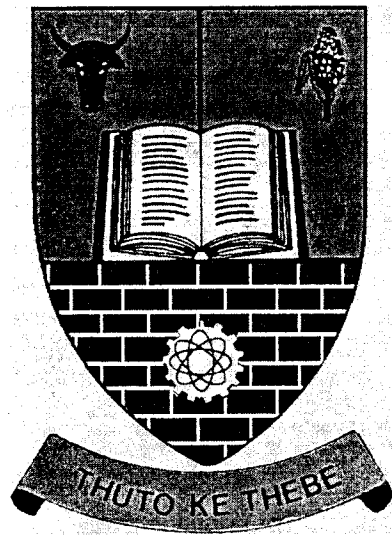


UNIVERSITY OF BOTSWANA



MLIS THESIS
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Department of Library and Information Studies

**AN ASSESSMENT OF USER EDUCATION IN ACADEMIC
LIBRARIES: THE CASE OF THE UNIVERSITY OF ZAMBIA**

By

Akakandelwa Akakandelwa

A dissertation submitted in partial fulfillment of the requirement for the
award of a Masters Degree in Library and Information Studies

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Mr. A. Mutshewa**

May 2000

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Declaration

The work contained in this dissertation was carried out by the author at the University of Botswana in the Year 2000. It is original work except where due reference is provided. It has never been or will ever be submitted for the award of any other university.

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A. Akakandelwa

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Dedication

This study is dedicated to the memory of our beloved father, Kachana L. Akakandelwa, and my beloved father-in-law, Kateule D. Chimputu, whose untimely deaths did not allow them to see us grow to maturity; to our mother, Silenga L. Kachana, and my mother-in-law, Mwape E. Chimputu, whose perseverance have seen us grow; to my beloved wife, Idah, who shouldered all the family responsibilities during my absence; and to our two sons, Kachana and Kateule, and our daughter, Silenga. You all have individually and collectively through your contributions made the completion of this program come true.

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Nitumezi, Mulimu ami tohonolofaze!

ABBREVIATIONS

| | |
|---------|--|
| ACRL | Association of College and Research Libraries |
| ALA | American Library Association |
| ALPSP | Association of Learned and Professional Society Publishers |
| BA | Bachelor of Arts |
| BAED | Bachelor of Arts with Education |
| BALIS | Bachelor of Arts with Library and Information Studies |
| BANQS | Bachelor of Arts (Non-quartered) |
| BEDPR | Bachelor of Education (Primary) |
| BEDSP | Bachelor of Education (Special) |
| BENG | Bachelor of Engineering |
| BIS | Bibliographic Instruction Section of the ACRL |
| BMC | Bachelor of Mass Communications |
| BMINSC | Bachelor of Mineral Science |
| BSC | Bachelor of Science |
| BSCAG | Bachelor of Agricultural Science |
| BSCED | Bachelor of Science with Education |
| BSCHB | Bachelor of Science and Human Biology |
| BSCNQS | Bachelor of Science (Non-quartered) |
| BSCNRS | Bachelor of Science and Natural Resources |
| BSW | Bachelor Social Work |
| BVETMED | Bachelor of Veterinary Medicine |
| CAE | Certificate in Adult Education |
| CAL | Computer assisted learning |
| CD-ROM | Compact disk read only memory |
| CILAW | Certificate in Law |
| COMESA | Common Market of Eastern and Southern Africa |
| CRTDEM | Certificate in Demography |
| DAE | Diploma in Adult Education |
| FINNIDA | Finnish International Development Agency |

| | |
|--------|--|
| INESOR | Institute of Economic and Social Research |
| LIRT | Library Instruction Round Table of the ALA |
| LIS | Library information skills |
| LLB | Bachelor of Law |
| LOEX | Library Orientation Exchange |
| MBCHB | Bachelor of Medicine |
| OAU | Organization of African Community |
| OPAC | Online Public Access Catalogue |
| OSU | Ohio State University |
| PhD | Doctor of Philosophy |
| SADC | Southern African Development Community |
| SDI | Selection of Dissemination of Information |
| SPSS | Statistical Package for Social Sciences |
| STM | Scientific, Technical and Medical Information System |
| TCP/IP | Transmission Control Protocol/Internet Protocol |
| UNZA | University of Zambia |
| UTH | University Teaching Hospital |
| WHO | World Health Organization |

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Definition of the Terms Used

Academic Library

Any library servicing the needs of an educational institution, offering courses beyond the elementary or secondary level, which culminate in a degree (Wiegand and Davis, 1994).

Awareness

To be aware of means to have knowledge or an idea of something, somebody, an event, a place, or information that one needs (Boakye, 1999). In this context awareness means having knowledge of the facilities, resources and services offered at a library.

Bibliographic Instruction

Bibliographic instruction is concerned with enabling the user to obtain information required, by making use of the total resources and material available at the library. Thus it is concerned with information retrieval (Fjallbrant, 1977).

Information literacy

It is the ability to effectively access and evaluate information for a given need. It includes an integrated set of skills (research strategy and evaluation) and knowledge of tools and resources (Breivik, 1985).

Library Orientation

Library orientation is concerned with enabling the user to become aware of the existence of the library and the services available there (WHAT is available); and enabling the student to learn about the general use of the library (WHEN the library is open, WHERE specific items can be found, and HOW to actually obtain and borrow the material required). Library orientation should be provided for new users (Fjallbrant, 1977).

User education

There is an extensive terminology associated with user education. The most commonly used terms are bibliographic instruction, library instruction, library skills, and

information literacy. Other terminology used include library-use instruction, library literacy, library research skills, library orientation, library education, information education, reader education, reader guidance, reader instruction, user instruction, user training, user guidance, and media guidance (Feather and Sturges, 1996). A program of user education might include tours, lectures, exercises and the provision of support materials (Prytherch, 1987). User education embraces information literacy, library orientation, bibliographic instruction, and library instruction.

