
</tr>
<tr>
<td>Administration &amp; Society</td>
<td>20.00</td>
</tr>
<tr>
<td>Administrative Science Quarterly</td>
<td>67.50</td>
</tr>
<tr>
<td>Advertising World</td>
<td>30.00</td>
</tr>
<tr>
<td>ATIE Industrial Management</td>
<td>20.00</td>
</tr>
<tr>
<td>Air Conditioning, Heating &amp; Refrigeration News</td>
<td>47.00</td>
</tr>
<tr>
<td>Air Transport World</td>
<td>55.00</td>
</tr>
<tr>
<td>American City &amp; County</td>
<td>39.00</td>
</tr>
<tr>
<td>American Forests</td>
<td>15.00</td>
</tr>
<tr>
<td>American Journal of Small Business</td>
<td>27.00</td>
</tr>
<tr>
<td>American Shipper</td>
<td>15.00</td>
</tr>
<tr>
<td>Appliance Manufacturer</td>
<td>40.00</td>
</tr>
<tr>
<td>Arizona Business</td>
<td>12.00</td>
</tr>
<tr>
<td>Association Management</td>
<td>24.00</td>
</tr>
<tr>
<td>Atlanta Business Chronicle</td>
<td>15.00</td>
</tr>
<tr>
<td>Austin Business Journal</td>
<td>15.00</td>
</tr>
<tr>
<td>Automotive Industries</td>
<td>36.00</td>
</tr>
<tr>
<td>Automotive News</td>
<td>45.00</td>
</tr>
<tr>
<td>Back Stage</td>
<td>35.00</td>
</tr>
<tr>
<td>Baltimore Business Journal</td>
<td>20.00</td>
</tr>
<tr>
<td>Bank Marketing</td>
<td>48.00</td>
</tr>
<tr>
<td>The Banker</td>
<td>138.00</td>
</tr>
<tr>
<td>Bankers Magazine</td>
<td>60.00</td>
</tr>
<tr>
<td>Bankers Monthly</td>
<td>24.00</td>
</tr>
<tr>
<td>Baton Rouge Business Report</td>
<td>18.00</td>
</tr>
<tr>
<td>Best's Review Life-Health Insurance Edition</td>
<td>14.00</td>
</tr>
<tr>
<td>Best's Review Property-Casualty Insurance Edition</td>
<td>14.00</td>
</tr>
<tr>
<td>Beverage World</td>
<td>32.00</td>
</tr>
<tr>
<td>Business America</td>
<td>57.00</td>
</tr>
<tr>
<td>Business Society</td>
<td>56.00</td>
</tr>
<tr>
<td>Business Atlanta</td>
<td>15.00</td>
</tr>
<tr>
<td>Business Economics</td>
<td>30.00</td>
</tr>
<tr>
<td>Business History Review</td>
<td>25.00</td>
</tr>
<tr>
<td>Business Insurance</td>
<td>75.00</td>
</tr>
<tr>
<td>Business Journal of New Jersey</td>
<td>24.00</td>
</tr>
<tr>
<td>Business North Carolina</td>
<td>15.00</td>
</tr>
<tr>
<td>Business Quarterly</td>
<td>30.00</td>
</tr>
<tr>
<td>California Business</td>
<td>15.00</td>
</tr>
<tr>
<td>California Management Review</td>
<td>36.00</td>
</tr>
<tr>
<td>Canadian Banker</td>
<td>20.00</td>
</tr>
<tr>
<td>Canadian Business Review</td>
<td>24.00</td>
</tr>
<tr>
<td>Canadian Manager</td>
<td>14.00</td>
</tr>
<tr>
<td>Magazine Title</td>
<td>Price</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Capital District Business Review</td>
<td>$ 9.95</td>
</tr>
<tr>
<td>Caribbean Business</td>
<td>30.00</td>
</tr>
<tr>
<td>Central New York Business Review</td>
<td>$ 9.95</td>
</tr>
<tr>
<td>Chain Store Age - Executive Edition</td>
<td>20.00</td>
</tr>
<tr>
<td>Chain Store Age - General Merchandise Trends</td>
<td>25.00</td>
</tr>
<tr>
<td>Charlotte Business Quarterly</td>
<td>8.00</td>
</tr>
<tr>
<td>Cincinnati Business Courier</td>
<td></td>
</tr>
<tr>
<td>City Business-Minneapolis</td>
<td></td>
</tr>
<tr>
<td>CMA-The Management Accounting Magazine</td>
<td>24.00</td>
</tr>
<tr>
<td>Colorado Business Magazine</td>
<td>28.00</td>
</tr>
<tr>
<td>Columbia Journal of World Business</td>
<td>40.00</td>
</tr>
<tr>
<td>Communication World</td>
<td>105.00</td>
</tr>
<tr>
<td>Computer Pictures</td>
<td>15.00</td>
</tr>
<tr>
<td>Connecticut Business</td>
<td>35.00</td>
</tr>
<tr>
<td>Construction Review</td>
<td>19.00</td>
</tr>
<tr>
<td>Consultant</td>
<td>36.00</td>
</tr>
<tr>
<td>Corporate Board</td>
<td>190.00</td>
</tr>
<tr>
<td>Corporate Monthly</td>
<td>18.00</td>
</tr>
<tr>
<td>Corporate Report-Kansas City</td>
<td>21.00</td>
</tr>
<tr>
<td>Corporate Report-Minnesota</td>
<td>21.00</td>
</tr>
<tr>
<td>CPA Journal</td>
<td>34.00</td>
</tr>
<tr>
<td>Crain's Chicago Business</td>
<td>32.00</td>
</tr>
<tr>
<td>Crain's Detroit Business</td>
<td></td>
</tr>
<tr>
<td>Crain's Illinois Business</td>
<td>10.00</td>
</tr>
<tr>
<td>Crain's New York Business</td>
<td></td>
</tr>
<tr>
<td>Credit</td>
<td></td>
</tr>
<tr>
<td>Credit &amp; Financial Management</td>
<td>15.00</td>
</tr>
<tr>
<td>D &amp; B Reports</td>
<td>20.00</td>
</tr>
<tr>
<td>Dallas-Fort Worth Business</td>
<td></td>
</tr>
<tr>
<td>Data Management</td>
<td>16.00</td>
</tr>
<tr>
<td>Denver Business</td>
<td>28.00</td>
</tr>
<tr>
<td>Design News</td>
<td>30.00</td>
</tr>
<tr>
<td>Direct Marketing</td>
<td>42.00</td>
</tr>
<tr>
<td>Directors &amp; Boards</td>
<td>115.00</td>
</tr>
<tr>
<td>Discount Store News</td>
<td>20.00</td>
</tr>
<tr>
<td>Distribution</td>
<td>25.00</td>
</tr>
<tr>
<td>Economic Indicators</td>
<td>32.00</td>
</tr>
<tr>
<td>Economic Inquiry</td>
<td>100.00</td>
</tr>
<tr>
<td>Economic Record</td>
<td>50.00</td>
</tr>
<tr>
<td>EDN</td>
<td>70.00</td>
</tr>
<tr>
<td>Electric Light &amp; Power</td>
<td>24.00</td>
</tr>
<tr>
<td>Electronic Business</td>
<td>40.00</td>
</tr>
<tr>
<td>Employee Benefits Journal</td>
<td>25.00</td>
</tr>
<tr>
<td>Employee Relations Law Journal</td>
<td>108.00</td>
</tr>
<tr>
<td>Employee Relations Today</td>
<td>120.00</td>
</tr>
<tr>
<td>Engineering Economist</td>
<td>12.00</td>
</tr>
<tr>
<td>Euromoney</td>
<td>168.00</td>
</tr>
<tr>
<td>Executive</td>
<td>20.00</td>
</tr>
<tr>
<td>Executive Report</td>
<td>$40.00</td>
</tr>
<tr>
<td>------------------</td>
<td>--------</td>
</tr>
<tr>
<td>FE: The Magazine for Financial Executives</td>
<td>36.00</td>
</tr>
<tr>
<td>Federal Reserve Bank of New York Quarterly Review</td>
<td>40.00</td>
</tr>
<tr>
<td>Financial Analysts Journal</td>
<td>41.95</td>
</tr>
<tr>
<td>Financial Management</td>
<td>18.00</td>
</tr>
<tr>
<td>Financial World</td>
<td>58.00</td>
</tr>
<tr>
<td>Florida Trend Magazine</td>
<td>45.00</td>
</tr>
<tr>
<td>Focus-Metropolitan Phil. Business Newsweekly</td>
<td>35.00</td>
</tr>
<tr>
<td>Folio: The Magazine for Magazine Management</td>
<td>20.00</td>
</tr>
<tr>
<td>Forest Industries</td>
<td>160.00</td>
</tr>
<tr>
<td>Foundry Management &amp; Technology</td>
<td>12.00</td>
</tr>
<tr>
<td>Fusion</td>
<td>34.00</td>
</tr>
<tr>
<td>Futures</td>
<td>24.00</td>
</tr>
<tr>
<td>Futures: Magazine of Commodities &amp; Options</td>
<td>18.00</td>
</tr>
<tr>
<td>GAO Review</td>
<td>50.00</td>
</tr>
<tr>
<td>Gifts &amp; Decorative Accessories</td>
<td>35.00</td>
</tr>
<tr>
<td>Government Finance Review</td>
<td>30.00</td>
</tr>
<tr>
<td>Graphic Arts Monthly</td>
<td>35.00</td>
</tr>
<tr>
<td>Handling &amp; Shipping Management</td>
<td>18.00</td>
</tr>
<tr>
<td>Hardware Age</td>
<td>25.00</td>
</tr>
<tr>
<td>Hawaii Business</td>
<td>18.00</td>
</tr>
<tr>
<td>Health Services Research</td>
<td>35.00</td>
</tr>
<tr>
<td>Highway &amp; Heavy Construction</td>
<td>35.00</td>
</tr>
<tr>
<td>Hospital &amp; Health Services Administration</td>
<td>72.00</td>
</tr>
<tr>
<td>Hotels &amp; Restaurants International</td>
<td>26.00</td>
</tr>
<tr>
<td>Housing Finance Review</td>
<td>40.00</td>
</tr>
<tr>
<td>Houston Business Journal</td>
<td>30.00</td>
</tr>
<tr>
<td>Human Resource Planning</td>
<td>10.00</td>
</tr>
<tr>
<td>Hydraulics &amp; Pneumatics</td>
<td>22.05</td>
</tr>
<tr>
<td>Illinois Business Review</td>
<td>35.00</td>
</tr>
<tr>
<td>Implement &amp; Tractor</td>
<td>85.00</td>
</tr>
<tr>
<td>Independent Professional</td>
<td>25.00</td>
</tr>
<tr>
<td>Indiana Business Magazine</td>
<td>30.00</td>
</tr>
<tr>
<td>Indianapolis Business Journal</td>
<td>165.00</td>
</tr>
<tr>
<td>Industrial Development</td>
<td>36.00</td>
</tr>
<tr>
<td>Industrial Engineering</td>
<td>299.00</td>
</tr>
<tr>
<td>Industrial Management</td>
<td>12.00</td>
</tr>
<tr>
<td>Industrial Relations</td>
<td>325.00</td>
</tr>
<tr>
<td>Industrial Society</td>
<td>25.00</td>
</tr>
<tr>
<td>Inquiry</td>
<td>35.00</td>
</tr>
<tr>
<td>Insiders' Chronicle</td>
<td>45.00</td>
</tr>
<tr>
<td>Institutional Distribution</td>
<td>35.95</td>
</tr>
<tr>
<td>Institutional Investor</td>
<td>30.00</td>
</tr>
<tr>
<td>Insurance Review</td>
<td>30.00</td>
</tr>
<tr>
<td>Interfaces</td>
<td>165.00</td>
</tr>
<tr>
<td>Interior Design</td>
<td>36.00</td>
</tr>
<tr>
<td>International Advertiser</td>
<td>299.00</td>
</tr>
<tr>
<td>International Journal of Government Auditing</td>
<td>5.00</td>
</tr>
<tr>
<td>Journal Name</td>
<td>Price</td>
</tr>
<tr>
<td>------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>International Studies of Management &amp; Organization</td>
<td>$37.00</td>
</tr>
<tr>
<td>International Trade Forum</td>
<td>12.00</td>
</tr>
<tr>
<td>Iron Age</td>
<td>30.00</td>
</tr>
<tr>
<td>Jewelers Circular Keystone</td>
<td></td>
</tr>
<tr>
<td>Journal of Advertising</td>
<td>24.00</td>
</tr>
<tr>
<td>Journal of Advertising Research</td>
<td>58.00</td>
</tr>
<tr>
<td>Journal of American Insurance</td>
<td></td>
</tr>
<tr>
<td>Journal of Behavioral Economics</td>
<td>16.00</td>
</tr>
<tr>
<td>Journal of Business Strategy</td>
<td>72.00</td>
</tr>
<tr>
<td>Journal of Commercial Bank Lending</td>
<td>24.50</td>
</tr>
<tr>
<td>Journal of Communication Management</td>
<td>80.00</td>
</tr>
<tr>
<td>Journal of Consumer Research</td>
<td>66.00</td>
</tr>
<tr>
<td>Journal of Corporate Taxation</td>
<td>40.00</td>
</tr>
<tr>
<td>Journal of Development Studies</td>
<td>77.00</td>
</tr>
<tr>
<td>Journal of Economic Issues</td>
<td>22.00</td>
</tr>
<tr>
<td>Journal of Finance</td>
<td>50.00</td>
</tr>
<tr>
<td>Journal of Financial &amp; Quantitative Analysis</td>
<td>25.00</td>
</tr>
<tr>
<td>Journal of Human Resources</td>
<td>40.00</td>
</tr>
<tr>
<td>Journal of Insurance</td>
<td>9.00</td>
</tr>
<tr>
<td>Journal of International Business Studies</td>
<td>35.00</td>
</tr>
<tr>
<td>Journal of Labor Research</td>
<td>55.00</td>
</tr>
<tr>
<td>Journal of Management</td>
<td>34.00</td>
</tr>
<tr>
<td>Journal of Occupational Psychology</td>
<td>79.50</td>
</tr>
<tr>
<td>Journal of Portfolio Management</td>
<td>135.00</td>
</tr>
<tr>
<td>Journal of Post Keynesian Economics</td>
<td>45.00</td>
</tr>
<tr>
<td>Journal of Property Management</td>
<td>18.00</td>
</tr>
<tr>
<td>Journal of Purchasing &amp; Materials Management</td>
<td>20.00</td>
</tr>
<tr>
<td>Journal of Retail Banking</td>
<td>75.00</td>
</tr>
<tr>
<td>Journal of Small Business Management</td>
<td>10.00</td>
</tr>
<tr>
<td>Journal of Taxation</td>
<td>48.00</td>
</tr>
<tr>
<td>Journal of the Academy of Marketing Science</td>
<td>30.00</td>
</tr>
<tr>
<td>Journal of the American Planning Association</td>
<td>22.00</td>
</tr>
<tr>
<td>J. of the Amer. Real Estate &amp; Urban Econ. Assoc.</td>
<td>150.00</td>
</tr>
<tr>
<td>Journal of the Society of Research Administrators</td>
<td>25.00</td>
</tr>
<tr>
<td>Journal Record</td>
<td>98.00</td>
</tr>
<tr>
<td>Kansas Business News</td>
<td>15.00</td>
</tr>
<tr>
<td>Kansas City Business Journal</td>
<td></td>
</tr>
<tr>
<td>Labor Today</td>
<td></td>
</tr>
<tr>
<td>LaCrosse City Business</td>
<td></td>
</tr>
<tr>
<td>Land Economics</td>
<td>40.00</td>
</tr>
<tr>
<td>Lloyds Bank Review</td>
<td></td>
</tr>
<tr>
<td>Logistics &amp; Transportation Review</td>
<td>30.00</td>
</tr>
<tr>
<td>Long Island Business</td>
<td>49.00</td>
</tr>
<tr>
<td>Los Angeles Business Journal</td>
<td></td>
</tr>
<tr>
<td>Louisville Magazine</td>
<td></td>
</tr>
<tr>
<td>Machine Design</td>
<td>60.00</td>
</tr>
<tr>
<td>Madison Avenue</td>
<td>36.00</td>
</tr>
<tr>
<td>Manage</td>
<td>5.00</td>
</tr>
</tbody>
</table>
Management Accounting (USA) $54.00
Management Quarterly 10.00
Management Science 90.00
Managerial Planning 50.00
Managers Magazine 45.00
Managing 9.00
Manchester Journal 12.00
Manitoba Business 12.00
Marine Fisheries Review 8.75
Marketing 128.00
Maryland Business & Living Journal 12.00
Mathematics of Operations Research 55.00
Meetings & Conventions 30.00
Memphis Business Journal 24.00
Mergers & Acquisitions 129.00
Metropolitan Life Insurance Statistical Bull. 25.00
Miami Review 25.00
Michigan Business 6.00
Michigan CPA 4.00
Mid-Atlantic Journal of Business 6.00
Mid South Business Journal
Mini-Micro Systems 65.00
Minnesota Business Journal 10.00
Mississippi Business Journal 30.00
Modern Floor Coverings
Modern Machine Shop 50.00
Modern Materials Handling 30.00
Modern Office Technology 24.00
Modern Office Procedures 24.00
Modern Tire Dealer 10.00
Montana Business Quarterly 24.00
Monthly Review 27.00
Mortgage Banking 12.00
Motor Age 268.00
Multinational Business 108.00
National Productivity Review 15.00
National Public Accountant 39.00
Nation's Restaurant News
NBER Reporter
Nebraska Journal of Economics & Business 5.00
New Business 25.00
New Business-Sarasota Manatee 24.00
New England Business 9.00
New Hampshire Business Journal 9.00
New Hampshire Business Review 9.00
New Jersey Success 16.00
New Mexico Business Journal 21.00
New York City Business
<table>
<thead>
<tr>
<th>Title</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Ontario Business</td>
<td>$9.00</td>
</tr>
<tr>
<td>Nursing Homes</td>
<td>25.00</td>
</tr>
<tr>
<td>Occupational Hazards</td>
<td>35.00</td>
</tr>
<tr>
<td>OECD Economic Outlook</td>
<td>25.00</td>
</tr>
<tr>
<td>The Office</td>
<td>40.00</td>
</tr>
<tr>
<td>Ohio Business</td>
<td>24.00</td>
</tr>
<tr>
<td>Ohio CPA Journal</td>
<td>5.00</td>
</tr>
<tr>
<td>Online</td>
<td>85.00</td>
</tr>
<tr>
<td>Orange County Business Journal</td>
<td>10.00</td>
</tr>
<tr>
<td>Oregon Business Magazine</td>
<td></td>
</tr>
<tr>
<td>Orlando Business Journal</td>
<td></td>
</tr>
<tr>
<td>Outlook</td>
<td>10.00</td>
</tr>
<tr>
<td>Overdrive</td>
<td>23.00</td>
</tr>
<tr>
<td>Pacific Business News</td>
<td></td>
</tr>
<tr>
<td>Package Engineering</td>
<td></td>
</tr>
<tr>
<td>Packaging</td>
<td></td>
</tr>
<tr>
<td>Packaging Digest</td>
<td>25.00</td>
</tr>
<tr>
<td>Patient Care</td>
<td>42.00</td>
</tr>
<tr>
<td>Philadelphia Business Journal</td>
<td></td>
</tr>
<tr>
<td>Phoenix Business Journal</td>
<td></td>
</tr>
<tr>
<td>Photographic Society of America Journal</td>
<td>20.00</td>
</tr>
<tr>
<td>Pit and Quarry</td>
<td>12.00</td>
</tr>
<tr>
<td>Pittsburg Business Journal</td>
<td></td>
</tr>
<tr>
<td>Pittsburg Business Times</td>
<td></td>
</tr>
<tr>
<td>Pittsburg Business Times-Journal</td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td>29.00</td>
</tr>
<tr>
<td>Planning Review</td>
<td>50.00</td>
</tr>
<tr>
<td>Plant Engineering</td>
<td>50.00</td>
</tr>
<tr>
<td>Plastics World</td>
<td>40.00</td>
</tr>
<tr>
<td>Playthings</td>
<td></td>
</tr>
<tr>
<td>Product Marketing</td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>35.00</td>
</tr>
<tr>
<td>Production Engineering</td>
<td>30.00</td>
</tr>
<tr>
<td>Professional Builder</td>
<td>35.00</td>
</tr>
<tr>
<td>The Professional Report</td>
<td>42.00</td>
</tr>
<tr>
<td>Progressive Architecture</td>
<td>28.00</td>
</tr>
<tr>
<td>Progressive Grocer</td>
<td>39.00</td>
</tr>
<tr>
<td>Public Administration</td>
<td></td>
</tr>
<tr>
<td>Public Personnel Management</td>
<td>25.00</td>
</tr>
<tr>
<td>Public Relations Quarterly</td>
<td>20.00</td>
</tr>
<tr>
<td>Public Relations Review</td>
<td>31.00</td>
</tr>
<tr>
<td>Puget Sound Business Journal</td>
<td></td>
</tr>
<tr>
<td>Pulp and Paper</td>
<td>30.00</td>
</tr>
<tr>
<td>Purchasing</td>
<td></td>
</tr>
<tr>
<td>Quarterly Journal of Business &amp; Economics</td>
<td>5.00</td>
</tr>
<tr>
<td>Quarterly Review of Marketing</td>
<td></td>
</tr>
<tr>
<td>Quick Frozen Foods International</td>
<td>14.00</td>
</tr>
<tr>
<td>Railway Age</td>
<td>25.00</td>
</tr>
<tr>
<td>Publication</td>
<td>Price</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Real Estate Appraiser &amp; Analyst</td>
<td>$25.00</td>
</tr>
<tr>
<td>Records Management Quarterly</td>
<td>30.00</td>
</tr>
<tr>
<td>Regardis's Magazine</td>
<td>35.00</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>36.00</td>
</tr>
<tr>
<td>Restaurant &amp; Hotel Design</td>
<td>18.00</td>
</tr>
<tr>
<td>Restaurant Business Magazine</td>
<td>54.00</td>
</tr>
<tr>
<td>Restaurant Hospitality</td>
<td>40.00</td>
</tr>
<tr>
<td>Restaurants &amp; Institutions</td>
<td>18.00</td>
</tr>
<tr>
<td>Review of Black Political Economy</td>
<td>18.00</td>
</tr>
<tr>
<td>Review of Business</td>
<td>10.00</td>
</tr>
<tr>
<td>Review of Business &amp; Economic Research</td>
<td></td>
</tr>
<tr>
<td>Review of Taxation of Individuals</td>
<td></td>
</tr>
<tr>
<td>Risk Management</td>
<td>36.00</td>
</tr>
<tr>
<td>Rocky Mountain Business Journal</td>
<td></td>
</tr>
<tr>
<td>Rubber World</td>
<td>23.00</td>
</tr>
<tr>
<td>RV Business</td>
<td></td>
</tr>
<tr>
<td>San Antonio Executive</td>
<td></td>
</tr>
<tr>
<td>San Diego Business Journal</td>
<td></td>
</tr>
<tr>
<td>San Francisco Business Journal</td>
<td></td>
</tr>
<tr>
<td>Saskatchewan Business</td>
<td></td>
</tr>
<tr>
<td>Savings Bank Journal</td>
<td></td>
</tr>
<tr>
<td>School Product News</td>
<td>40.00</td>
</tr>
<tr>
<td>Seattle Business Journal</td>
<td></td>
</tr>
<tr>
<td>Securities Regulation Law Journal</td>
<td></td>
</tr>
<tr>
<td>Security Management</td>
<td></td>
</tr>
<tr>
<td>Site Selection Handbook</td>
<td></td>
</tr>
<tr>
<td>Skiing Trade Monthly News</td>
<td></td>
</tr>
<tr>
<td>Skiing Trade News</td>
<td></td>
</tr>
<tr>
<td>Soap-Cosmetics-Chemical Specialties</td>
<td></td>
</tr>
<tr>
<td>Social Security Bulletin</td>
<td></td>
</tr>
<tr>
<td>South Carolina Business Journal</td>
<td></td>
</tr>
<tr>
<td>South Carolina Business Magazine</td>
<td></td>
</tr>
<tr>
<td>South Dakota Business Review</td>
<td></td>
</tr>
<tr>
<td>South Florida Business Journal</td>
<td></td>
</tr>
<tr>
<td>Spokane Business Examiner</td>
<td></td>
</tr>
<tr>
<td>Sporting Goods Business</td>
<td></td>
</tr>
<tr>
<td>St. Louis Business Journal</td>
<td></td>
</tr>
<tr>
<td>The State Journal</td>
<td></td>
</tr>
<tr>
<td>Statistical Bulletin</td>
<td></td>
</tr>
<tr>
<td>Successful Farming</td>
<td>10.00</td>
</tr>
<tr>
<td>Successful Meetings</td>
<td></td>
</tr>
<tr>
<td>Supermarket Business</td>
<td>32.00</td>
</tr>
<tr>
<td>Supervision</td>
<td></td>
</tr>
<tr>
<td>Tampa Bay Business Journal</td>
<td>24.00</td>
</tr>
<tr>
<td>Tax Adviser</td>
<td></td>
</tr>
<tr>
<td>Tax Executive</td>
<td>27.00</td>
</tr>
<tr>
<td>Technology Review</td>
<td></td>
</tr>
<tr>
<td>Telecommunications</td>
<td>36.00</td>
</tr>
<tr>
<td>Magazine/Media</td>
<td>Price</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Television Digest</td>
<td>$720.00</td>
</tr>
<tr>
<td>Television-Radio Age</td>
<td>50.00</td>
</tr>
<tr>
<td>Texas Business</td>
<td>16.00</td>
</tr>
<tr>
<td>Thrust: Journal for Employment &amp; Training</td>
<td>17.00</td>
</tr>
<tr>
<td>Tidewater Virginian Magazine</td>
<td></td>
</tr>
<tr>
<td>Traffic Management</td>
<td>45.00</td>
</tr>
<tr>
<td>Travel Weekly</td>
<td>20.00</td>
</tr>
<tr>
<td>Tulsa Business Chronicle</td>
<td></td>
</tr>
<tr>
<td>Uniform Commercial Code Law Journal</td>
<td></td>
</tr>
<tr>
<td>United States Banker</td>
<td>24.00</td>
</tr>
<tr>
<td>United States Tobacco &amp; Candy Journal</td>
<td></td>
</tr>
<tr>
<td>Valuation</td>
<td></td>
</tr>
<tr>
<td>Vermont Business</td>
<td></td>
</tr>
<tr>
<td>Washington Business Journal</td>
<td>26.00</td>
</tr>
<tr>
<td>West Texas Business Journal</td>
<td></td>
</tr>
<tr>
<td>Westchester Business Journal</td>
<td></td>
</tr>
<tr>
<td>Western Massachusetts Business Journal</td>
<td></td>
</tr>
<tr>
<td>World Mining Equipment</td>
<td>46.00</td>
</tr>
</tbody>
</table>
Appendix B

Cardinal Stritch College
Questionnaire on InfoTrac

As part of your literature review an InfoTrac search was done for you. Will you please help us evaluate the effectiveness of the InfoTrac database by answering a few questions about it? Please return the completed questionnaire before April 1, 1988 in the enclosed stamped, self addressed envelope. Thank you.

1. Was the InfoTrac search helpful?  ____YES  ____NO

2. Did you find the InfoTrac search easy to use?  ____YES  ____NO

3. Did you use any of the citations?  ____YES  ____NO

4. Approximately how many citations did you use?
   ____NONE  ____1-5  ____6-10  ____11-15  ____16-20
   ____20-25  ____30+

5. Approximately what percent of the citations on your InfoTrac search were of help to you in researching your topic?
   ____less than 10%  ____more than 50%
   ____between 10-25%  ____do not recall
   ____between 25-50%

6. Did you request copies of any of these items from Cardinal Stritch Library?  ____YES  ____NO
   If NO, why not?

7. Did the InfoTrac search give you sufficient coverage of your subject area?  ____YES  ____NO

8. Was it necessary for you to use other sources than InfoTrac to get information on your topic?  ____YES  ____NO

9. What other sources did you use?

10. Did you find the highlighting of items by the Cardinal Stritch librarian helpful?  ____YES  ____NO

USE BACK SIDE FOR ADDITIONAL COMMENTS
Library Information and Materials Access Within and For the Georgia College Service Area

Jeremy W. Sayles
Georgia College

The ideas and methodology presented here were influenced partially by the commentary I heard before, between, and after the sessions at the second Off-Campus Library Services Conference in Knoxville, Tennessee. Many of the conventioneers' institutions had little or no funding for off-campus library support; the librarians asked one another what they could do with what was already available in the areas of personnel, materials, and services. They desired practical solutions to the problem—a how-to-do-it approach to library service. I have heard this sentiment at other conferences, regardless of the topic: a need for practical applications over theoretical possibilities.

This paper offers a practical solution in response to the informational needs of Georgia College students who are enrolled in external degree programs. In the absence of funding for off-campus library services, the most and best Georgia College can offer lies in two areas of assistance. The first area comprises services from the Ina Dillard Russell Library on the Georgia College campus in Milledgeville, Georgia; the second involves information and guidance about potential sources of assistance from libraries outside the main G.C. campus.

Library support beyond the main campus features the identification and utilization of library systems throughout the greater Georgia College service area. These various kinds of libraries have always been around to serve the users who live and work in these institutions' service areas. We are suggesting that Georgia College students attempt to complement their studies with the materials and services of their own area libraries, if possible, since many are taking courses from the faculty of and obtaining credit from a college whose main campus might be one hundred miles from their homes, and whose off-campus instructional sites are up to fifty miles from the main G.C. campus.

The college's service area was defined and analyzed. The Georgia College service area is based upon the locations of the main campus and all the off-campus program sites, and a potential student population's proximity to these sites. A faculty researcher who conducted a marketing survey for only the college's
main campus defined its service area as those counties and portions thereof within a fifty mile radius from Milledgeville. Accordingly, if we consider the four off-campus sites (Dublin, Forsyth, Macon, and Robins Air Force Base) as extensions of the main campus, and apply this definition to them, the result is a larger area of five overlapping circles, each of which represents a service area defined by a fifty mile radius from each site.


The U.S. Census publication illustrates the counties which fall within the college's services area. It lists also the state's cities--along with the counties in which they appear, and the counties--along with the cities within their borders. This city and county information was used in conjunction with the other two publications to ascertain, for example, which regional public library systems and their branches, as well as other types of libraries, are contained within or service the market area. Those appropriate institutions constitute, therefore, a level of service for the students who reside in their proximity.

The greater G.C. service area encompasses the central portion of Georgia, extending fairly close to its western and eastern borders, an area about the size of a square with 137-mile sides--about one third of the state's space. The area includes 56 counties or portions thereof in which 84 major cities have libraries or access to library services.

There are 105 libraries which provide services for the service area. Five regional county system headquarters libraries are located outside the service area, but they serve branches within the area. The 100 libraries within the service area include 83 public libraries (13 regional and county system headquarters plus 70 branch libraries), 9 University System of Georgia libraries, and 8 government and private libraries. There is some type of library for every area the size of a square with 13-mile sides. Every county except one maintains at least one library. The combined holdings of the libraries equals about 6,325,000 book and media volumes.

The literature on library services for off-campus students, representing the United States, Canada, and Australia, reveals all
kinds of possibilities for the provision of services. The services run the gamut—from maximum funding and utilization of the home base college or university's staff, resources, and services, plus the cooperation with and utilization of other libraries within the service area, but distant from the main campus—to minimal or no funding, and whatever services can be extended or exported from those already in place at the home campus.

Many of the readings reflect the complementary responsibilities of home campus support and the support of educational institutions distant from this base but close to the faculty and students who require the services. Public libraries are emphasized as logical, potential providers of services and materials.