In this study, user education will be interpreted as a program of instruction provided by librarians to users, to enable them make more efficient and independent use of the library's stock and services.

ABSTRACT

This study assessed the effectiveness of the current user education programs at the University of Zambia (UNZA). Specifically, the study sought to identify the types of user education programs offered at UNZA; obtain the views of students, academic faculty and library staff on the effectiveness of the current user education programs; determine academic faculty's need for library use in their classes and their opinion on students' need for user education that should be provided to students. The study also sought to identify problems, if any, that affect user education and its effective implementation at UNZA. Furthermore, the study intended to ascertain the extent to which user education has administrative and academic support at UNZA.

In order to achieve the above objectives, data were collected from respondents through closed and open-ended questionnaires and structured interviews. Five hundred and forty-four (544) questionnaires were distributed to students and out of these 355 (67%) were completed and returned. Sixty-six questionnaires were distributed to the academic faculty, out of which 64 (97%) were completed and returned. Furthermore, six professional library staff were interviewed.

The study has revealed that the current user education programs at the University of Zambia mainly consist of library orientations in the form of guided tours. It has been found that these programs are inadequate in content, timing and approach. There is no written policy with regard to library user education. Furthermore, the user education programs are not reflected in the mission statement of the library.

The study has also revealed that the majority of the students are aware of the availability of library-based information technology resources but lack skills to use these resources and as a result these resources are underutilized.

Furthermore, it has been revealed that apart from academic faculty in the Faculties of Humanities and Samora Machel Veterinary Medicine, the level of academic faculty's involvement in user education is very low. Academic faculty in Humanities and Samora

Machel School of Veterinary Medicine run courses that have components of library skills. Most academic faculty are not involved in the teaching and giving of instruction on how to use various library resources and literature sources relevant to the requirements of their specific disciplines.

The major problems affecting user education are a lack of a user education policy, lack of professional library staff, and lack of commitment from library management. Other barriers identified include lack of publicity and current awareness services, poor physical premises, inadequate library collections and information technology, and the unfriendly attitude of library staff.

Despite the above problems, the study has revealed that most academic faculty are in support of the introduction of a formal user education where the teaching staff and librarians work in partnership. However, there is a general lack of support from university management in terms of funding.

In order to make the user education programs effective and successful, the study concludes by recommending the implementation of the following elements: the formulation of a Library User Education Policy, the establishment of a Library User Education Committee, the creation of a Library User Education Unit, the appointment of qualified and competent librarians, and the provision of adequate funds and adequate publicity.

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CHAPTER 1

BACKGROUND

If you give a man a fish
He will have a meal.
If you teach him how to fish,
He will eat all his life.

An ancient Chinese proverb

1. 1 Introduction

The basic assumption that governs the growth and development of all academic libraries is that the library plays a central role of critical importance in the instructional and scholarly life of the college or university (Lynch and Seibert, 1980). Academic libraries are integral parts of the institutions they serve. Therefore, collections are developed and services are designed to meet the instructional programs of the particular institutions.

Librarians have long realized that availability of materials in the library does not mean their accessibility to users. Consequently, programs of user education have been designed to make the library a more effective instrument in the learning process by improving users' ability to use library resources and services effectively to meet their information needs.

Kawatra (1992) summarizes reasons why it is necessary to provide user education in academic libraries as follows:

- The world is experiencing an exponential increase in all kinds of information-bearing materials. These materials have to be sifted to find the required information.

- ❑ Several new methods of information transfer, such as mechanized information retrieval systems, are being developed, giving rise to new aspects of user education.
- ❑ Both educational and research topics are becoming increasingly multidisciplinary in nature, thereby drawing information from a wider range of sources.
- ❑ Failure to find necessary information delays research or decisions.
- ❑ Lack of awareness of information leads to duplication of effort. Various estimates of the extent and cost of this have been made.
- ❑ As yet, little use has been made of modern information storage and retrieval systems.
- ❑ Little use is made of even printed abstracts and indexes, especially in engineering and technology.
- ❑ Library surveys reveal many unsatisfied users, many of who do not consult either the staff or the appropriate aids to retrieval.
- ❑ Many undergraduate courses involve extensive class and practical work. Therefore the little time available for private study must be efficiently used.
- ❑ In all educational institutions, students must be able to find, acquire and use all kinds of educational materials.
- ❑ Government, with its heavy investment in research, has a responsibility to ensure the effective use of the information available and therefore the competence of users of information.

In light of the ever-growing quantity, variety and complexity of information sources in the library and increasing emphasis on teaching methods which place upon students greater responsibility for independent learning, there is a need to adopt more intensive library user education programs that will help students attain a higher degree of competence in the use of information resources and services.

1.2 Historical Background of User Education

The origin of user education is traced back to Ralph Waldo Emerson's comment in the 1840s. Emerson commented that libraries needed a "prophesor of books" (Tucker, 1980).

By the 1850s, American librarians instituted patrons on library use. Louis Shore's library-college movement in the 1920s, Patricia Knapp's Montieth College program in the 1960s, and Samuel Green's attempt to initiate a reference desk in the public library in 1970, are all testimony to this. In 1949 the three-stage user education program proposed by the UK Library Association's University and Research Section was a landmark. Ranganathan (1961) prescribed the role of an intermediary as a user-friendly reference librarian. Bonn and Bryant (1960), Fjallbrant and Stevenson (1978), Hopkins (1982), Roberts and Blandy (1989) and others have made extensive historical assessments of user education. Progress was slow, partly due to the problem of defining the place of user education in the library service; it was lost in the informational functions of reference service.