Barbara Emmer, (1987) claims that as early as 1931 the American Library Association saw the need for colleges and universities to notify public libraries about their information needs. Luebbert (1984) writes that librarians should be familiar with all the resources in local areas and seek access to nonaffiliated libraries when necessary. Crocker (1984) says a network of institutions should be made available to students. Rearden and Lasky (1980) emphasize the importance of alternative means of locating materials; students appreciated the availability of materials from both a main campus and their local public libraries. Mount and Turple (1980) also state the importance of the use of all available resources, including the public library as an external support system. The ultimate goal would be a campus library's collaboration with these established public service facilities. Orton and Wiseman (1977) cite the use of both regional and branch library systems. Soules (1978) calls the involvement of the public library the common denominator of academic library service; college and university staff should work with them.

Edwin Beckerman (1975) states that all public libraries to some degree support the learning programs of the community, what he calls a "community curriculum" (p. 36). This function is the natural role of the public library; its support of a curriculum comes properly from the needs of society, not from its own choices about service. Roger Morris (1973) echoes this theme by saying that institutions serve better in response to people's needs than as initiators of service. And Vivian Hewitt (1976) says that nontraditional study should emphasize the students' needs more than those of an institution.

Vivian Hewitt (1976) writes also about the public libraries'
roles as community learning centers, but she feels these roles have been more passive than active. Accordingly, there is plenty of commentary from the authors cited about what public libraries are doing or should be doing for off-campus students. Their commentary is summarized thus: Public libraries should buy textbooks and college-level study materials, collaborate with college libraries, provide interlibrary loan services, donate study space for college students and materials, offer publicity for off-campus students, provide classroom space, be a depository for college-owned books and periodicals, maintain service contracts with colleges, house the catalogs of appropriate colleges' library holdings, be aware of the academic programs in their areas, give orientation lectures about their services to college students, and establish a branch library at the off-campus site—as one library did.

Another ideal of service is a symbiotic relationship between the main academic library and the off-campus sites. Mount and Turple (1980) write that the sites should lean upon the established services of on-campus facilities, with brochures which outline the services of the main library distributed to off-campus students, instructors, and site officials. Forrest (1984), Allen (1982), and Emmer (1987) state also the importance of ensuring that students and faculty are made aware of the range of services provided by the home library—through good public relations.

Hewitt (1976) writes that all types of libraries have gained importance in their service to external degree students: "Since librarians themselves are an educational resource, trained to know all the educational possibilities, where to go first, and next, they become, in many communities—whether public, school, college, or special libraries—a network of referral and exchange information" (p. 16).

Students need to understand that there can be a lot of cooperation between and among many kinds of libraries. They may not realize that their very small city branch public library is only one service unit in an enormous network of libraries. Students may not be aware that a library which houses only a few thousand books has ultimate access also to tens of millions of volumes. Branches can borrow from their regional system libraries, system libraries can borrow from one another, and interlibrary loan services can search within the state, or the greater U.S. region in which it is located, or beyond that throughout the country. And academic libraries have the same capabilities of access.

The readings illustrate the ideal, but Georgia College is
confronted with the reality of minimal monetary support. Therefore, we need to select and emphasize those items from the readings and the six major sections of the Guidelines for Extended Campus Library Services (1982) that are appropriate and feasible. These include the role of the main campus library as "responsible for identifying, developing, and providing resources and services" (p. 87), including a special emphasis on describing the services available also in the greater service community where students can go for additional help. We are able also to "assess the needs" (p. 87) of the off-campus sites and respond accordingly; a staff member is assigned to that task. We have "off-site library office[s]" (p. 87) or secretaries at each of the external degree program sites, through whom calls for service can be made to the main campus via the GIST line, a special state telephone system. Finally, we can provide the guidelines' services, although from a distance; this is why we are also recommending alternative types of libraries.

Our roles, therefore, are educational, instructional, and consultative. They feature the promotion of our home-site library services and the identification of services beyond the campus.

The Ina Dillard Russell Library at Georgia College, in Milledgeville, Georgia, is the principal information center for main-campus and off-campus students. They may contact the library for assistance in two areas: the services offered within or from this main library, and for information about the services offered by other institutions situated throughout the G. C. service area.

The information that is offered regarding both areas is detailed in two guides: Library Services for Georgia College Off-Campus Students and Faculty and Library Services Within the Georgia College Service Area.

The purpose of the first is to inform the faculty and students about the services of the Russell Library, especially those in each group who have never been to the main campus—students who live too far from Milledgeville, and faculty in our employ who reside in or near the off-campus site cities. We are expecting that off-campus faculty and students will request help regarding any aspect of information service in support of the off-campus courses. The services listed in the brochure comprise the most help we feel the library can offer, since almost any assistance given would be at the expense of service there.

We have one professional librarian who serves as the Coordinator of Off-Campus Library Services, yet this assignment
Reserve Materials

Instructors may request that Russell Library materials be placed on "Reserve" at the off-campus sites. The materials will be processed, delivered to the off-campus site, and returned to the Main Library upon completion of the quarter. Contact Jeremy Sayles for more information.

Library Instruction

Instruction is available at the off-campus sites or main campus. Contact the Instruction Librarian to schedule class sessions in course-related library materials and services.

Computer Search Services

DIALOG Information Retrieval Service is available from the Russell Library. Graduate students are allowed two free searches per quarter; faculty searches are free and unlimited. Contact Jeremy Sayles.

Library Guides

Subject guides and bibliographies for specific subject fields or courses are available upon request. Contact the Coordinator of Information Services.

Access to Other Libraries

The Library Borrower's Identification Card for the University System of Georgia is issued by the Russell Library to Georgia College faculty and students. It entitles the person to borrow materials from the 33 University System libraries. The card may be obtained at the Russell Library. Instructors who desire Borrower's Cards for students may submit to the Library class rosters, along with social security numbers with complete addresses. Upon receipt of this list, a card will be issued to each student. Student cards are valid for one quarter; faculty cards are good for one academic year. Contact the Library Director's office.

Ina Dillard Russell Library
Georgia College
Milledgeville, GA 31061
Hours

Monday - Thursday  8 AM - 10 PM
Friday            8 AM -  5 PM
Saturday         1 PM -  5 PM
Sunday           2 PM - 10 PM

GEORGIA COLLEGE

A Senior Unit of the University System of Georgia

We have reminded the external degree faculty via a memo about the services we offer in addition to those listed in the brochure:

1. Collection Development - We can help locate and recommend sources that will strengthen library collections in appropriate subject areas.

2. Collection Evaluation - We can evaluate a collection by reviewing library titles against published lists of recommended titles in the appropriate subject areas. This process includes our recommendation for discard, the purchase of a later edition, or new titles that might be acquired. The Coordinator has performed this service primarily at the Robins Air Force Base Library.

3. Interlibrary Loan Service - If students cannot find the library materials they need at the off-campus sites, the site librarian should be able to obtain them via their interlibrary loan service. This may include borrowing materials from the Russell Library. Otherwise, this library can initiate a request for materials from other libraries; the materials will be mailed here; we will forward them to the off-campus sites if requested.

The University System's Dublin Center now has its own small library facility and a part-time librarian. In addition to the services outlined above, the Russell Library is forwarding its cataloging information from the OCLC database, Books in Print citations via DIALOG, samples of forms, procedures, and policies we use, previous editions of information sources that still have reference value, back issues of journals that we have subsequently received on microfilm, and library guides/handouts. Therefore, the Russell Library does perform a consulting role regarding services, materials, and procedures—again, the most we can do without appropriate funding.
The second guide is a directory of potential services that are available throughout the greater Georgia College service area. The purpose is to make students and faculty aware of service contact points that are closer to their homes and not always associated with the main campus academic library.

Library Services Within the Georgia College Service Area is a directory which lists those institutions which comprise potential service opportunities for our off-campus students. It includes public, private, and Georgia's University System institutions within the service area.

There are three parts. Part 1, Georgia College Service Area Counties and Their Cities That Provide Library Services, is accessed by county. The cities therein that provide library services are listed. Part 2, Georgia College Service Area Cities That Provide Library Services, comprises the access by cities. (Note that every incorporated area in Georgia is called a city.) Entries include the library names, addresses, and telephone numbers. The "GIST" number included with the University System libraries is the state of Georgia telecommunication network line. The numbers which follow most city names designate the regional or county public library system areas in which these branches are located. The list includes thirteen cities in the G.C. service area in which regional libraries are located. Part 3, Regional and County Public Library Systems That Serve the Georgia College Service Area, lists the system headquarters libraries by regional number. These are the largest, most comprehensive public libraries within the service area—those with the most service potential for students.

Christine Crocker (1984) states three factors upon which access to the range of services for external students is dependent:

1. Appropriate funding by the home institution.

2. The course descriptions and teaching styles adopted by the academic staff.

3. The quality of service provided by the main library.
As we have seen, in the absence of factor 1, Georgia College can emphasize only factor 3—with an understanding of factor 2.
Library Services Within the Georgia College Service Area

Part 1: Georgia College Service Area Counties and Their Cities

That Provide Library Services

Baldwin--Milledgeville
Bibb--Macon
Bleckley--Cochran
Butts--Jackson
Candler--Netter
Clayton--Forest Park, Jonesboro, Morrow, Riverdale
Coweta--Senoia
Crawford--Roberta
Crisp--Cordele
DeKalb--Lithonia
Dodge--Eastman
Dooly--Byromville, Unadilla, Vienna
Emanuel--Swainsboro
Fayette--Fayetteville, Peachtree City, Tyrone
Fulton--Hapeville
Glascock--Gibson, Mitchell
Greene--Greensboro
Hancock--Sparta
Henry--Hampton, Locust Grove, McDonough, Stockbridge
Houston--Centerville, Perry, Warner Robins
Jasper--Monticello
Jefferson--Louisville, Wadley, Wrens
Johnson--Wrightsville
Jones--Gray
Lamar--Barnesville
Laurens--Dublin
McDuffie--Thomson
Macon--Ideal, Marshallville, Montezuma, Oglethorpe
Meriwether--Greenville, Manchester
Monroe--Culloden, Forsyth
Montgomery--Mount Vernon, Vidalia
Morgan--Madison
Newton--Covington
Peach--Byron, Fort Valley
Pike--Zebulon
Pulaski--Hawkinsville
Putnam--Eatonton
Rockdale--Conyers
Schley--Ellaville
Spalding--Griffin
Sumter--Americus
Talbot--Manchester, Talbotton
Taliaferro--Crawfordville
Taylor--Butler, Reynolds
Telfair--McRae
Toombs--Lyons, Vidalia
Treutlen--Soperton
Twiggs--Jeffersonville
Upson--Thomaston
Walton--Social Circle
Warren--Warrenton
Washington--Sandersville, Tennille
Wheeler--Alamo
Wilcox--Abbeville
Wilkes--Washington
Wilkinson--Gordon, Irwinton, McIntyre
Part 2: Georgia College Service Area Cities That Provide Library Services

(The numbers refer to the regional or county public library systems to which the cities belong; refer to Part 3 for the systems' addresses. "GIST" refers to the Georgia state telecommunication network line.)

Abbeville--(#30)--Wilcox County Library, Abbeville, GA 31001, (912)467-2075.

Alamo--(#26)--Wheeler County Library, Alamo, GA 30411, (912)568-3231.

Americus--Region #33 Headquarters.


Barnesville--(#21)--Barnesville-Lamar Library, Thomaston St., Barnesville, GA 30204, (404)358-3270.

Barnesville--Gordon College Library, 103 College Drive, Barnesville, GA 30204, (404) 385-1700, GIST:258-4270.

Butler--(#24)--Butler Public Library, P.O. Box 508, Butler, GA 31006, (912)862-5428.

Byromville--(#33)--Byromville Public Library, Byromville, GA 31007.

Byron--(#32)--Byron Public Library, Byron, GA 31008, (912)956-2200.

Centerville--(#31)--Centerville Branch Library, City Hall Bldg., Centerville, GA 31028, (912)953-4500.

Cochran--(#30)--Cochran-Bleckley Public Library, Second St., Cochran, GA 31014, (912)934-2904.

Cochran--Middle Georgia College, Roberts Memorial Library, Cochran, GA 31014, (912)934-6221, GIST:325-3274.

Conyers--(#18)--Nancy Guinn Rockdale County Library, 969 Pine St., Conyers, GA 30207, (404)483-7756.

Cordele--(#33)--Cordele Carnegie Library, 115 East 11th Ave.,
Cordele, GA 31015, (912)273-2464.

Covington--(#18)--Newton County-Porter Memorial Library, 174 Monticello St., Covington, GA 30209, (404)786-3936.

Crawfordville--(#20)--Taliaferro County Library, Crawfordville, GA 30631, (404)456-2531.

Culloden--(#21)--Culoden-Busbee Library, P.O. Box 38, Culloden, GA 31016, (912)885-2249.

Dublin--Region #26 Headquarters.


Dublin--(#26)--Katherine W. Gray Library, Washington St., Dublin, GA 31021, (912)272-0524.

Dublin--Veterans Administration, Carl Vinson Medical Center, Veterans Administration Medical Center, Dublin, GA 31021, (912)272-1210.

Eastman--Region #30 Headquarters.

Eatonton--(#19)--Eatonton-Putnam County Public Library, Eatonton, GA 31024, (404)485-6768.

Ellaville--(#33)--Schley County Public Library, Ellaville, GA 31806, (912)937-2004.


Forest Park--(#22)--Forest Park Branch, 696 Main Street, Forest Park, GA 30090, (404)366-0850.

Forsyth--(#21)--Monroe County Library, West Main Street, Forsyth, GA 31029, (912)994-6444.

Fort Valley--Region #32 Headquarters.


Gibson--(#28)--served by the regional library.
Gordon--(#25)--Gordon Public Library, College Street, Gordon, GA 31031, (912) 628-5352.

Gray--(#25)--Jones County Public Library, 315 West Clinton St., Gray, GA 31032, (912) 986-6626.

Greensboro--(#20)--Greene County Library, 610 So. Main St., Greensboro, GA 30642, (404) 453-7276.

Greenville--(#24)--Greenville Public Library, P.O. Box 729, Greenville, GA 30222, (404) 672-4004.

Griffin--Region #21 Headquarters.

Hampton--(#21)--Fortson Public Library, Route 1, Old Griffith Rd., Hampton, GA 30228, (404) 946-3558.

Hapeville--(#17)--Hapeville Branch Library, 525 King Arnold St., Hapeville, GA 30354, (404) 761-5217.


Ideal--(#25)--Ideal Public Library, Ideal, GA 31068, (912) 949-2720.

Irwinton--(#21)--Irwinton Public Library, Irwinton, GA 31042, (912) 946-2778.

Jackson--(#21)--Hawkes Public Library, 431 College St., Jackson, GA 30233, (404) 775-7524.

Jeffersonville--(#25)--Twiggs County Public Library, Ash St., Jeffersonville, GA 31044, (912) 945-3814.

Jonesboro--Region #22 Headquarters.

Lithonia--(#18)--Lithonia Library, 6890 Lucelen Ave., Lithonia, GA 30058, (404) 482-8302.


Louisville--Region #27 Headquarters.

Lyons--(#35)--Lyons Public Library, Lyons, GA 30436, (912) 526-6511.
McDonough---(#21)---George C. Alexander Public Library, 99 Sims St., McDonough, GA 30253, (404)957-5656.

McIntyre---(#25)---McIntyre Public Library, Pine Circle, McIntyre, GA 31054, (912)946-7207.

Macon---Region #25 Headquarters.

Macon---Macon College Library, College Station Dr., Macon, GA 31297, (912)474-2700, GIST:323-2700.

Macon---Mercer University, Stetson Memorial Library, 1330 Edgewood Ave., Macon, GA 31207, (912)744-2960.

Macon---(#25)---Riverside Library, Riverside Shopping Center, Macon, GA 31204, (912)744-0870.

Macon---(#25)---Rocky Creek Library, South Gate Shopping Center, Macon, GA 31206, (912)744-0880.

Macon---(#25)---Shurling Library, Shurling Shopping Center, Macon, GA 31201, (912)744-0875.


McRae---(#30)---Telfair County Library, 506 College St., McRae, GA 31055, (912)868-2978.

Madison---Region #19 Headquarters.

Manchester---Region #24 Headquarters.

Marshallville---(#25)---Marshallville Public Library, Main St., Marshallville, GA 31063, (912)967-2413.

Metter---(#36)---Candler County Library, Metter, GA 30439, (912)685-2455.

Milledgeville---Central State Hospital, Medical Mental Health & Resident's Libraries, Milledgeville, GA 31062, (912)453-4153.

Milledgeville---Georgia College, Ina Dillard Russell Library, Milledgeville, GA 31061, (912)453-4047, or 5573; GIST:324-4047, or 5573.

Milledgeville---Georgia Military College, Sibley-Cone Memorial
Library, 201 East Greene St., Milledgeville, GA 31061, (912) 453-3481.

Milledgeville--(#25)--Mary Vinson Memorial Library, 151 South Jefferson St., Milledgeville, GA 31061, (912) 452-2021, or 453-9001.

Mitchell--(#28)--Served by the regional library.

Montezuma--(#25)--Montezuma Carnegie Public Library, 101 No. Dooly St., Montezuma, GA 31063, (912) 472-6095.

Monticello--(#19)--Jasper County Library, Monticello, GA 31064, (404) 468-6966.


Mount Vernon--Brewton-Parker College, H. Taylor Parker Library, Mount Vernon, GA 30445, (912) 583-2241.

Mount Vernon--(#35)--Montgomery County Public Library, Mount Vernon, GA 30445, (912) 583-2780.

Oglethorpe--(#25)--Oglethorpe Public Library, Chatham St., Oglethorpe, GA 31068, (912) 472-7339.

Peachtree City--(#21)--Peachtree City Library, Hwy. 54, Peachtree City, GA 30269, (404) 487-8557.

Perry--Region #31 Headquarters.

Reynolds--(#24)--Reynolds Public Library, P.O. Box 467, Reynolds, GA 31076, (912) 847-3468.

Riverdale--(#22)--Riverdale Public Library, 6701 Hwy. 85, Riverdale, GA 30274, (404) 997-7777.

Roberta--(#25)--Crawford County Library, Rte. 1, Roberta, GA 31066, (912) 836-4478.
Robins Air Force Base--Base Library (Ninth St. & Robins Parkway), 2853 ABG/SSL, Robins Air Force Base, GA 31098, (912)926-5378, or 5411.

Sandersville Public Library--(an independent library), 131 West Haynes St., Sandersville, GA 31082, (912)552-6324.

Senoia--(#23)--East Coweta Public Library, Senoia, GA 30276, (404)599-3537.


Soperton--(#26)--Treutlen County Library, Soperton, GA 30457, (912)529-6683.

Sparta--(#19)--Hancock County Library, Sparta, GA 31087, (404)444-5389.

Stockbridge--(#21)--Cochran Public Library, Hwy. 42, Stockbridge, GA 30281, (404)474-2831.

Swainsboro--Emanuel County College Library, Swainsboro, GA (912)237-7831; GIST:333-7831.

Swainsboro--(#36)--Franklin Memorial Library, Swainsboro, GA 30401, (912)237-7791.

Talbotton--(#24)--Talbotton Public Library, P.O. Box 477, Talbotton, GA 31727, (404)665-3134.

Tennille--(#26)--Washington County Library, Tennille, GA 31089, (912)854-7466.

Thomaston--(#24)--Hightower Memorial Library, P.O. Box 631, Thomaston, GA 30286, (404)847-8649.

Thomson--(#20)--Thomson-McDuffie County Library, 149 Main St., Thomson, GA 30824, (404)595-1341.

Tyrone--(#21)--Tyrone Public Library, P.O. Box 100, Tyrone, GA 30290, (404)487-4038.

Unadilla--(#33)--Elizabeth Harris Library, P.O. Box 939, Unadilla, GA 31091, (912)627-9303.

Vidalia--Region #35 Headquarters.
Vienna--(#33)--Dooley County Public Library, Vienna, GA 31092, (912)268-4687.

Wadley--(#27)--Bedingfield-Prichard Library, Wadley, GA 30477, (912)252-1366.


Warrenton--(#28)--Warren County Library, 220 Main St., Warrenton, GA 30828, (404)465-2656.

Washington--Region #20 Headquarters.


Zebulon--(#21)--Pike County Library, Gwyn St., Zebulon, GA 30295, (404)567-3904.
Part 3: Regional and County Public Library Systems That Serve the Georgia College Service Area

#17 ATLANTA--Atlanta-Fulton Public Library, 1 Margaret Mitchell Square, N.W., Atlanta, GA 30303, (404) 688-4636.

#18 DECATUR--Stone Mountain Regional Library, 3560 Kensington Rd., Decatur, GA 30022, (404) 294-6641.

#19 MADISON--Uncle Remus Regional Library, 1131 East Avenue, Madison, GA 30650, (404) 342-1206.

#20 WASHINGTON--Bartram Trail Regional Library, Mary Willis Library, 204 East Liberty St., Box 430, Washington, GA 30673, (404) 678-7736.

#21 GRIFFIN--Flint River Regional Library, Griffin-Spalding County Library, 800 Memorial Drive, Griffin, GA 30223, (404) 227-2756.

#22 JONESBORO--Clayton County Library System, 124 Smith St., Jonesboro, GA 30236, (404) 478-7120.

#23 LA GRANGE--Trout-Harris-Coweta Regional Library, La Grange Memorial Library, 500 Broome St., La Grange, GA 30240, (404) 882-7784.

#24 MANCHESTER--Pine Mountain Regional Library, 218 Perry St., N.W., Manchester, GA 31816, (404) 846-2186.

#25 MACON--Middle Georgia Regional Library, Washington Memorial Library, 1180 Washington Ave., P.O. Box 6334, Macon, GA 31201, (912) 774-0800.

#26 DUBLIN--Oconee Regional Library, Laurens County Library, 801 Bellevue Ave., Dublin, GA 31021, (912) 272-5710.

#27 LOUISVILLE--Jefferson County Library, 306 West Broad St., Louisville, GA 30434, (912) 625-3751.

#28 AUGUSTA--Augusta Regional Library, Augusta-Richmond County Public Library, 902 Green St., Augusta, GA 30901, (404) 724-1871.

#30 EASTMAN--Omulgee Regional Library, Dodge County Library, 505 Second Ave., P.O. Box 606, Eastman, GA 31023, (912) 374-4711.
#31 PERRY--Houston County Public Library System, Perry Branch Library, 1201 Washington Ave., Perry, GA 31069, (912) 987-3050.

#32 Fort Valley--Peach Public Libraries, Thomas Public Library, 323 Persons St., Fort Valley, GA 31030, (912) 825-8540.

#33 AMERICUS--Lake Blackshear Regional Library, 307 East Lamar St., Americus, GA 31709, (912) 924-8091.

#35 VIDALIA--Ohopee Regional Library, Vidalia-Toombs County Library, 606 Jackson St., Vidalia, GA 30474, (912) 537-9284.

#36 STATESBORO--Statesboro Regional Library, Main St. South & Grady, Statesboro, GA 30458, (912) 764-7573.
References


years. (ERIC Document Reproduction Service No. ED 176 730).


The What, Why and How of Collaborative Learning:

And its Importance for the Off-Campus Student

Jean Sheridan

University of Rhode Island

College of Continuing Education

A professor walks into a classroom of forty students and hands out a worksheet. The students automatically form themselves into groups and begin to talk about the questions on the sheet. After awhile the professor joins one group, and then another, mostly listening, sometimes clarifying misunderstandings. As the students continue to work, one might read aloud from material which is attached to the worksheet, or the group may read silently from this material. Their discussions will culminate in the last half of the class in oral or written presentations. After the class the professor prepares new worksheets, edits and revises the previously used ones, and compiles more accompanying materials.

What

The hypothetical class which has been described above is being taught according to a method known as collaborative learning, a pedagogical style which emphasizes cooperative efforts among students, faculty, and administrators. It is rooted in the belief that knowledge is inherently social in nature and stresses common inquiry in learning (Whipple, 1986). Essentially different from traditional education, it involves students from the beginning in the development of the learning experience. They learn with, instead of from, the faculty, and they share knowledge and information with one another. "In consequence," says Karen Romer whose work at Brown University is attracting wide interest, "students begin to experience knowledge as something that is created rather than as something simply passed from teacher to student" (Romer, 1988, p. 4).

Proponents of collaborative learning closely follow the published work of Kenneth Bruffee, a teacher of writing at Brooklyn College. He contends that educational institutions must change the ways in which they teach if they are to reflect the society they purport to serve. "The rest of the world now works collaboratively almost as a universal principle," says Bruffee (1987, p.44). Education should, therefore, teach collaboratively.
With sound philosophical roots in Dewey, (1938), collaboration has long been the basis of the student/faculty relationship in graduate education. There are also parallel traditions in adult education where it is called andragogy (Sheridan, 1986) and in social psychology which emphasizes interpersonal skills and small group participation (Todd, 1981).

In the collaborative process, the teacher's influence is indirect and resembles the behavior of a facilitator, mediator, or organizer rather than that of a traditional pedagogue. The teacher enters wholeheartedly into the process of mutual inquiry, and relates to the students as an "informed peer."

This may suggest reduced effort, but, in reality, it adds to the teaching responsibility. Teachers must establish and communicate very clear objectives, utilize proper techniques, prepare content materials, configure the groups, and then--most importantly--resist the urge to interfere with them. They are also responsible for creating a learning environment conducive to collaboration, one which encourages mutual respect, discourages hostile competition, and is non-threatening and democratic.

Students may find it difficult at first to understand what is expected of them, conditioned as they have been to hierarchical classroom procedures. No longer will they be allowed to sit passively, pencils poised over lecture notes. Now they must assume responsibility for their own learning, that of their classmates, and, yes, even of their teachers. The transition for both teacher and student may at times be slow, but the rewards will be worth the effort.

Why

As Bruffee has said, the collaborative classroom resembles more closely than the traditional classroom the ways in which individuals interact in modern society. Beyond that, are there other reasons why collaborative learning should be adopted for classroom instruction and in libraries for bibliographic instruction?

Whipple (1986) lists five areas in which benefits are felt. Students, he says, develop new cognitive skills, an ability to view scholarly activity more broadly, a more democratic mode of thinking, greater tolerance for diversity, and revitalization in areas beyond the classroom. Students become active doers rather than passive receivers. The space between teacher and student, traditionally filled with a mixture of awe and hostility, is shortened, and the relationship becomes mutually respectful, even
friendly. Students learn to support one another and to feel responsible for contributing to one another's knowledge funds.

A 1988 survey of the faculty engaged in collaborative learning at the University of Rhode Island corroborated these statements (Sheridan, in press). An instructor in English remarked that his students seemed to be getting a broader understanding of what defined a discipline. They also learned to tolerate situations for which more than one solution could be supported. Another found that the traditional barriers between teacher and student were broken down. He was pleased when students joined him on his walks across campus and frequently dropped by his office to chat. An economics professor observed that students seemed to be enjoying his classes more and were demanding similar experiences in other classes.

Slavin (1983) believes that the most beneficial effect on students is demonstrated in terms of self-esteem. He claims that they make friends among their classmates more easily, feel better about their work, and actually do achieve more than in the traditional classroom. Collaborative learning, he says, is an antidote to the failure, boredom, and alienation found in so many classrooms. Other studies suggest that the intellectual skills of critical and mutual inquiry encouraged in the collaborative process facilitate content recall (Welds, 1986).

Today librarians as well as classroom teachers are being challenged to defend the effectiveness of their teaching techniques. They are accused of irrelevancy, of insensitivity to the needs of students, and of loyalty to outmoded methods. Even worse, they are being ignored.

Critics claim that librarians maintain rigid educational environments and construct learning experiences that are too highly structured. Some even suggest that typical bibliographic instruction sessions are "nothing more than hour long oral bibliographies" and should be abandoned (Love, 1987, p. 481). "One shot" sessions in research strategy may even do a disservice to the student by making the process seem easier than it actually is.

Like classroom teachers, librarians may depend on the lecture too much. It is the lecturer, after all, not the student, who learns the most (Katz, 1985). Lecturers reinforce skills every day. They write, speak, organize, and solve problems. Students, on the other hand, rarely have a chance to practice these skills at all (Kraft, 1985). As a result, they do not feel involved with the teaching/learning process and may even carry
this attitude with them into the larger worlds of campus and community. Change is clearly called for.

Collaboration in education can transform education in several ways: it has the capacity to move students and faculty members beyond the boundaries of traditional disciplines; it locates learning in a social context; it enlarges our concept of learning. Students gain a sense of confidence in their own powers, and, in moving from a passive to an active role in their own education, learn a way of working with others that is transferable to other spheres of life. For faculty members (librarians) collaboration with students also has benefits: the perspective of students can open up new insights into both teaching and research, and thereby rekindle faculty enthusiasm and creativity. The benefits to institutions include the enhancement of teaching, curricular renewal, and institutional revitalization (Romer, 1988, p. 4).

How

The literature on collaborative learning until recently has been highly theoretical. Now, however, ideas for practical applications are being developed through efforts of Collaboration in Undergraduate Education (CUE), an Action Community of the American Association of Higher Education. One recent survey of faculty at the University of Rhode Island gives examples from specific classroom experiences (Sheridan, in press). Another paper being prepared for publication by the author gives suggestions for bibliographic instruction (Sheridan, in preparation).

Most classroom applications involve small group work. Other collaborative learning techniques include the use of learning contracts, cooperative syllabus development, and interactive lecturing. With some imagination, these applications, especially the interactive lecture and small group activity, can be reframed for use in bibliographic instruction classes.

Small group work is central to most collaborative learning. The groups can be organized in a variety of ways. They can be formed as topical discussions or labs, around special interests, to solve problems, to evaluate or consult, as skill-practice, debate, and role-play, etc. They can be configured as triads, learning/teaching teams, or pairs. However they are formed, they should be set up to facilitate genuine interaction so that all participants will learn, teach, share, coach, and plan. Regardless of their size or character, once the process is set in
motion, the teacher must relinquish the leadership role.

Before introducing collaborative learning in any form, however, certain conditions must be present. First of all, an atmosphere congenial to group work must be created. It should be informal, friendly, and non-competitive. The librarian should sit with the students if possible or otherwise arrange the room so that groups can form comfortably. If using an easel or blackboard for brainstorming, a student rather than the librarian should do the recording. A lecture should never exceed ten minutes in length. Careful preparation of materials is, of course, prerequisite, and collaboration with faculty should be encouraged.

Lindblad (1987), a professor in the Honors Program at Frederick Community College in Maryland, sets certain standards for her collaboratively taught classes. First, she creates an interactive, tension-free learning environment. Her students always sit in circles, herself included, or in a horseshoe when doing brainstorming. Second, each member of the class must develop skills required for collaborative inquiry. These include task and maintenance roles—facilitating, analyzing, synthesizing, harmonizing, expediting, information gathering, etc. Third, the class members as well as the teacher regularly evaluate their own and their classmates performance levels as well as their commonly developed goals.

Some suggestions for collaboratively framed bibliographic instruction classes follow.

- A basic library orientation is enlivened by the following approach. The librarian distributes a newspaper article on a current "hot topic." The class is divided up into small groups and instructed to brainstorm on persons, agencies, or things, either named or implied in the story, which could be tapped for further information. After they present their findings, which are recorded on newsprint or a blackboard, the class selects one of them to "interview." The librarian role-plays the part while the students query him. He concludes the session by suggesting certain library materials which could add to the information derived from primary sources (LaBaugh, 1987).

- Sophomores who must write a long research paper meet with the librarian to discuss their projects. Using an easel and newsprint, they brainstorm on one subject from the perspectives of sociology, political science, religion, history, psychology, etc., and assemble a long list of keywords. Then, with some suggestions from the librarian regarding the use of indexes and the card catalog, they are divided into groups and asked to search out some
materials. After twenty minutes they regroup and share what they have found.

- A group of upper-level business students is assigned to do company and industry analysis. The librarian meets with them to discuss their projects. She hands out a list of business reference materials which are coded for company or industry data. The class is divided into groups to search the materials. After ten or fifteen minutes they report on their findings.