Hardesty, Schmitt and Tucker (1986) observe that significant growth in library user education during the 1880s and 1890s followed naturally from the dramatic changes occurring in education in the same period in the United States of America. Substantial, continuous course offerings and course-related lectures came about only as a result of major developments in the library's academic environment in the latter part of the nineteenth century. Among these trends were the adoption of original research as a necessary function of instruction featuring student presentations, and the birth of new curricular in the social sciences and in professional and technical education. Consciously imitating their German counterparts, American universities created doctoral programs designed to make graduate-level research the capstone of higher learning. New graduate departments in the various disciplines employed increasingly rigorous methods of scholarship and, thus, made greater demands than ever before on the services of and collections of academic libraries. The libraries, in turn, were able to increase their administrative support and they constructed new buildings, oversaw rapidly growing collections, and extended their hours of service. This aggressive, busting, unprecedented growth created an environment in which library use instruction was the subject of discussion and experimentation.

As a result of these developments academic libraries introduced optional credit courses in bibliography, stressing descriptive bibliography, the history of books and printing, while

at the same time laying a solid library-use component. Usually taught by the librarian, the course included intellectual or enumerative bibliography designed to show students how to determine the intellectual contents of books. It introduced students to indexes, bibliographies, and reference works of a general nature and, occasionally, sources in specialized subjects. Assignments necessitated an orientation to the library's physical arrangement, exposure to the catalogue and the classification system used by the library, and knowledge of the bibliographical apparatus underlying disciplines in the humanities and social sciences.

Academic libraries in the latter part of the nineteenth century attempted methods other than the credit course. They gave book talks, bibliographical lectures, and orientation tours. Hardesty, Schmitt and Tucker (1986) report that the librarians' experimentation did not, however, produce any established structure or even a generally accepted method for effective instruction. The quality and style of their approaches varied widely from librarian to librarian and from institution to institution. They were sometimes confused about the differences between user education and education for library service. They did, however, begin the dialogue about the nature and purposes of user education. They called for clearly stated objectives for their user education programs, they sought conceptual models for the library (referring to it as the 'heart of the university' or the 'laboratory of the liberal arts'). Perhaps, of the greatest significance, the librarians caught a vision of the educational potential of the library in the academic community. Among those who were in the forefront in promoting this vision were Justin Winsor, Otis Hall Robinson, Melvil Dewey, and Patricia Knapp (1966).

Robertson (1992) argues that though the instruction of students in libraries and information is now regarded by most academic librarians as being of major importance, this is a fairly recent development. In the 1970s, despite being repeatedly emphasized in the literature, there was still, in academic libraries, an alarming lack of active response to, or even consideration of, the need to instruct their users. Part of this reluctance stemmed from the fact that many large institutes expected their equally large libraries to be run by very few librarians.

However, the past 30 years have seen dramatic changes in libraries as a whole and the consequent changes in attitude towards user education are encouraging (Robertson, 1972). Nowadays, many libraries have instructional activities written into job descriptions and look for related teaching experience in candidates (Dyson, 1978). Many librarians now also feel that it is a professional responsibility to teach students how to make the best use of library resources, especially at undergraduate level.

Fjallbrant (1996) reports that a number of academic libraries have seen the need to provide formal user education. During the 1970s and 1980s, many academic libraries in the United Kingdom, the United States, Scandinavia and Australia started fairly ambitious programs of user education, bibliographic instruction, or reader education. Under the latter part of 1980s there was a feeling that the use of expert systems and computer-based tools would reduce the need for this kind of education and training, but the increase in complexity of both media and methods has resulted in an even greater need to teach the users of scientific, technical and biomedical systems basic concepts about their information systems and to provide training in information skills.

During the last twenty years there has been a growing emphasis on programs of user education in many Nordic academic libraries, particularly specialized libraries for engineering, medicine and economics.

User education has continued to grow from the 1970s to the present. It is one of the most active areas of librarianship today. Its role in the educational process has become established, not for all educators by any means, and not even for all librarians, but far enough to have made an impact. Most librarians understand its contributions to various levels of education, to lifelong learning, and to more effective use of library resources in general.

Though user education has come of age, many issues are yet to be resolved-a major one is that it is still not integrated with other aspects of library services. Assessment of needs,

clear goals and objectives, and involvement of both library staff and academic faculty in the development of programs are still much needed.

1.2.1 Current Trends in User Education

Dramatic changes in technology and society are having a considerable impact on libraries and their instruction programs. These changes have created an urgency to teach users how to become more effective, efficient, and independent in their information searching. In response to this the goals of library user education have expanded from teaching information retrieval tools to teaching concepts, and from library instruction to information literacy and lifelong learning (Tiefel, 1995).

While lectures, tours and seminars are traditional methods, programmed learning, "teaching machines", audiovisual tools, and computer-assisted learning (CAL) are the recent advances. User education is not merely a library tour or a brochure, it includes searching databases (local and global) and generally making the user less dependent on others. The direction of information and libraries points more emphasis on library user education (Tiefel, 1995). In a steady stream of progress, libraries have developed and expanded programs to meet the changing needs of users. The initial momentum was slow to build and it has only been during the past decade that dramatic growth has been observed. Nearly all library associations have created bibliographic instruction committees (Young, 1980).

Feather and Sturges (1996) observe that the emphasis on user education issues, which started growing in the 1960s, is evidenced in the amount of literature on the subject emanating from that time onwards. Behrens (1993) reports that *Reference services review* has published annual reviews of the literature. The reviews for the last five years (Rader, 1988; 1989; 1990a; 1990b; 1991; 1992) give an indication of the extent of the literature on user education. For instance, in 1987, 130 references were listed in the review; in 1988 there were 149; 1989 had 158 references; 1990 had 132; and 1991 had 195 references-an increase of 48% over the previous year. Behrens (1993) further reports that, the majority

(61%) of the publications in the latest annual review (1991) deal with user education in academic libraries.