- Reentering adults, remedial students, or foreign students are frequently timid about using libraries. This collaborative technique works well for them. After a brief general review of the services the library offers, they are introduced to the Library of Congress Classification System. Then they are paired up and asked to roam freely in the stacks, their "assignment" simply to look for something which appeals to them. The teams are directed only to select either a circulating book, a reference book, or a periodical. When they return to the general session, they describe what they have found to the class. The librarian takes this opportunity to build on their findings while praising their contributions. Often the librarian, open to learning from the students, will discover something new.

These examples have several elements in common. There is group/social inquiry, reflecting a style prevalent in most successful work and home environments today. It is carried out under friendly and democratic conditions. The teacher has retreated during most of the action but is open to learning during the reporting process. Because all contributions have been received in a spirit of genuine respect, the students' sense of self-esteem is enhanced, and they are encouraged to do more independent library research. These characteristics of collaborative learning should recommend it to librarians serving off-campus students.
The Off-Campus Student

Problems created by distance force off-campus students to work under conditions which may isolate them from faculty and fellow students. Many must use extra-campus information resources such as public or community college libraries, and, frequently, non-library individuals or agencies. Lack of connection to faculty, other students, and library resource personnel can lead to feelings of separation and low self-confidence. Therefore, more than any other population of students served by colleges and universities today, the off-campus student needs to learn independent information-gathering skills.

Creative implementation of collaborative techniques can help them overcome these impediments, achieve full intellectual (and enhanced personal) development, and establish genuine and permanent relationships with the people who can facilitate their lifelong learning—librarians.

Consider the following three scenarios.

- The off-campus student population is taught in locations distant from the campus library. The liaison librarian responsible for the delivery of materials and bibliographic instruction develops a series of instruction sheets and skill exercises which can be worked on in teams or small groups. The results of the exercises are shared with a local librarian whose cooperation/collaboration has been elicited by the campus liaison librarian.

- Off-campus librarian and on-campus professor confer regarding a subject-specific assignment. In collaboration with one another, they compose a packet of resource materials and worksheets. These are distributed to groups of four to five students whose findings are shared in the off-campus classroom with the professor acting as facilitator.

- The librarian, either through closed circuit interactive television or in an on-campus setting, meets personally with the students. Small group work, brainstorming, faculty/librarian/student collaborative assignments are developed; students report back in a general interactive session.

The three scenarios—students working with local librarians off-campus, students working with professors off-campus and on-campus librarians, students working in the presence of an on-campus librarian—repeat themselves over and over in distance learning situations. Distance, in many instances, has made
bibliographic instruction a desirable but often neglected goal for the busy librarian. Service to the off-campus student has been defined only in terms of the delivery of faculty-determined materials, thereby discouraging creative information-gathering. Students so trained often fail to develop the ability to gather information independently.

Collaborative learning can change this situation and revitalize the relationships among distance learners, the information they need, and the librarians who, together with them, seek it out. The benefits, both short-term and long-term, will have positive, far-reaching effects not only on the academic level but also beyond the campus in the social, professional, and political lives of all who participate.
References


Establishing an Off-Campus Library Service for Remote Educational Centers: Variables and Potentials

Alexander L. Slade
University of Victoria

Introduction

As off-campus education continues to grow in prominence and popularity, off-campus library services are toddling along behind, attempting to "catch the wave." Much progress has been made in the catch-up game in the 1980's, with more conferences, workshops, and professional literature being devoted to this area of library services. With the realization that off-campus education will continue to expand in the future, librarians and administrators are actively seeking information and ideas on how library support can be effectively implemented for students studying at a distance from the main campus. External sources such as regional accrediting bodies and state licensure agencies are emphasizing quality in this type of education and are requiring institutions to provide adequate library resources and services as one means of enhancing this quality (Kascus & Aguilar, 1988). These factors indicate there is a need for practical guidelines to assist in establishing and implementing library support for off-campus programs. The objective of this paper is to provide some guidelines and suggestions for colleges and universities faced with the prospect of developing an off-campus library service for students at remote centers which are not served by a branch library.

In off-campus education, there are two distinct categories of courses based on the delivery or instructional mode. One category has been labelled 'distance education.' The distinctive feature of distance education is that students and instructors rarely, if ever, meet in a face-to-face classroom setting. Courses taught by distance education generally employ one or more of the following delivery methods: educational television, media-print packages (commonly known as "correspondence" packages), non-broadcast video-cassettes, audio-tapes, computer-assisted instruction, group teleconferencing, and individual tutorials by telephone. Students usually study independently at home and have little or no contact with other students taking the same course. Most significantly, the students are generally dispersed over a large geographical area and have inconsistent local access to library resources. The
considerations in providing library support for distance education courses have been discussed in another paper (Slade, 1987a) and will not be repeated here.

The other category of courses offered under the broad heading of off-campus education does not have a distinctive label like 'distance education.' It is basically the traditional delivery mode involving face-to-face classroom instruction. For the purposes of this paper, the category will be called 'off-campus classroom courses.' As opposed to distance education courses, off-campus classroom courses have a physical location where students meet with an instructor on a regular basis. This location can be a school or community center in another town, or a regional center or extension campus of the parent institution. Regional centers tend to be used where there are enough students and courses in a particular geographical area to warrant a separate facility, but not enough to warrant a separate campus. Where a college or university contracts to offer educational programs to the staff of an external organization like the military or a private corporation, the regional center may be located on the organization's property. As an example, several American colleges have established regional centers on military bases. Regardless of the students' affiliation, there are common challenges and variables to be considered in providing library support to a regional teaching center which does not have its own academic library.

For most academic institutions, it is not economically feasible to establish a separate library to serve the courses taught at a regional center. These types of centers tend to be small and cramped, with most of the space used for classrooms or offices. There is usually not a resident student population. The students tend to be adults who are working most of the time and take classes in the late afternoons, evenings, and on weekends. It is quite common for a college or university to establish a regional center, offer courses, and then consider library resources as an afterthought. The afterthought is frequently inspired by an accrediting body.

CONDITIONS FOR DEVELOPING A LIBRARY SERVICE

If an institution chooses not to develop a branch library at a regional center, how can effective library support be developed for the center's students to demonstrate that the quality of their educational experience is reasonably comparable to that of students at the main campus? The sections which follow identify a number of variables and methodologies which can help answer this question.
The focus of this paper is upon the "how" of developing off-campus library services for remote educational centers, not upon the "why". However, for the "how" to take place, certain prerequisite conditions must exist. Firstly, the administration of the parent institution must be convinced of the need for library support at its regional centers. Secondly, the parent institution must be prepared to assume full responsibility for ensuring that the library needs of its off-campus students are met. It will only delegate this responsibility under certain controlled conditions which will be discussed later. Thirdly, the institution must be prepared to provide the necessary financial support to ensure that an adequate level of library service is attained for the regional centers. These conditions are reflected in the "ACRL Guidelines for Extended Library Services" (Assoc. for, 1982). Ideally, these conditions should be a part of a long-term plan for the institution's off-campus program which includes a vision of optimum library support.

Once these basic conditions exist, the next step is to either assign responsibility for off-campus library services to a campus librarian or to employ a new librarian to fill this role. Another option is to hire a library consultant experienced in off-campus services. Since there are still relatively few librarians with background in this area, a consultant can assist in the planning stage to develop a model of service, paving the way for a general librarian to take over once the service has been initiated. Whatever approach is used, one individual needs to be responsible for developing the service.

Other authors have addressed the issue of the planning process for off-campus library services (Walker & Maxwell, 1983; Bishop & Clinton, 1986), covering the identification of the goals and objectives of the instructional program. This process is important, especially when a proposal needs to be presented to the administration to convince them of the need for an off-campus library service. For the purposes of this paper, we will assume that the campus administration is convinced that a system of library support needs to be developed for the institution's regional centers and has given the librarian permission to develop a plan of action.

VARIABLES IN PROVIDING LIBRARY SUPPORT

Needs assessment is a vital element of the planning process for regional centers. The librarian responsible for off-campus services should arrange to visit each center in person to discover the variable which will influence the level of the library support
required for each site. A basic rule in this process is that each center will have its own unique characteristics and those variables need to be incorporated into any master plan. The following is a discussion of the variables to be considered at each regional center.

Funding

Depending on an institution's commitment to service, the development of library support for a regional center can be quite expensive. This is especially true if adequate support systems such as local libraries and communication technology do not already exist in the area. Ideally, the librarian should have an idea of what to expect in terms of financial support before visiting the regional centers. That way, the librarian will be in a better position to conduct the needs assessment from a realistic point of view and can avoid exploring areas for which there is definitely no money available. The following questions represent information which is vital to the planning process:

- Is the campus administration willing to establish a separate budget for library support to the regional centers or will each regional center have its own library budget?
- Will each center be guaranteed an equitable level of support or will each center director determine the amount to be allocated for library resources?
- Will funding for computer equipment come out of the library budget or can those expenses be assigned to another account?
- If appropriate, is the administration willing to pay contractual fees to other libraries?
- Is funding available to establish an outreach service from the campus library to serve the regional centers?
- Will there be money to develop collections especially for the regional centers? Can extra staff be employed to manage those collections?

There are many questions which could be posed in this context. The librarian first needs to determine the basic level of support required for each center. Then several levels of enhancement can be proposed up to a level of maximum support for each center. For example, once students have access to essential resources on site, other resources such as facilities for computerized literature searching could be added at a later date as money permits. The final decision about funding, of course, will depend on the librarian's post-assessment proposal to the administration and the effectiveness of the arguments for certain levels of library support.
Current Support

An important variable to be considered in the needs assessment process is the current support systems for regional centers. Typical questions are:
- Are there toll-free telephones available to provide a link with the main campus?
- Is there a delivery service which regularly transports material from the main campus to the centers and from center to center?
- Does the campus library currently supply any resources to the regional centers?
- Are there bibliographic resources such as microfiche catalogs, serials lists, superseded periodical indexes and directories which could easily be sent to the centers?
- Do classes from the centers ever come to campus for field trips or special lectures?

The main issue here is for the librarian to determine whether any existing conditions or services can be utilized to facilitate the development of library support.

Characteristics of the Student Population

In gathering data about the variables pertaining to a regional center, the librarian needs answers to a number of questions about the student population. Typical questions which can be asked are:
- Where do the students live in relation to the regional center? Are they concentrated in one location or dispersed over a large area?
- How often do the students attend classes at the center?
- How mobile are they? Is it realistic to assume that the students can drive 30-40 miles to visit another library?

The answers to these questions are important for library access. For example, if the students are dispersed geographically and commute to the center once or twice a week, it may not be practical to place many library resources at the center. On the other hand, if the majority of students live near the center, as is the case at most military bases, it may be practical to provide some materials on site, space permitting.

Characteristics of the Regional Center

The characteristics of the regional center will determine the extent to which library support can be provided on site. Space, staff, and policies of a host institution, such as the military, are important variables to consider in this
investigation. For both civilian and military regional centers, the following information should be obtained:
- Is there sufficient physical space to house collections of library material at the center?
- Can existing staff at the center provide security for library material and equipment?
- Can library material and equipment be made available in the evenings and on weekends when the students are most likely to want it?

In the case of regional centers on military bases, some base libraries may be willing and able to house academic materials to support courses taught on site. Webster University is one example of an institution which has worked out this arrangement with base libraries (Luebbert, 1984). In other cases, a base library may be too small or understaffed to take on additional resources. The policy of base personnel can influence this situation as well. Even if adequate space exists, the officer in charge may feel that base libraries are for recreational reading only and refuse to handle academic resources. At civilian regional centers, staff is often a difficulty from the point of view of access to library materials. If material is on loan from the campus library, some measure of security is necessary to ensure that items don't go missing. Rarely is there adequate staff to look after library materials in the evenings and weekends when students are most likely to want access to those resources.

**Curriculum and Faculty**

To gather data about the courses, programs, and faculty at a regional center, a number of questions need to be asked. Examples of typical questions are:
- Which academic disciplines are covered by the programs at the center?
- Are there Masters or Doctoral programs?
- How long does the average course run?
- Which courses are likely to require library resources?
- Do the students have adequate time to locate and obtain library material for their assignments?
- Are there established course reading lists?
- Are the faculty part-time local people or do some regular faculty from the main campus travel to the center to teach courses?

In this area of needs assessment, it is important for the librarian to identify those courses and programs which are likely to need library resources. In discussions with the faculty, the librarian should learn what types of assignments are currently
given and whether the faculty would change those assignments if enhanced library support were available. Basically the librarian needs to determine which faculty members would be willing to motivate their students to use library resources. In some cases, faculty may not think of all the benefits of enhanced library support and may need some educating on this regard. Finally, the librarian should determine the level of support which is required for different programs. Would a collection of books be sufficient or will the students need access to periodical literature? If periodical articles are necessary, which indexing and abstracting sources would be appropriate for the level of the program?

Proximity of Other Libraries

If relevant collections or reference resources exist at libraries close to the regional center, and if access can be arranged, the need for additional library support from the main campus can be minimized. The librarian needs to visit each major library near the center and acquire the following information:

- How many and what types of libraries are there within a thirty mile radius of the center?
- Do these libraries have collections or reference resources relevant to the courses taught at the regional center?
- What is their policy on serving students from other institutions?
- Are any of the libraries with relevant collections willing to consider contractual arrangements?
- Would any of the libraries be willing to house material especially acquired for the center's students?
- Would they consider receiving material for their collections in return for service to the center's students?
- Are the hours of opening convenient for students from the regional center?

As mentioned earlier, often there is insufficient space and staff at a regional center to house much library material. Therefore, it is necessary to look to local libraries to see how much they are willing and able to help. For each regional center, the librarian needs an answer to this basic question: Are contractual or cooperative arrangements with other libraries in the area a realistic option for fulfilling the library needs of the center's students and faculty?

Availability of Technology

Computer technology and electronic communication systems can be very effective means of providing library support to a regional center. It is important to determine what existing equipment can
be utilized for library purposes and how much additional hardware would need to be acquired for such uses as online catalogs, online literature searching, CD-ROM systems, and communication with the main campus. Typical questions to ask in this context are:

- What types of electronic equipment are currently available at the regional center?
- Are there personal computers and how many?
- Is there a personal computer which could be dedicated to library use or would a separate machine have to be purchased?
- Do any of the computers have modems?
- Is there presently any computer communication link with the main campus (e.g. electronic mail)?
- Is there a FAX machine at the center?
- If the main campus has an online catalog, can it be accessed from the regional center? What additional equipment and support would be necessary to establish this link?

The information gathered in this process will influence the feasibility of introducing computer and communications systems into the off-campus library service.

**METHODOLOGY FOR LIBRARY SUPPORT**

Once all of the above data has been gathered, the librarian will be in a position to prepare a proposal for providing library support to the regional centers. The following discussion outlines the major areas of off-campus library services which should be considered in developing such a proposal and in implementing a support system.

**Core Collections**

A core collection is a selection of books and, occasionally, articles designated as useful supplementary readings for a course. This type of collection is very similar to a collection placed in the reserve reading room on campus. Often these collections are based on established reading lists which form part of the course syllabi. The provision of core collections is probably the most common way in which library support is offered to off-campus classroom courses (Slade, 1987b). Since the core collection service is an extension of the on-campus reserve function, an institution is fulfilling a basic level of responsibility to its off-campus students by making reserve material accessible at regional centers.

The first step in developing this basic level of library support is to identify courses at the regional centers which require core collections. The second step is to determine the
minimum number of books which can be acquired for each core
collection. A general guideline such as one book for every
student in the class could be used in this context. However,
since enrollments vary, a more realistic approach may be a number
based on the average enrollment. The third step is to have
faculty select the actual books for each course. The established
reading lists should be used as a guide in this process. The
fourth step is to order the books selected. The books may be
ordered either by the campus library or by each regional center
depending on administrative decisions.

The purpose of a core collection is to provide a consistent
set of relevant sources to complement the textbook and to provide
more in-depth coverage of specialized topics. While under certain
conditions it is possible to borrow core collections from the main
library, it is generally advisable to acquire 'tailor-made' collections for the exclusive use of the regional centers. This
way students are guaranteed a basic level of library support for
each course. The primary exception is when a course is offered on
an irregular basis and the relevant support materials can be
spared as a set from the main library.

The location of core collections depends on a number of
variables:
- The space and staff at the regional center;
- The willingness of local libraries to house material for the
center;
- How frequently the course is offered;
- Whether the same course is offered at a different time at
another regional center;
- Whether there is a central location which could organize the
storage and distribution of core collections.

The following categories discuss the options for handling
core collections:

| Condition: | The course is unique to one center and offered frequently. |
| Recommendations: | If space and staff permit, house at the center; If space and staff at the center do not permit, investigate storing at a local library; If local libraries cannot help, store on-campus or at a central location and send for it when required. |

| Condition: | The course is unique to a center and offered infrequently; or The course is offered at two |
or more regional centers at different times.

Recommendation: Store at a centralized location and have staff send the collection automatically to the center where the course is being taught at the appropriate time.

In planning core collection support, it is important that the collections be reserved for the use of the regional centers and the items in each collection be kept together in a convenient location. If material is housed in a central location or in the campus library, at least one staff member should be assigned to coordinate the distribution. Matters concerning acquisition and cataloguing will depend on financial arrangements and administrative responsibility and must be decided as part of a separate internal process.

Reference Resources

Developing library research skills is an important part of the educational process. This learning experience is often neglected in off-campus education due to lack of resources and lack of faculty encouragement. In providing library support to a regional center, some means should be available for the students to conduct literature searches, even at an elementary level. Often faculty at regional centers eliminate or simplify assignments involving library research because they feel that the students will have difficulty accessing the necessary resources.

Once the librarian has enlisted faculty support and obtained an idea of which classes would require reference material, the next step is to determine the level of reference support necessary for each subject area and the appropriate resources to provide access to the literature. For some areas, a general periodical index like the Social Sciences Index may be sufficient, especially at the undergraduate level. For other classes, especially graduate, abstracting sources like Psychological Abstracts or specialized bibliographies may be necessary. Other classes may need access to general reference tools such as encyclopedias, dictionaries, directories, and statistical publications. The basic question here is which reference works are necessary for the off-campus student to conduct his/her own literature search.

Another task will be to discover whether any relevant resources are held at nearby libraries. If these resources do exist there, can the students obtain easy access to them? Factors such as driving distance and hours of opening need to be taken
into consideration. If some appropriate reference sources like periodical indexes and abstracts are easily available at a local library, the task becomes one of education rather than acquisition.

For those subject areas which are not adequately covered by a nearby library, some purchasing will be necessary. A basic set of the relevant indexes, abstracts and reference books should be acquired for use by the center's students. New technologies are currently being developed to provide 'in-house' computerized access to indexing sources. The compact disc (CD-ROM) technology is, at present, an excellent way to introduce students to literature searching. It replaces the laborious task of scanning many volumes of printed indexes with a fast and efficient means of locating references on a topic. Since one of the goals of current education is to produce computer-literate people, automated literature searching would provide students with useful skills and computer practice as well as facilitating access to the literature. CD-ROM products have the advantage of being menu-driven and 'user-friendly'. All costs for this type of system are generally paid in advance and since there are no online or telecommunications charges, the student can work independently and print long lists of references without incurring any additional costs. A scenario which incorporates computerized literature searching into a futuristic off-campus library service is described later in this paper. If budget permits, the librarian should consider recommending the purchase of the relevant indexes and abstracts on CD-ROM rather than in paper format. While the initial cost may be greater, the automated version is more versatile and has the potential of providing the student with a more meaningful educational experience. For many undergraduate programs, a set of the Social Sciences Index, the Humanities Index, and the Business Periodicals Index on compact disc would provide quite adequate access to the literature. The Readers' Guide to Periodical Literature would also be a useful acquisition to provide students with access to articles in some of the more popular magazines. Other indexing, abstracting and reference sources could be added later as the need arises.

To accompany the indexes and abstracts on CD-ROM, a certain amount of hardware is required. That is why the librarian needs to investigate the technology variables discussed earlier in this paper. If compatible personal computers are available at the regional centers, the task of setting up a CD-ROM system becomes easier and cheaper. If the equipment does not exist at a center or if the center is not an appropriate place to house a CD-ROM system, then local libraries may be able to assist. If a nearby library already has some CD-ROM products, it may be willing be to
house other discs to serve the center’s students. A local library which does not own any CD-ROM material is likely to be interested in a reciprocal arrangement whereby the necessary hardware and discs are deposited in that library for the use of their patrons in return for services to the center’s students.

The essential issue in this context is that the librarian determines the appropriate reference resources and support systems for the center’s courses and then investigate the most appropriate location to house this material. When adequate facilities do not exist at the regional center, it is advisable to take advantage of other libraries in the area, even if it means paying fees. However, as mentioned above, many libraries are likely to be willing to exchange services for material which may assist their patrons. The bottom line, however, is that the center’s students should be able to conduct basic literature searches somewhere in the local area.

Access to Library Material

Once the students have been able to conduct a literature search, the next challenge is obtaining the references. The main campus library will need to be involved in this process. As mentioned earlier, one of the basic assumptions in off-campus library services is that “the parent institution is responsible for providing support which addresses the information needs of its extended campus program” (Assoc. for, 1982). While students can proceed to a certain degree with local or on-site sources, they will need to rely on the campus library to deliver some of the required material and to assist in the literature search process when local resources are inadequate.

In addition to the core collection service, an outreach service from the main library is a primary means of providing support to an off-campus program. The campus library should be prepared to establish a communication link with the regional centers. A traditional way of accomplishing this is to install a toll-free telephone line to the main library. Off-campus students can call the library at no charge and request materials or information. The library will send the requested items to the regional center for the students to pick up. As technology permits, other communication links could be used in addition to or in place of the telephone. Computer messaging systems and telextransmission are two examples of ways in which the students at a regional center could communicate with the campus library. The basic premise behind any library outreach service is that the off-campus students deserve equitable access to the resources of the main campus library since these students are
legitimate members of the parent institution. If the off-campus students cannot easily visit the library in person, they should be able to request that materials be delivered to them at the regional center.

An outreach service does not necessarily have to replace contractual or cooperative arrangements with other libraries. When relevant collections exist locally, students should be encouraged to search for their own material, thus acquiring a better understanding of how libraries work. It is worth establishing some sort of arrangement with a local library, even if it means paying a fee or buying material for them, to enable the students to have 'hands-on' experience with library collections. Regardless of what local support has been established, the campus library should serve as a back-up for those instances when a student cannot obtain the necessary material or information from a local source.

Specific techniques can be employed to facilitate the students' access to library materials. One way to assist students in obtaining periodical articles is to have staff compile a union list of journals indexed by the various reference tools. For example, if a regional center has the Social Sciences Index on CD-ROM or in paper format, the list of the indexed journals could be annotated as to which titles are available at local libraries and which are obtainable from the campus library. Using this list, the student could decide whether to drive to a nearby library or to phone the campus library to obtain the required article. If the journal were not held at any location, the student should have the option of requesting an interlibrary loan through the main library or through a local library if a contractual agreement has been established.

The ideal means of accessing books and monographs is through an online or microfiche catalog of the campus library holdings, available either at the regional center or at a local library. If that is not possible, it would be useful to have a union list of books from the course reading lists similar to the periodicals lists mentioned above. The catalogs of the various local libraries and regional union lists are other sources which students from a center can use to get access to monographs in conjunction with interlibrary loan procedures.

Publicity and Bibliographic Instruction

An off-campus library service is only as effective as its publicity. Students and faculty need to know what services and resources are available and how to use them. Faculty need to
support the service and encourage students to search for library materials and information. One of the jobs of the librarian is to enlist faculty cooperation. Another task is to compile a handbook or manual for students at each regional center which will cover the following areas:

1. General information on library research skills.

2. A list of local libraries with their policies and procedures and hours of operation.

3. Information on core collections.

4. Information on reference resources such as periodical indexes and abstracts which are relevant to the courses taught at the regional center. This information will include the location of these resources and instructions on how to use them.

5. Guidelines on how to search for additional books on a subject and interlibrary loan policies and procedures.

6. Information on and procedures for accessing the campus library holdings.

7. Information on any other library resources or services available to the center's students.

8. A flow chart or some similar guide to provide a step-by-step methodology for the off-campus students to follow in searching for library information and material.

In addition to the handbook, there are other methods which can be used to provide bibliographic instruction to students at a regional center. Computer-based instruction, videotapes, self-study programs, and classroom lectures are some of the more common ways in which library research skills and resources can be introduced to off-campus students (Emmer, 1987). If finances permit, it may be advisable for a librarian to be based at a regional center or in a central location near two or more centers rather than at the main campus. With an onsite library office, the librarian would be more available for consultation and to plan and conduct bibliographic instruction sessions. The ACRL Guidelines mention onsite library offices as one option under "Facilities" (Assoc. for. 1982).

Evaluation, Funding, and Implementation Priorities
In any system of off-campus library support, a mechanism is needed to monitor and evaluate the services and materials available to the students and faculty at regional centers. Due to the many variables discussed earlier, library support can take several forms depending on finances and local conditions. All of the conditions listed in this section do not have to exist for adequate library support. In proposing a new service, the librarian may wish to recommend that it be implemented in stages, with each stage or level being evaluated before going on to the next one. Another approach is to phase in services for one regional center at a time. That way, the support systems for the center could be evaluated before services are implemented for another center. Any evaluative process should focus on the effectiveness of the systems which are in place. Faculty and students should be involved in this process to determine which library needs are being met and which are not. Personal interviews with a selection of individuals from both attention or development. The scheduling for implementation will depend primarily on funds available and how much pressure there is from outside agencies such as accrediting bodies.

Following is a list of the levels or stages of off-campus library support, in priority order for implementation, with comments on budget allocations under each category. In each case, it is assumed that a librarian will be involved and that person's salary has been allocated as a separate process. Also, it is assumed that any funds required for evaluative procedures will be provided from a central source.

1. Outreach Service

If there is any question as to priorities, the development of an outreach service from the campus library should take priority over everything else. This guarantees that the home institution is assuming responsibility for its off-campus students. It can also demonstrate to an accrediting body that students at regional centers can access almost any item available in the campus library.

In budgeting for an outreach service, the institution should consider allocating amounts for these areas:
- Staff;
- Publicity and user orientation;
- Toll-free telephone line and answering machine;
- Printing and duplicating;
- Postage and shipping;
- Computer search services;
- Interlibrary loans;
- Electronic transmission of data.

2. Information Services and Contractual Arrangements

The second priority is to survey the existing local resources and prepare information for the students and faculty as to which libraries contain relevant resources and how these resources may be accessed.

Budget items may include:
- Travel;
- Fees for services at other libraries;
- Printing costs for handbooks or information packages.

3. Core Collections

Even if finances do not permit ordering a full complement of books for each course, some items should be acquired for those courses most in need of supplementary readings.

Budget items to be considered:
- Cost of books;
- Staff time for ordering and processing;
- Cataloguing costs, if appropriate;
- Staff to manage the collections;
- Fees for storage, if appropriate.

4. Reference Resources

Where appropriate reference materials are not available locally, relevant indexes, abstracts, directories, statistical sources, etc. should be acquired for use by the center's students and faculty. This is to encourage the development of library research skills.

The following items should be considered in preparing a budget:
- Cost of each reference resource, including subscriptions;
- Hardware and equipment necessary to drive CD-ROM products, if appropriate;
- Staff to prepare instructions and union lists of locations.

5. Bibliographic Instruction

To ensure that students and faculty take full advantage of the materials and services available to them, funding should be
allocated for some method of bibliographic instruction.

Budget items to be considered:
- Printed materials (handbooks, self-study programs, etc.);
- Audio-visual materials (videotapes, etc.);
- Computer developed materials (computer-assisted instruction);
- Classroom lectures (including travel expenses).

FUTURE ELECTRONIC LIBRARIES

The developments in computer and communication technology are paving the way for electronic libraries of the future. This technology can be ideal for an off-campus library service. Personal computers are becoming commonplace in the office and in the home. Electronic messaging systems are developing to the point where the off-campus student can use a computer instead of a phone to communicate with the main library. Telefacsimile machines enable documents to be sent to a regional center almost immediately. In addition, most campus libraries of the future will have an online catalog which can be accessed from remote sites. There is the potential of regional centers having enough electronic equipment and facilities to enable the off-campus student to search and obtain library resources without having to leave the premises. DePaul University's O'Hare Campus is one example cited in the literature of a center which is going in this direction (Brown, 1985).

The following scenario describes what an electronic library service of the future might look like:

A student at a regional center wishes to conduct a literature search on a topic. He goes to a personal computer set up to access the online catalog of the campus library and searches the holdings by subject and key-words. Once he has located some books on his topic, he types in his identification and location and using online commands, requests that the books be sent to him at the center. If a particular book is in use, he will see that information while searching and can request a recall of the item which will be sent later. If he wants more books beyond what he found in the campus library, he can call up a union catalog, peruse the listings by subject or key-word and request an interlibrary loan if he locates a relevant title at another library. The interlibrary loan request would probably have to be channelled through the campus library, but the item could still be delivered to him at the center.
Having satisfied his need for books on his topic, the student now wishes to search for periodical articles. There would be CD-ROM files of the major indexes and abstracts at the center. The student conducts his own search on the relevant databases (having received some prior instruction on computer searching) and prints a list of references with abstracts. He then studies the references listed and selects a number which appear useful for his topic. Having checked them off on the printout, the student adds his identification information and then goes to the FAX machine and sends a copy of the list to the campus library. The staff at the campus library locate the articles which are available in the collection and send them by FAX to the regional center for the student. The student then has the option of requesting the missing items through interlibrary loan, using the same system, if he feels any of those items are important enough.

If the student does not obtain enough relevant references using the CD-ROM files, he can go online to other databases with menu-driven systems and conduct further searches in this manner. He would have to be aware of the charges involved. The student can then submit the request for references from these searches to the campus library in the same manner as before. Or, he could download the results onto a disc and transmit the file to campus using an electronic mailbox.

If the student needs additional information, either before or after his search for books and articles, he would have other reference tools available at the center in CD-ROM format. He could search encyclopedias, directories, and statistical sources using the compact disc technology.

This scenario is now possible with sufficient funding. The basic requirements are:
- An on-line catalog of the main library's holdings;
- Terminals and equipment to access the catalog at the regional center;
- Reference resources in CD-ROM format and the appropriate hardware;
- Facilities and accounts for on-line literature searching;
- Facilities and accounts for accessing union systems like OCLC;
- A telefacsimile machine connected to a similar machine at the campus library;
- Staff to fill requests at the campus library;
- A system to deliver books to the regional center.

CONCLUSION
The development of an off-campus library service presents a challenge to just about every academic institution. Part of the challenge involves a shift in thinking about traditional library service. The off-campus student, whether located at a regional center or studying independently through distance education, is at a disadvantage since he/she cannot walk into the campus library to browse and to select material personally. Therefore, nontraditional means need to be employed to match users with library material and information. An institution must recognize that these nontraditional means of library support will be expensive and be prepared to allocate sufficient funding to ensure that an adequate standard of quality is attained for the off-campus programs.

The intent of this paper has been to offer some guidelines and suggestions for planning an off-campus library service for an institution with one or more regional centers. Because of the number of variables to be considered in planning this type of service, a librarian needs to collect a large amount of information through site visits, discussions with center faculty and librarians at local libraries, and meetings with administration. If time and money permit, it would also be useful to assess the needs and priorities of the students through personal interviews and questionnaires. All this information should be used to compile a profile of each regional center's library requirements. To meet these requirements, off-campus library services, based on methodologies such as the ones presented in this paper, can be introduced in stages as funding permits.