Arising from this increased demand for user education, five trends may be identified:

1. The number of professional journals covering bibliographic instruction activities has expanded;
2. Recently, more publications have appeared that focus on the need for measurable objectives and rigorous evaluation. If publication levels serve as a barometer of program activity, greater use of bibliographic instruction is occurring in institutions of learning;
3. The increase in doctoral dissertations on bibliographic instruction has added a qualitative dimension to the paucity of serious research, and perhaps signifies the acceptance of user education as a topic of continuing scholarly importance;
4. Establishment of clearinghouses like LOEX (Library Orientation Exchange) and BIS (Bibliographic Instruction Section of the Association of College and Research Libraries [ACRL]) for sample instructional materials and dissemination and sharing of experiences and ideas-lending user education materials developed by other libraries-handouts, workbooks, publicity, videotapes, audiotapes, etc.; publishes newsletters devoted to news about user education;
5. Establishment of ad hoc committees on instruction in the use of library resources by library associations like UK Library Association. These committees were established to discuss user education during conferences. They are also responsible for gathering and disseminating information about user education vertically and horizontally throughout the profession. They organize exhibitions on user education and promote cooperation on user education among libraries. The American Library Association (ALA) established LIRT (Library Instruction Round Table) to promote user education conferences, programs, and publications.

1.2.2 The Future of User Education

Throughout the world countries are becoming technology and information-dependent as fast as their economies allow. Educational systems and programs in different countries are in varying stages of development. In most cases all these educational systems are in need of updating due to new technologies and new information needs. This is an excellent opportunity for librarians and information specialists to reach out and aggressively pursue the integration of user education programs into all types of curricula. It is an opportunity for librarians to emerge as leaders in information work. In response to this, librarians are applying the changes to broaden objectives for teaching the use of information. Expert systems like the Gateway (an online program designed to help undergraduate and graduate students identify, evaluate, and select the most useful information for their needs without the help of library staff), developed by the Ohio State University (OSU) Library, are an example of how libraries and librarians are responding to the demands of the future (Tiefel, 1995).

Fjallbrant (1990b) has observed two main effects of information technology on user education. On one hand, the growing complexity in information handling and storage techniques brings about a greater need to teach users what is available, how to choose the most appropriate tool for their needs and how to use it efficiently. On the other hand, new methods of digital processing and storage provide excellent tools for teaching user education. Information technology can break down barriers to teaching information retrieval in the future.

Information literacy will be essential for the growing cadre of knowledge workers in the 21st century (Green and Gilbert, 1995). Information literacy, which is now the avowed objective of most library user education programs, is an expansion of instruction as to objectives, materials, and methods. Information literacy extends its objectives to teaching information-seeking skills to all ages and at all times. It prepares people to use information effectively in any situation.

To achieve these goals, librarians and faculty in academic institutions will have to work closely together in developing teaching strategies using the latest technologies. One example of the integration of information literacy into academic curriculum is found at Cleveland State University, where the curriculum has been rewritten to include an information literacy component (Rader, 1990a).

As collection development wanes in importance and access waxes, the teaching role of the library will become more important (Tiefel, 1995). Penniman (1992) cautions that librarians must shape the future and not let the future shape them. He sees the challenge not as delivery of information but as ways of helping people understand and use it.

Rader and Coons (1992) strongly argue that electronic information technologies are bringing about major changes in academic libraries by making it mandatory for libraries to set up sophisticated telecommunication networks in cooperation with computing services. Changes will continue to impact libraries as they alter the way they collect and deliver information to their campus community. As new modes of storage and dissemination of information become available and artificial intelligence facilitates more user-friendly and human-machine interfaces, the character of the library will be radically changed. Libraries are on their way to becoming networks for accessing scholarly information and disseminating it electronically to their users. The need for training and education of users will grow extensively and librarians will find themselves increasingly in the role of "information educators" on campus. In the future, librarians must not only work for greater access to the information base of society, but must educate citizens to be able to use that information effectively and efficiently.

Kenny (1987) also argues that user education will increase in importance as libraries tie into national networks and full-document delivery becomes standard procedure for users. Therefore, user education for the future must be considered as important as the cataloguing or checking out of materials. Only educated users will be able to make libraries work for them. Librarians who do not educate their patrons are doomed to do their work for them. With the growing complexity of libraries, especially in the area of

increased digitization, and with the rapidly rising cost of traditional library services, education of users will become the only practical approach to public service in an academic library.

1.3 The University of Zambia

1.3.1 Background

The University of Zambia (UNZA) is the oldest and largest university in Zambia (University of Zambia, 1984). It was established in 1966 and has approximately 3, 464 undergraduates (The World of Learning, 1999) and some 50 postgraduates who study in one of the following schools, directorates and institutes:

1. School of Education
2. School of Engineering
3. School of Natural Sciences
4. School of Mines
5. School of Agricultural Sciences
6. School of Veterinary Sciences
7. School of Humanities and Social Sciences
8. School of Law
9. School of Medicine
10. Directorate of Distance Education
11. Directorate of Research and Graduate Studies, and
12. Institute of Economic and Social Research (INESOR).

1.3.2 Mission of UNZA

At the threshold of the new millennium, the University's mission has been defined as: to meet the needs of individuals and society through excellence in teaching and learning, research, and service, in order to foster sustainable human development and a culture of peace (University of Zambia, 1993). To this end the University is committed to:

- Fostering a wide variety of teaching and research that maintains, renews, promotes, advances, disseminates and assists the application of, knowledge, and develops intellectual independence;

- Providing a stimulating environment in which students may develop lifelong learning skills;
- Serving as a repository of knowledge and expertise, and accept its role as a critic and conscience of society;
- Creating partnership with the world of work, other civil society; and
- Strengthening its services to society by putting its knowledge and expertise at the service of national development and the wider African and International communities.