The most important aspect of the process of planning and implementing an off-campus library service is for the institution to have a long-term goal or ideal level of service to which it aspires. Without such an ideal goal, library support to regional centers will be disjointed and inconsistent. The most consistent criticism which can be made of off-campus library services to date is that, in the majority of cases, they are developed on an ad hoc basis in response to a specific need. This specific need is often created by pressure from a source such as faculty or an accrediting body. Off-campus library services will only move out of the toddling stage and truly "catch the wave" when they cease to be reactive responses to external pressure and become proactive choices as part of an institution's master plan to instill quality into off-campus education. When institutions can point to a vision of optimum library support for their off-campus students and to methodologies for attaining that level of support, the emphasis will shift from 'catch-up' to teamwork as library services finally fall into step with the progress of off-campus and distance education.
References


Building Bridges:

Resource Sharing at Indiana and Purdue Universities' Fort Wayne Campus

Cheryl B. Truesdell

Indiana-Purdue University at Fort Wayne

Indiana-Purdue University at Fort Wayne (IPFW) is part of a complex statewide network of branch campuses and extension programs of two premier educational institutions in Indiana, Purdue University and Indiana University. These criss-cross the state from Gary, Indiana in the north to New Albany in the south. Each campus offers to a greater or lesser degree off-campus programs, or programs which are remote from their "parent" institution, the parent institution being defined as the organization administratively, fiscally, and academically responsible for the programs or courses offered. In many ways IPFW represents a microcosm of the many off-campus programs being offered by Indiana and Purdue University institutions throughout the state.

IPFW has developed its own unique identity in the community and state while fulfilling the requirements of two large and very different university systems. Over the past 70 years IPFW has created a curious independent/dependent relationship with its parent institutions. IPFW began as two separate feeder branch campuses operating out of the same city. It now offers more than 70 degree, certificate, and transfer programs which are taught by 639 full and part-time faculty to over 10,000 students in northeastern Indiana. It has a single chancellor, a joint faculty senate, and unified fiscal management. On the other hand the sponsoring institutions, Indiana University and Purdue University, oversee the administrative and academic missions assigned to them, including accounting, student services, the library, faculty employment, student enrollment, curricula, and degrees awarded.

IPFW hosts a variety of undergraduate, graduate and professional degree programs which can be called off-campus programs. IPFW is the off-campus site for the Indiana University undergraduate program in Labor Studies and graduate program in Library and Information Science. IPFW is also an off-campus site for the professional medical degree offered by Indiana University's Medical School in Indianapolis. In turn IPFW offers its own off-campus programs. The Accelerated High School Studies
Program provides selected freshmen level undergraduate courses to qualifying students in their high schools. These high schools are located in the local and surrounding counties. The General Education Program offers general undergraduate courses and specific courses in nursing, supervision, and business. These courses are being taught in Warsaw, Indiana, a city some 50 miles from the IPFW campus.

While most departments at IPFW need be concerned only with their academic programs and how they relate to the sponsoring university, the library at IPFW must meet the diverse needs of all its over 10,000 students, 600 faculty members, and 70 resident and off-campus degree programs. It must do this without having on campus the research collections of the libraries of Indiana and Purdue Universities or the funding to build its own research collections. Through a system of administrative, fiscal, and cooperative arrangements with Indiana and Purdue Universities, the IPFW library and other libraries in the Indiana-Purdue University system are able to offer quality off-campus library services without duplicating the research collections of these two university systems.

Both Indiana University and Purdue University receive considerable sums of money from IPFW’s annual budget to pay for "services rendered" to IPFW. Some of this money pays for services provided to the library at IPFW. Administratively the library is an Indiana University mission. Because of these administrative ties to Indiana University the library receives most of its supplementary library services from Indiana University. Through centralized services at the Indiana University main campus library IPFW receives acquisitions assistance, cataloging for its monograph collection, and most importantly a variety of resource sharing services which are coordinated by Indiana University's Interlibrary Services Department.

IPFW along with seven other regional campuses and Indiana University's Professional Schools form an Indiana University resource sharing network. This Indiana library system has developed a number of services which have increased access to the resources of all the Indiana university libraries and lessened the distance of remote collections. A computer-generated microfiche card catalog provides location information to monographic holdings of all Indiana University campus and Professional School libraries. In addition Indiana University's serials list on OCLC shows library specific call numbers and holdings information. An electronic mail system, Project Electro, allows Indiana University libraries to instantly send and receive requests for materials.
This means that a student at IPFW, after searching the Indiana University COM catalog and locating a specific title, could have the item requested electronically from any one of eight regional campus libraries, four professional schools, or sixteen main campus research libraries. The student could expect to pick up that item in the IPFW library in three to five days on the average. A growing telexfacsimile network makes possible even faster document delivery of photocopied materials. A faculty member who needs an article quickly may request it through the IPFW telexfacsimile rush service. After verifying the location and call number of the journal a librarian can call Indiana University's Interlibrary Services Department and ask that the article be sent telexfacsimile. While it takes only seconds to telefax a page of text, the faculty member normally can expect the article to arrive within twenty-four hours.

The most exciting new development in this growing resource sharing network is Indiana University's Academic Computing Department's Academic Information Environment (AIE). AIE currently resides on a main frame computer in Bloomington, Indiana with dial up access available to all Gold Vax account holders. At this time all Indiana University faculty and staff receive free accounts on the Gold Vax. This fall all students will receive computing accounts as well. AIE provides access to a variety of electronic systems. Electronic mail services allow Indiana University users to talk back and forth with colleagues both in the Indiana University system and worldwide through BITNET. File services permit users to create, edit, delete, copy and print files. AIE provides access to a few on-line information sources such as Dow Jones News/Retrieval and Compuserve, and gateways to BRS, DIALOG, Wilsonline, and other on-line databases accessible through Telenet or Tymnet. This fall AIE will add a wide variety of applications software and PLATO. PLATO will allow microcomputer users to access this instructional computing system with over 10,000 hours of instructional materials in about 200 subject areas.

However, the most important component of the Academic Information Environment in terms of expanded library services is the Library Information and Reference Network (LIRN). LIRN offers access to the resources and services of Indiana University's main campus libraries. The LIRN menu at this time consists of ten options: (a) library hours, (b) library news, (c) OCLC, (d) renewals, (e) delivery services, (f) purchasing of library materials, (g) reference services, (h) scheduling library tours, (i) library suggestions, and (j) coming services, the centerpiece of which is "Information Online," Indiana University's on-line card catalog. The most important of these for off-campus sites
are the delivery services, OCLC, and reference services.

While Indiana University's regional campus libraries already provide OCLC service, interlibrary loan through electronic mail, and telefacsimile, LIRN offers these services directly to Indiana University faculty and staff from their own microcomputer workstations. Faculty members at a site remote from the main campus library can log onto the ATE from their microcomputer, search OCLC for specific book or serial titles, determine their location in the Indiana University main campus libraries, then request the located items be delivered to them through campus mail. Faculty and librarians in need of reference assistance can send a request directly to the subject and area specialist or main reference department in Bloomington and receive replies through VAX mail or through campus mail. These types of services will be expanded when Indiana University's on-line catalog becomes available.

At this time the LIRN system funnels all requests for off-campus library services to the research libraries on the main campus in Bloomington. However, the IPFW campus is negotiating the installation of the LIRN software on the local VAX. This will allow the local campus library to develop its own LIRN services geared to the needs of local users and the strengths of the local collections. For example, IPFW will load its local newspaper index, government documents shelflist, document delivery service from its own collection, library hours, library instruction scheduling, and on-line catalog when it becomes operational. With local LIRN systems interfacing with the research libraries LIRN system, off-campus users will have access to a variety of library services from their own microcomputers.

Within two years a common scenario might be that an accelerated high school student taking English composition in his high school or a continuing education student taking business classes in Warsaw could call up the LIRN system at the IPFW campus from a microcomputer workstation at his/her remote site. From a menu the high school student could choose to search the IPFW on-line catalog, locate materials, and request that the items be sent to the high school library. The Warsaw business student might search the local newspaper index for articles on the impact of the new General Motors plant on the area economy, and request photocopies of the articles be sent to an off-campus classroom site.

Although the library at IPFW receives most of its off-campus library services from Indiana University, it also receives a growing number of services from Purdue University. This paper
would not be complete without a brief discussion of the IPFW library's ties to Purdue. Purdue is the fiscal agent for IPFW. In that capacity it manages the library's endowment fund and writes the library's checks. More importantly IPFW has access to the resources of Purdue libraries through tools similar to that of the Indiana University libraries.

At this time the IPFW library uses OCLC and quarterly microfiche editions of the Purdue research libraries' serial list to locate materials in Purdue's research collection. These materials are then requested through OCLC's Interlibrary Loan Subsystem. Purdue is part of Indiana's telefacsimile network so items can be sent via campus mail or telefacsimile.

Recently Purdue University established its own electronic Technical Information Service (TIS). The service is targeted at Indiana's technical and business professionals, but is also available to Purdue faculty and institutions affiliated with Purdue. TIS provides a dial-up access to Purdue's on-line card catalogs, the Engineering Information System (EIS), document ordering through electronic mail, and information assistance from TIS specialists. The Engineering Information System (EIS) is especially useful as an unique database containing the tables of contents of over 20,000 books in Purdue's Siegesmund Engineering Library. TIS is available at no charge through a grant from the Indiana Economic Development Council. Some Purdue faculty members at IPFW have begun to use this service and the library at IPFW is adding it to its already rich and complex resource sharing network.

Electronic access to information resources is continually expanding and changing in Indiana. Indiana University and Purdue University have separately developed unique electronic information systems which are available to both on campus and off-campus users. In addition the two universities are working together to install the same on-line public access catalog. This will further increase accessibility to the library collections of both universities and their regional campuses. It is not feasible for IPFW or any of the off-campus sites of Indiana or Purdue University to build research collections, nor is it necessary. With new technologies off-campus sites can access a variety of resources from local information files to research collections. Quality off-campus library services can be achieved by building bridges with cooperation, technology, and commitment.
Measuring Library Effectiveness

Virginia Witucke
Central Michigan University

Any librarian with more than a few days on the job has a sense of what the organization is doing, for whom, and how well. These perceptions are unlikely to be precise, and are perhaps even inaccurate. The moves to accountability and to more business-like library administration have been accompanied by a concern for more systematic measurement and evaluation of a library's activities. Documentation has become a buzzword.

For at least 20 years, models, techniques, guidelines, and experiments for library assessment/determining library effectiveness have been appearing in the literature. Many measures, both those recently developed and traditional, are useful in off-campus library programs. This paper will examine some of the ways to gather program information, and describe some of the measures collected at Central Michigan University. The bibliography will provide guidance to readers desiring greater detail.

Why is it important to collect program data? Data are the raw material for decision making. When analyzed, the results can help guide policy making, collection development, the extent and types of public services offered, budget allocation, staffing and scheduling, processing systems, and marketing. Problem solving is aided by data that describe a situation as fully as possible. Statistics trace activities over the course of time, and make possible internal and external comparisons. Program reporting is enhanced by data that flesh out narrative. Certain program data are needed to report library activities within the institution, to accrediting agencies, to state licensure boards, and to other agencies.

As a frame of reference for what follows, Central Michigan's program is briefly described. CMU offers courses at over 50 centers across the country, under the aegis of the Institute for Personal and Career Development (IPCD). Most of the students are pursuing the degree of Master of Science in Administration. The Institute has an Off-Campus Library Services program consisting of reference librarians serving specific sites, and a document delivery service at the campus library. Students may request up to 15 items per week, any combination of books, copies of journal articles, government publications, and microfiche. Students are
encouraged to begin their information searches at local libraries, and are provided guidance in using these libraries.

There are various ways to conceptualize data gathering. Rodger (1984) speaks of measuring performance in terms of extensiveness (quantity), effectiveness (how well we achieve what we set out to), and efficiency (how wisely we use our resources). Zweig (1977) looks at use (numbers of transactions), users (patrons), and uses (the impact of library use). Data may be objective or subjective. This paper emphasizes data gathering methods.

At the risk of oversimplifying, there are only a few basic means for collecting program data. You can tabulate existing documentation or observe or ask people or test. Data may be collected in their entirety (e.g., sending questionnaires to all students, tabulating all reference requests received) or by sampling: studying a portion that is believed to reflect the whole (e.g., sending questionnaires to a random sample of 10 percent of the current students, tabulating reference questions received during a typical week). Some data are gathered regularly, others when needed to deal with specific issues. This paper assumes that no data are collected simply for the sake of doing so; results will be analyzed and used in decision making.

Gathering Data

Tabulate Existing Documentation

This simply means taking the "paper trail" (which may actually be in a computer's memory) to determine the current status of a phenomenon; more sophisticated statistical treatment may follow. The most common example is circulation data; all circulation systems provide a record of each transaction, and librarians routinely count these transactions, usually reporting them in subcategories as well as totals. At Central Michigan, when a student calls the campus to request a document, information is entered onto a computerized database. The first screen contains patron data, including social security number and center where student is enrolled. A second screen indicates final action, and branches to screens for citations of books or periodicals to be requested. Figure 1 shows the data that are collected.
Figure 1. Document request forms.

PERIODICAL REQUEST
INSTITUTE FOR PERSONAL AND CAREER DEVELOPMENT/LIBRARY PROGRAM
CENTRAL MICHIGAN UNIVERSITY

Name of Periodical ____________________________________________
Vol. ___________ No. ___________ Pages ___________ Month ___________ Year ___________
Title of Article ____________________________________________

Author of Article ____________________________________________
Name ____________________________________________
S.S. # ____________________________________________
Address ____________________________________________

Work Phone ( ) - ____________________________
Home Phone ( ) - ____________________________
Date ____________________________

ACTION
☐ Not Enough Data ☐ Year Not Owned ☐ Sent
☐ Incorrect Data ☐ Volume Missing ☐ Too Long
☐ Periodical Not Owned ☐ In Bindery ☐ Edition Not Owned
☐ Pages Missing ☐ In Library Date ____________________________
☐ Issue Missing

Initials ____________________________

BOOK REQUEST
INSTITUTE FOR PERSONAL AND CAREER DEVELOPMENT LIBRARY PROGRAM
CENTRAL MICHIGAN UNIVERSITY

Author ____________________________________________
Title ____________________________________________
Publisher ____________________________________________
Not Needed After ____________________________ date
Year ____________________________________________
Name ____________________________________________
S.S. # ____________________________________________
Address ____________________________________________

Work Phone ( ) - ____________________________
Home Phone ( ) - ____________________________
Date ____________________________

☐ Hold card filled out ☐ Search card filled out

ACTION
Call Number ☐ Title Not Owned ☐ Edition Not Owned
☐ Title Checked-Out ☐ Cannot Circulate
☐ Title Sent Date ____________________________
☐ Title Sent
☐ Title Missing
Many of the data are routinely reported, but even more information could be gathered from these forms. The results would be useful in such areas as determining and scheduling staffing needs; justifying need for staff; developing administrative measures such as unit costs, staff output, and standards of service; identifying imbalances in program usage by centers and user groups, particularly underuse; spotting possible problems; improving marketing; pinpointing acquisition needs; and assessing program effectiveness. With the advent in 1988 of the computerized request system, accurate data can be gathered easily, and more complex ways of calling up data become practical.

Table 1 shows statistics that can be derived from this form. Some additional potential uses of data are listed in the right hand column.