1.3.3 The demand for mass education and lifelong learning

The University in its publication entitled **Putting Quality First: Strategic Plan, 1994-1998** indicates that:

“as a result of the evolution of society into an era of enhanced communication and information within the context of an internationalized economy, higher education institutions elsewhere in the world are moving from an elite to a mass clientele. The rapid changes in the job market, the low level of development of the private sector and the growing graduate unemployment in formal sectors all point to the need for a model of learning that best meets these challenges. The main concern of the University in these circumstances should be directed towards the training of entrepreneurs, the updating of knowledge and the upgrading of skills for trained personnel. Thus the conventional model of learning will in some cases need to be complemented by a model of lifelong learning...”

The University has planned to expand its mission through lifelong education programs such as distance learning and open learning systems, evening classes, part-time courses, etc.

1.3.4 UNZA Library

UNZA is served by the Main Library at the Great East Road Campus plus two branch libraries: the Samora Machel Veterinary Library serving the Samora Machel School of Veterinary Medicine, and the Medical Library serving the School of Medicine situated at the University Teaching Hospital. Also affiliated to the Main Library is the Institute of

Economic and Social Research Documentation Unit serving the Institute of Economic and Social Research (INESOR) located at the "Munali Campus" about eight kilometres from the Main Library.

1.3.4.1 The Main Library

The Library moved into the present building at the centre of the Great East Road Campus in August 1969. The building is designed to hold 300 000 volumes and to seat 1 600 readers (UNZA Press, 1995). The Library provides centralized library services for the entire University, including Extension and Correspondence Studies services.

Most of the collections are readily available on an open-access basis. The library stock is estimated at 500 000 volumes, a 100 current periodical titles and 29 CD-ROM database titles. It also receives approximately 600 more titles by donation and exchange (UNZA Press, 1995).

The Library is a repository for printed official documents of the United Nations and agencies and, until 1979, it was a selective repository for Canadian Government documents (UNZA Press, 1995). In addition to the UN documents, the division also has materials of other regional and international organizations like the defunct East African Community, the Organization of African Unity (OAU), the Southern African Development Community (SADC), the Common Market for Eastern and Southern Africa (COMESA), the Commonwealth, etc. It also has selective government documents from neighboring countries such as Kenya, Tanzania, Uganda, Malawi, Zimbabwe, Angola, South Africa, Lesotho, Swaziland, Mozambique, Namibia, and Botswana.

Other categories of Special Collections are Zambian, Oral history and archival materials, Africana, University collections, theses, publications of international organizations, and bound local newspapers.

1.3.4.2 The Medical Library

The Medical Library is located within the University Teaching Hospital (UTH) complex on Nationalist Road in Lusaka. It is primarily designed to serve the needs of the staff and students of the School of Medicine but it is also open to the Senior UTH medical, paramedical and nursing staff and students.

The Library holds 10, 000 volumes and receives some 300 current periodicals by purchase or donation. The Library also acts as a repository for the printed publications of the World Health Organization (WHO) publications.

1.3.4.3 The Samora Machel Veterinary Library

This Library was opened in 1986 and is located at the Great East Road Campus at the Samora Machel School of Veterinary. It serves the needs of the students and staff of Veterinary Medicine. It has a seating capacity of forty-two readers. It holds 1, 000 volumes and currently receives 108 periodical titles by purchase or regular gift. The Library has a museum where animal models and skeletons are kept.

1.3.4.4 Library-based information technology resources

In 1992, UNZA Library was granted capital funding by the Finnish International Development Agency (FINNIDA) for library automation. The Library purchased six Dynix Library System modules: Acquisition, Cataloguing, Circulation, Serials, Short Loan Collection (Reserve Bookroom), and Online Public Access Catalogue (OPAC). Library users are now able to search using OPAC. Readers have also access to CD-ROM and Internet facilities. The OPAC is accessible at four physically separate locations: Main, Medical, and Veterinary Libraries, and INESOR Documentation Unit. It is also accessible from various parts of the world via TCP/IP (Yumba, 1998).

1.3.4.5 Mission of UNZA Library

The mission of the University of Zambia (UNZA) Library is to serve the learning, teaching and research needs of its students, teaching staff, researchers and research affiliates (University of Zambia Library, 1999). It is also designated a National Reference Library and this means that its facilities are accessible to the general public. In addition, it is a Depository for the United Nations publications.

These fundamental functions of the Library are closely linked to the basic functions of the University, namely: to conserve the existing knowledge, to transmit knowledge through teaching, and to create new knowledge through research. The Library is, therefore, the University's principal instrument in the conservation of knowledge through its rational, systematic and comprehensive acquisition of all types of human communications records, published and unpublished, written or oral in recorded form, that embody the ideas of knowledge of the past (Aguolu, 1983), since "each new idea or invention grows out of accumulated and conserved knowledge" (Wilson and Tauber, 1956).

As a storehouse of information or a record of human experience to which students, academic faculty, and researchers may turn for data or information, the Library stands in the same relationship to the society as the memory to an individual by making available and accessible to its users information resources needed for teaching and for students' independent study. By offering instruction in the use of library and bibliographical resources, the Library participates in the transmission of knowledge (Aguolu, 1983).

The University Library is therefore a veritable repository of knowledge that provides vital underpinnings for national development. Since it is an integral part of the University, it has an educational role. It should not exist as an inert repository of knowledge, but as a dynamic instrument of education and a living agent of enlightenment and progress (Aguolo, 1983). While not bound to the design of academic programs and initiatives, the university library is bound to its mission statement, which pledges support to its parent

body's endeavor. One such commitment is that all students should graduate with skills enabling them to analyze information critically (Luckett, 1997). Therefore, educating the library user to think critically about search strategies and evaluating all information found could be the appropriate vehicle for encouraging and reinforcing independent thought and freedom to learn (Gentil, 1999).

As can be seen from the statement below, the University acknowledges the vital role played by the Library. This is noted in the statement below:

“The capacity of the Library has a critical bearing on the attainment of the University’s objectives in teaching and learning, research and scholarship. It is a sine qua non. A library is no longer just a place where books and other printed material relevant to teaching, learning and research are regularly collected, catalogued and preserved. It is a nerve centre for the interaction between information providers and users on which modern learning, teaching and research are greatly dependent. Thus in a modern setting, libraries provide not only a physical location but also an intellectual context of the storage, preservation and exchange and utilization of knowledge (University of Zambia, 1993).”

1.3.5 Categories of users and their information skills needs

1.3.5.1 Undergraduate Students

Whilst education is being given a high priority by the Government of Zambia, and while educational opportunities for young people are rapidly expanding, the fact remains that most schools in the country do not have libraries (Lungu, 1984; 1990). At the same time, while in recent years the Zambia Library Service has continued to expand its services, most rural areas are lacking library services. Lungu (1984) further reports that where libraries exist, they are inadequately used. The amount of time and resources allocated to school libraries are insufficient to raise the knowledge of students to the requirements of higher education. Consequently, students arriving at the university have had little or no guidance in the use of libraries previously. They lack study and library skills and worse still are not aware of the full potential of a library as an information resource and have little idea of the role the library could play in their education. In particular, they are not aware of the potential human component within the library, namely its staff. The education system is not promoting the use of information and users are not trained to be

aware of the value of information. This means that the demand for information services is low. The author is of the opinion that if this deficiency in library skills is not anticipated and remedied, it could lead to frustration and loss of productivity by such students. Given this background of students, it can not be overemphasized that thorough training of students who are entering the university is a pre-requisite for successful educational application of the library information resources. Often students are self conscious of their lack of knowledge and are reluctant to ask advice. Potential learning experience would not be lost if students are trained to help themselves and are subsequently given the opportunity to learn in privacy and at their own pace.

1.3.5.2 Postgraduate Students

User education at UNZA is mainly targeted towards the undergraduate students. The Library does not have an established formal user education program for postgraduates, apart from a few orientation programs which are offered on request by either individual students or some departments. It is assumed that postgraduates had acquired information skills whilst they were undergraduates.

In the present Zambian Education system, it would appear that postgraduate students have the greatest information requirements and, therefore, the greatest need for information skills. The observation made by Barry (1997) that the need for information skills for United Kingdom postgraduate students is even greater, in some ways, than that of established academics, may be true in the case of UNZA. For instance, the need to be comprehensive and up-to-date is perhaps never greater than in the masters and doctoral levels. Furthermore, postgraduate researchers have not yet built up the same information reserves as more established academics: rich personal collections of publications and a network of personal contact with expert colleagues, which can shortcut the need for extensive information seeking (Barry, 1997). The lack of user education programs at UNZA is compounded by lack of relevant information resources for their courses; and worse still there is a lack of interlibrary loan facility.

Postgraduates, as Barry rightly observes, may benefit most from using electronic sources. CD-ROM databases will enable them to cover the literature more comprehensively; the Internet can furnish them with information on current projects through pre-publications, via project home pages and preprint bulletin boards. Furthermore, electronic communication can help them to build up a network of contacts; online mailing lists will alert them to useful seminars and conferences in their field and bibliographic databases will assist in management of a large literature base. There is, therefore, an urgent need to provide resources and user education to this category of users.

1.3.6 User Education at UNZA Library

The Readers' Services Division is charged with the responsibility, among others, of conducting user education. The Serials Division works closely with the Readers' Services Division by referring users to the Reference Librarian for counseling and assistance in information retrieval methods (Zulu, 1988).

Each year a library orientation program is usually prepared to introduce first year students (freshmen) to library use. This is conducted in the first few weeks of arrival. An open invitation is extended to all new students through their respective faculties (schools) to attend library orientation. Students are grouped by faculties and each faculty is allotted time when to come for orientation. The students assemble in front of the Library and are given a brief talk by the Reference Librarian on the history of the library, resources available and the personnel. They are also informed of the benefits of being able to utilize the library facilities and resources in their studies. They are then divided into groups of 20 to 30 students and taken on a tour of the library. An Assistant Librarian leads each group. During the tour, the students are taken round the various departments of the library, taught some practical aspects of the library such as the use of the catalogues, and shown the various facilities and services offered in the Library. The tour is also expected to give the students the actual physical and psychological experience of being in the library.

The last stage of the user education program is at the Issue Desk where the students are formally taken through the registration process and taught how to borrow books. The whole process lasts a little over an hour. There is no involvement from academic faculty. Attendance varies, sometimes very high, at other times very low.

The objectives for which this library orientation is intended to serve can be summarized as follows:

- To welcome students and to communicate an atmosphere of helpfulness and friendliness.
- To introduce library policies and regulations such as opening hours, overdue fines, etc.
- To provide an opportunity for the quick and mass registration of students with the Library and a chance to verify the identities of recipients of library pockets.
- To introduce students to the physical facilities of the library itself.
- To introduce the departments or service desks and the appropriate staff members.
- To introduce the organization of the collection with specific goal of reducing user anxiety about trying to locate materials.
- To introduce the concept of library catalogues as keys to the library's collection.
- To introduce specific services such as CD-ROM, photocopying, binding, and interlibrary loan.
- To give a full understanding to students of how to use the Special Collections and the Short Loan Collections.
- To introduce reference materials as important sources of information.
- To motivate students to come back and make use of the library resources.

Library orientation is usually regarded as an essential part of the functions of the Library. It provides an opportunity to students to know of the existence of library resources right from the beginning of the undergraduate studies. As already mentioned above, it also provides an opportunity to conduct quick and mass registration of students with the library.