<table>
<thead>
<tr>
<th>DATA</th>
<th>RESULTS/USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>---Number of requests</td>
<td>Workload</td>
</tr>
<tr>
<td>---Types of materials requested</td>
<td>Work output measures</td>
</tr>
<tr>
<td>Recency of materials requested</td>
<td>Collection Development</td>
</tr>
<tr>
<td>---Number of requests filled</td>
<td>Bibliographic instruction</td>
</tr>
<tr>
<td>---Number of requests unfilled</td>
<td>Collection development</td>
</tr>
<tr>
<td>---Reasons for non-fulfillment</td>
<td>Bibliographic instruction</td>
</tr>
<tr>
<td>---Specific items unfilled, including multiple requests for given items</td>
<td>Patron satisfaction</td>
</tr>
<tr>
<td>---Number of days to students' deadlines</td>
<td>Program effectiveness</td>
</tr>
<tr>
<td>---Number of days turn-around between receiving and completing request</td>
<td>Patron dissatisfaction</td>
</tr>
<tr>
<td>---Number of days before or after not-needed-after date request is completed</td>
<td>Program effectiveness</td>
</tr>
<tr>
<td>---Call numbers receiving heavy use</td>
<td>Corrective measures</td>
</tr>
<tr>
<td></td>
<td>Collection development</td>
</tr>
</tbody>
</table>
---Specific journals and books receiving heavy use
---Number of requests by day of week, week of month, month
---Number of requests per center
---Number of requests per individual
---Number of requests by status (student, faculty, staff)
---Number of requests by course

---Number of requests by instructor
---Number of requests received divided by number fulfilled

---Number of requests per center divided by number of active students per center
---Number of requests divided by number of patrons
---Number of individuals making requests divided by total number of students

Collection development
Staff scheduling
Relative use by center
Marketing
Relative use by population
Marketing
Marketing
Bibliographic instruction
Collection development
Marketing
Bibliographic instruction
Fill rate

Imbalance in use
Per capita usage by patrons
Use of service by population

Monthly, cumulated monthly, cumulated quarterly, and annual reports are generated from the request slips. Requests received are reported by region and center, with total numbers of books and journal articles sent, fill rate, and reasons for non-fulfillment. Number of pages copied (paper and microform) is reported, as is the number of WATS line calls received. Data are also kept on the number of evening and weekend requests for document delivery. Logs of database searches are kept by each librarian, noting date, vendor, database, length, cost, user's region and status (faculty or student). These tabulations could also be reported in terms of user status, center, and databases searched. Analysis of search topics could indicate needs for collection development—and possibly for staff continuing education.

Reference librarians write up requests for assistance. On campus, the document request slip is also used for reference questions. At the northern Virginia office, where the author is headquartered, a form has been devised that provides spaces for patron data, request, response, and dates received and completed. These are used in reporting reference usage by region. However, a
more intensive analysis could show usage by center, turn-around time, types of requests, repeated usage, and types of responses. For example, what percentage of requests result in a referral to local libraries? an on-line search? copying of index pages? ready reference assistance? directional/procedural information? referral to campus? Unfilled or inadequately filled requests bear analysis, as do the topics received. Repetitive questions may call for preparation of bibliographies or study guides, or influence the content of bibliographic instruction.

An analysis of responses to requests for September 1988 quantified patterns of which we formerly only had impressions (see Figure 2). The most common response to a patron request is to outline a search strategy, and refer the patron to local libraries which have the needed materials. For example, a student interested in job satisfaction would be referred to that topic in *Business Periodicals Index*, and told of one or more nearby libraries that subscribed to *BPI*. Analysis of actual responses showed that this happened about 40% of the time. Topics requiring online searches were requested almost one fifth of the time. About 10% each of the requests resulted in copies of materials being sent from the office (e.g., citations under a given topic from *Hospital Literature Index*, tables from *Statistical Abstracts of the United States*), file materials being provided (e.g., bibliographies, study guides, local library guides), and ready reference questions being answered on the spot (e.g., names and addresses of professional associations, correct form for citing materials). A few questions had to be referred to campus, while others required an explanation of how our service work.
To see how complex the librarians' responses to requests were, the number of different kinds of responses was computed. Sixty-one percent resulted in only one kind of response. A third of the patrons received two kinds of responses, and only seven percent were given three. All of these results bear analysis in terms of what they tell us about the appropriateness and thoroughness of our responses.

A tabulation of days of the week in which reference requests came into the Atlantic Regional Office verified the author's observation that Monday is the busiest day, with 32 percent of the requests, falling steadily off to 12 percent on Fridays (see Figure 3). However, the suspicion that the first week of the month (when most regional classes begin) would be appreciably busier that the others was not born out; the first half of the month did prove to be somewhat busier than the second. These data are helpful in scheduling clerical time, vacations, and site visits.
Figure 3. Requests received by days of week.

1987-1988

It has been suggested that course numbers and even faculty names be collected consistently. Knowing that certain courses and instructors evoke heavy library use suggests possibilities for targeting assistance, such as preparing more thorough course research guides or more specialized bibliographies. Difficulties and misunderstandings may be dealt with when it becomes clear that problems surface regularly with certain courses or faculty. Underuse of library services is even more important to pinpoint.

At Central Michigan University, librarians try to get to sites at least once a year, to visit classes, get acquainted with local program representatives, and visit libraries. Measures reported are numbers of classes and students contacted. Since a major justification of travel time and expense is to market the program, student use of Off-Campus Library Services should be examined, comparing the period before the visit with that following. While other factors than marketing affect library usage, some suggestion of program impact may result.

Printed materials are prepared and distributed by the Off-Campus Library Services staff, designed to market the program and to help faculty and students make more efficient use of libraries. While the ultimate measure is the impact on users of these materials, the number and types of handouts prepared and distributed can be tracked, and costs determined. One measure of effect can be gained by studying the circulation of materials appearing on bibliographies distributed. How many requests were received for an item before it was put on the bibliography,
compared to after? How do requests compare to those for similar items that are not on the lists? Do bibliographies generate so much demand that items are rarely accessible, thus frustrating patrons? Are books on bibliographies more likely to be requested than journal articles, or vice versa?

Comparing a library to published standards, such as those of an accrediting institution or professional association, is an accepted method of assessing library programs. The Guidelines for Extended Campus Library Services (Association, 1982) are qualitative. To see how an off-campus program stacks up against this statement requires an analysis of documentation of program planning, finances, personnel, facilities, resources, and services. Since there are no quantitative standards, current data from a survey of off-campus library services would provide a basis for comparison of program elements, including such specific data as hours of availability, per capita usage, fulfillment rate, and per capita expenditures.

Fulfillment rate and lists of unfilled requests are measures of collection adequacy used at Central Michigan. Many other measures discussed in the literature (Bonn, 1972; Magrill, 1985) can be utilized in off-campus programs. The most useful seem to be those that focus on subjects related to off-campus curricula, e.g., shelf list analyses and circulation activity of specific call numbers.

Citation analysis has been used to collect data on collection adequacy. A paper presented at this conference reports on a check of bibliographies from selected theses done at National College of Education against the library's holdings. For Central Michigan, this would entail checking bibliographies from sample final integrative papers against our holdings: what percentage of these sources could we provide? More complex analyses of citations could reveal types of materials used, number of citations per paper, frequency with which specific materials are cited, and recency of citations. Citations for analysis may be chosen from published literature, e.g., prestigious journals in a field.

All the measures so far have been of library activity. However, library staff should also be looking outward at patrons. The Institute for Personal and Career Development has a halftime evaluator, who looks at such things as student characteristics, instructor characteristics, and syllabi. Many of these data have implications for library programs, for example, the types of assignments given by faculty. Whether or not an institution has a program evaluator, there is likely to be existing data on
students, faculty, and the instructional program, available for library staff analysis.

Observe

This is somewhat similar to the above approach to measurement in that it relies on studying what is already there, in this case by looking directly at a situation. Use of staff time can be periodically examined by means of self-kept logs. In one variation of this, 15 minute signals trigger the recording of current activity. Sampling over a period of time can indicate inappropriate and out-of-balance allocations of time.

Procedures such as those in Performance Measures for Public Libraries (DeProspo, 1973) can be adapted to document delivery staff activities, to determine how many staff members are actually available to respond to telephone calls from patrons, and to monitor availability of terminals and photocopy machines. Simple tabulations showing when calls are received can indicate busy and quiet times of day, days of the week, and even monthly or seasonal patterns of usage, useful in staff scheduling. One vital statistic is the number of times patrons need to be put on hold or called back, because of limited staff on duty.

Self-observation of a librarian's interactions with patrons is possible through audio and video recordings. The feedback may be a revelation. Potential threat can be minimized by limiting the number of those who review the recordings, and by using the results only for self-improvement. Overt or unobtrusive observation by a second person is also a possibility.

It is not feasible to observe off-campus students' use of library facilities and resources. Asking students to keep logs of their information gathering strategies has not proven effective. An analysis of student term paper bibliographies may provide insight into student approaches to searching, especially when combined with dialogues with students.

Specific time and motion studies, although beyond the scope of this paper, are other ways to observe current activity with an eye to improving it, particularly within the document delivery operation.

Ask

Interviews (in-person or telephone) and questionnaires are standard ways to gather program information. Up to this point, objective measures have been discussed. Patron feedback often
emphasizes the subjective—what people think of us and what improvements they suggest. Valid measures of patron satisfaction are hard to come by: adequate survey instruments are difficult to design, those who choose to respond may not be a representative sample, and most patrons lack the expertise to evaluate quality library service accurately. The recent interest in developing objective measures (DeProspo, Altman, Beasley, and Clark, 1973; Kantor, 1984; Zweizig & Rodger, 1982) stems, at least in part, from a desire to find more solid methods of program assessment. However, invaluable insights can be provided by patrons, and means to get such feedback must continue to be sought.

Survey techniques may be used before the fact in an effort to get information about patrons (e.g., library experience and attitudes, demographics, library needs, access to libraries) that can be used in program planning. This has been done recently at CMU with a group of entering students to find out about their library usage, attitudes, and expectations. A survey of students at Walter Reed Army Medical Center disclosed their use of local libraries, confidence in using libraries, and recommendations for scheduling of mandated visits by the librarian. Students in several courses which lead to the final research paper have been queried about their use of libraries and bibliographic instructional needs. All of these questionnaires have been short and easy to respond to and to tabulate.

Questionnaires and interviews can be used concurrently with courses or after program completion to find out about student and faculty information gathering patterns, such as frequency of library use, type(s) of use, other libraries used, and other means of locating information. Checklists/inventories are effective ways to gather these sorts of information.

Course-instructor evaluation forms are a familiar means of getting student assessments. Questions about library usage and satisfaction may be a part of the standard form. At Central Michigan, off-campus students are surveyed every third year for their perceptions about the library program. Questions deal with demographics, number of courses completed, use of local libraries, exposure to the CMU program, and evaluation of the program (Lessin, 1987). Informal discussions during class visits and telephone reference requests can also yield information about program usage and reaction, albeit in a non-systematic way.

The panel, or focus group, as used in market research, brings together a representative group of consumers, to discuss products and services. For program insight, such an approach could be vital in learning about patrons' usage and non-usage of
off-campus library services, and their suggestions for change. Panelists could be a combination of users and non-users, but talking separately with these groups might be even more edifying.

Test

To measure program impact, some libraries have turned to testing. Much library activity is based on untested assumptions. For example, if we provide bibliographic instruction, we assume that students learn something, which is subsequently applied as they gather information. Reference assistance is assumed to be accurate and helpful. Testing can offer an objective way to gather data on actual effects.

Experimental research offers models for bibliographic instruction, usually providing for pre- and post-testing of students and comparing the test results to those of a similar (control) group that received no instruction. Some librarians have also compared immediate test results of those of tests taken some time later (Hardesty, 1982).

Medical librarians (Pizer, 1968) have gone beyond citation analysis to devise a test, in which a sample of 300 documents is checked against holdings. Actual availability, as well as theoretical ownership, is checked; the length of time it takes to get items owned but not on the shelf is tracked. Results of such tests are useful for collection development and for systems analysis. Availability and accessibility measures have been developed by DeProsp@ (1973), Kantor (1984), and Zweizig and Rodger (1982).

Testing the accuracy of reference assistance has been discussed in the literature for some years. In one form, librarians knowingly participate in a test to find answers to a list of typical questions that come across reference desks. Unobtrusive testing works like the mystery shoppers employed by some department stores. Ringers request reference assistance, noting the responses given. It has consistently been shown that only about half the questions are answered accurately (Hernon & McClure, 1986), although librarian assessments have reported very high accuracy levels (Rothstein, 1964; Weech, 1974). While both techniques appear threatening, testing results underscore the need for ongoing quality control, whatever form it may take.

Document delivery mechanisms (e.g., U.S. mail, UPS, telefax) are important to external degree programs, requiring a balance between speed, economy, convenience, and document safety. One can easily compare costs or ask others for their experience
with delivery systems. But sending a sampling of the same
documents at the same time to the same addressee, and comparing
results, provides an undeniable indication of performance of
different delivery modes.

Comments and Conclusion

Dangers

By now the reader has inferred some of the dangers of
measurement. Data gathering may become an end, rather than a
means. It requires resources already in short supply. Statistics
may be gathered for which there is little use; important
statistics may not be analyzed; statistics collected and analyzed
may be ignored in decision making. Results may never get reported
to all who need to know. Measurement and evaluation may be seen
by some staff members as threat, rather than opportunity.

It is easy to gather readily available measures, when what
is needed is a systematic approach to measuring library
effectiveness. Yet most librarians lack training in measurement
and evaluation. Many of the phenomena decision makers really need
to know about are not easily measured or evaluated, e.g., user
needs, user satisfaction, patron use of libraries, and reference
accuracy. Despite all the efforts to devise methods for assessing
library effectiveness, the field is in its infancy; a survey of
the current literature suggests that the profession is in a time
of consolidation, rather than innovation.

Reliability and validity of results are always problematic.
For example, since quantity is emphasized, it would be easy to
skew results. Consistency in data gathering is hard to establish
and maintain. Many people do not respond to questionnaires, which
are often sent to a sample of the population; thus respondents may
be only a very small part of the group, and do not necessarily
reflect the total population. Since few patrons are knowledgeable
about what to expect from libraries, their satisfaction level may
be higher than it should be.

Interpreting data is difficult, without national standards
or averages with which to compare local activities. Perhaps a
national data gathering project could grow out of this conference.

Conclusion

Possibly the greatest danger to measuring library activities
is to be so consumed by the difficulties that no measurement other
than the obvious and convenient is ever tried. Looking at the
positive side, all libraries already have at least elementary measurement mechanisms in place, and automation provides many opportunities for painless gathering of data. Despite its shortcomings, there is a body of library literature that will assist librarians in developing their own approaches to program measurement, and one can go beyond the literature of the library field for more complex techniques.

Without accurate data on what their programs are doing, librarians are on dubious ground. A professionally subjective view of the workplace will always be appropriate. But the picture must be rounded out with a clear, ever expanding, objective view of the library service program.
References


Bibliography


Appendix A

Appendix

Sample Data Collection Forms

STUDENT RECORD

SS# ___________________________ CENTER ___________________________

NAME ___________________________

LAST FIRST

ADDRESS ____________________________________________________________

_______________________________________________________________

CITY ___________________________ STATE _____ ZIP ___________________

WORK PHONE ______________________ HOME PHONE ______________________

COURSE ___________________________ STATUS _________________________

COMMENTS _________________________________________________________

BOOK INFORMATION

REQUEST NUMBER ___________ DOCUMENT DATE (SUPPLIED AUTOMATICALLY)

AUTHOR ___________________________________________________________

_______________________________________________________________

BOOK TITLE ______________________________________________________

_______________________________________________________________

PUBLISHER ______________________ YEAR _______ ONLY _________

DELIVERY ACTION ______________________ TIME ENTERED ______________________

CALL NUMBER ______________________ DATE DUE ______________________

DATE BORROWED ______________________ RETURNED ______________________

HOLD ______________________ SECOND OVERDUE ______________________

FIRST OVERDUE ______________________
Appendix A (continued)

<table>
<thead>
<tr>
<th>DOCUMENT REQUEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE ORDERED (SUPPLIED AUTOMATICALLY)</td>
</tr>
<tr>
<td>DATE SENT</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTION</th>
</tr>
</thead>
</table>

| PERIODICALS | |
|-------------|
| ARTICLE SENT | PAGES MISSING |
| PERIODICAL NOT OWNED | INCORRECT DATA |
| YR. NOT OWNED | NOT ENOUGH DATA |
| ED. NOT OWNED | PAGES MISSING |
| VOLUME MISSING | IN BINDERY |
| ISSUE MISSING | OTHER |
| DATABASES | |

<table>
<thead>
<tr>
<th>BOOKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE SENT</td>
</tr>
<tr>
<td>BOOK NOT OWNED</td>
</tr>
<tr>
<td>ED. NOT OWNED</td>
</tr>
<tr>
<td>TITLE CHECKED</td>
</tr>
<tr>
<td>OUT</td>
</tr>
<tr>
<td>TITLE MISSING</td>
</tr>
<tr>
<td>DOES NOT CIRC</td>
</tr>
<tr>
<td>INSUFFICIENT DATA</td>
</tr>
<tr>
<td>INCORRECT DATA</td>
</tr>
</tbody>
</table>