Informal discussions by the present researcher with some of the library staff at UNZA indicate that it is becoming clear to most library staff that the current user education program at UNZA Library leaves much to be desired. Zulu (1988: 82) reports that it has been the Library's concern that most of the users do not know the role of the Reference Librarian. She also observed that the orientation sessions were inadequate and most students still found difficulties in locating materials. She further observed that there were no follow-up programs to monitor and evaluate the effectiveness of orientation programs.

Chanda (1982) carried out a user survey in which users were asked whether they knew that they could get help from the Reference Desk when they had problems in using the Library. 40% of the respondents said 'yes' while 60% said 'no'. Chanda further reported that materials in the Special Collections Division were underutilized because users were not aware of their existence. Other findings were:

- That both students and members of the academic faculty were not aware of most of the materials that could assist them in their study and research;
- The use of audiovisual materials were not popular. This could be due to the lack of knowledge of the holdings in this area; and
- That because the Special Collections Division is not completely open access, people are not aware of the materials available in this Division.

The above observations that students at UNZA are not given comprehensive user education question their capacity for independent learning. Students at UNZA, as in all institutions of higher learning, are expected to complete certain academic tasks such as assignments and research projects independently. Successful completion of such tasks relies heavily on the student's ability to retrieve required information with little assistance from library staff. As already noted above, the majority of these students come from communities with inadequate school libraries. As students arrive at the university they are expected to engage in tasks which require the use of the library without being properly instructed in the effective use of these library resources.

The present shift of emphasis in higher education from complete reliance on the lecture to increasing independent study implies that every student is expected to be able to “consult authorities and compare results” (Nwoye and Anafulu, 1973). The library’s role in university education has therefore become paramount, and if a student is unable to use its resources properly then the library has failed in its job. Though user education has become essential in academic libraries, not much is known about the perceptions of Zambian University Librarians, academic faculty, and students regarding this issue. There is a dearth of literature on this subject. Despite the fact that the University has long been in existence, no attempt has been made to seek the opinion of university administrators, academic faculty and students regarding the services of the University Library. Such opinions would have contributed to effective and efficient provision of library resources and services. In view of the big investment a university library represents, to have one that is not properly utilized is a big loss.

To serve effectively the information needs of students, librarians need to determine, primarily, the information needs of students in various programs; how much students know about finding information, knowledge organization, information use, and ability to find information. On the basis of this, libraries can develop user education programs. This research, therefore, intends to establish the extent to which the current user education program is meeting the information skills needs of the users.

1.4 Statement of the problem

As discussed above, many students in Zambia who enter institutions of higher education come from secondary schools that lack libraries. It can, therefore, be argued that these students have limited knowledge of library resources or lack the ability to exploit them to retrieve relevant pieces of information. Consequently, they cannot be expected to participate effectively in independent academic activities such as the writing of assignments, research papers and the preparation of quality papers for class presentation and discussion.

The researcher, through his experience as an Assistant Librarian at the University of Zambia Library, has observed that the institution offers only library orientation to new students and lacks an extensive user education program. Many researchers like Fjallbrant and Malley (1984), MacLeod (1986), Mnjama (1994) and Kargbo (1999) have observed that although many universities conduct library orientation programs for first year students, most of these programs do not meet the needs of students. There are several serious weaknesses about the general purpose, objective, content, style and methods of these orientation programs. The weaknesses center on the following areas: duration, number of students, timing of the programs, lack of academic involvement, lack of teaching aids, lack of feedback from the participants, ignorance of the value of user education among library staff, and lack of a user education policy. Most orientation programs are done at the beginning of the academic year when students are too preoccupied with becoming acquainted with their academic faculty, course registration, securing accommodation, and a host of other pressing problems. The groups of students taken on library orientation are usually too large to command any attention. Furthermore, the duration is too short for students to know how to adequately use all the library resources. Academic faculty are not usually involved and as a result less value is given to the orientation programs. It is in the light of this background that the researcher is conducting this research to determine to what extent the current user education program is meeting the needs of students at UNZA.

1.5 Objectives of the study

The overall objective of the study was to assess the effectiveness of the current user education programs at the University of Zambia. Specifically, the study intended:

1. to identify the types of user education programs being offered;
2. to obtain the views of students, academic faculty and library staff on the effectiveness of the current user education programs;
3. to determine students' need for an effective user education program; determine faculty's need for library use in their classes; their opinion on students' need for

user education; and their opinion on the types of user education that should be provided to students.

4. to identify problems, if any, that affected user education and its effective implementation at the UNZA;
5. to ascertain the extent to which the idea of user education had administrative and academic support at the UNZA; and,
6. based on the findings, to make appropriate recommendations for the effective administration of user education programs at UNZA.

1.6 Research Questions

Based on the objectives of this study, the following research questions were formulated:

1. What types of user education programs are being offered for all categories of students at UNZA? How effective are these user education programs?
2. Are students aware of the available library-based IT resources? What skills do students need to access these library-based IT resources?
3. What is the role of faculty in the current user education programs?
4. What are the problems affecting the current user education programs?
5. How much academic and administrative support do the current user education programs receive?

1.7 Hypotheses

This study was based on the following null hypotheses:

1. Students do not perceive that ability to use information resources has an influence on their academic success.
2. There is no relationship between user education and ability to use information resources.
3. There is no relationship between students' awareness of the available information resources and students' use of these resources.

1.7.1 Independent variables

In this study, the independent variable was identified as the 'level of library-use skill' which consist of the *following* components:

- Familiarity with and ability to use the information retrieval tools like the OPAC, CD-ROM, E-mail, and Internet.
- Familiarity with and ability to use reference tools like bibliographies, dictionaries, abstracts and indexes to periodicals.
- Familiarity and ability to use information services like photocopying, reference desk, Special Collections, Short Loan Collection, Interlibrary Loan, and bound periodical collection.

1.7.2 Dependent variable

The dependent variable was identified as students' information-seeking patterns. The dependent variable focuses on the information-seeking habits of students when faced with independent academic activities such as assignments, preparation of papers for class presentation and discussion and research projects.

1.8 Assumptions

This study was based on the following assumptions:

1. If students are not aware of the information resources and services available to them, it could be assumed that they miss out on some services that could be addressing their information needs.
2. If it is true that students lack information retrieval skills then it could be argued that lack of such skills could lead to non-use of the information resources and services.

1. 9 Scope and limitations

This study was carried out at the University of Zambia and involved sampling students, academic faculty, and library staff at the two campuses, Great East Road Campus and Ridgeway Campus.

Due to lack of financial resources and time constraints it was not possible for the researcher to conduct personal observation of user education in other higher institutions for comparative study. Owing to the same reasons it was not possible for the researcher to survey distance education students. However, in spite of these limitations the researcher is fully convinced that the results of this study will be valid to the University.

1.10 Significance of the study

The study hopes to raise the awareness of the importance of user education among librarians so that appropriate library facilities and services are provided. It is also hoped that the findings of this study will be used to design an effective program of user education at UNZA. This may in turn generate more issues for further research in the area of user education. Ultimately, it is hoped that library users will find this study useful as it is hoped to lead to provision of better library services.

The study hopes to raise awareness of a need to include user education in the curricula at the Department of Library and Information Studies at the UNZA and other universities in Sub-Saharan Africa. The study also hopes to raise awareness of the need to conduct workshops, seminars, in-service training, etc., on user education by library associations at national and regional levels in Sub-Saharan Africa.

This study claims uniqueness in that its coverage of variables in respect of user education-within one research design, is perhaps more comprehensive than any similar study reflected in the literature survey so far carried out. In contrast to the experience of this study, the literature survey appeared to prove that, the majority of the user education

researches undertaken so far have tended to focus on the library users only, or academic faculty only, or librarians only. This study covered all these stakeholders.

CHAPER 2 *LITERATURE REVIEW*

When I hear I forget.

When I see I remember

When I do I know.

-Old Chinese proverb

2.1 Introduction

This chapter provides an insight into studies that have been carried out by various authors. The chapter is divided into four sections. The first section reviews some of the previous researches done on user education in academic institutions as well as some literature on user education in general. The second section deals with literature on information technology and its implications for user education. The third looks at the various instructional levels and curricular arrangements of user education. The fourth looks at faculty perceptions of the library and their impact on user education. The fifth section briefly looks at the factors that influence the success or failure of a user education program. The sixth section examines the various methodologies used in the studies reviewed. The findings of these studies constitute the rationale for carrying out this study.

A wide range of books and periodicals dealing with user education concepts and theories were reviewed. This literature review allowed the researcher to understand better the research problem in terms of historical background, theoretical framework, current research developments and trends in user education. References and bibliographies found in some articles and books led to further discoveries of materials to read. The CD-ROM abstracting services searched were: **Library and Information Science Abstracts (LISA)**, **Educational Resources Information Centre (ERIC)**, and **Information Science Abstracts (ISA)**. Another source consulted was Lockwood, D.L. (1979). **Library Instruction: A bibliography**. "Westport, Conn.: Greenwood Press". Valuable

articles from Internet were downloaded, especially from the **IFLA Round Table** [Available from [http:// diogenes.baylor.edu/Library/LIRT/](http://diogenes.baylor.edu/Library/LIRT/)] [Accessed 28 April 2000].

2.2 User education in academic libraries

Robertson (1992) points out that in the past higher education placed great emphasis upon facts from prescribed reading lists. Consequently, students often had no real incentive to learn about the library and many left the college and university with no appreciation of how to locate, evaluate, generate or disseminate information. They instead assumed that the library was no more than a book depository. It is the essence of contemporary higher education that it introduces students to a world of intellectual responsibility and intellectual discovery in which they are to play a part. Students need from the beginning to be made aware of the scope of their subjects and to realize that they are “not being presented with a mass of information, but initiated into the realm of free inquiry.”

Tiefel (1995) observes that educationists are advocating for a broader approach in education, one that recognizes that today's graduates must function in one world. They must have an international perspective and approach because our world has undergone immense transformation. For example, an undergraduate program should motivate students to learn and to do so effectively and independently. Students need to acquire skills, fundamental ideas and concepts, and a broad range of knowledge. They should learn to think critically and integratively and to be prepared to continue educating themselves for their entire lives.

The purpose of higher education, then, is not to teach students all they will ever need to know, but to equip them to cope with change. Consequently, a large part of higher education is the process of learning how to learn, and, integral to this, the ability to find and evaluate information. This requires instruction.

In 1791 Samuel Johnson said, “knowledge is of two kinds, we know a subject ourselves, or we know where we can find information upon it.” The importance of the latter ability is significantly increased in today's information society. In the world of unlimited

information, to know must include the intellectual skills necessary to find, screen, analyze, and synthesize information. Librarians in academic libraries have an important role to play in working to ensure that information literacy is a reality.

Fjallbrant and Stevenson (1978) argue that to know how to use a library is an essential part of the education for-life process to prepare the student for the continuing process of self-education once the formal process has been completed. The role of user education is to make the user aware of the information resources available, both directly in the library and from external sources. Another goal is to enable the user to enjoy the search for information. The ability to find information is part of the educational process. The changing patterns of academic courses which require librarians to become involved in meeting students' needs has compelled librarians to seriously consider introducing user education. As courses become more and more interdisciplinary, the student is faced with a wider variety of possibly useful sources. Often the student is expected to prepare a dissertation, long essay or laboratory report that requires him/her to make full use of available sources of information. The advice and references given by the tutors are often inadequate when the student attempts to find relevant materials in the library.

At its most basic level, such library instruction should aim to help students locate materials for particular assignments, but, more broadly, user education aims at developing students' ability to manipulate library resources for whatever need. It aims at providing a variety of instruction, education and exploration so as to develop in students the skills required to make effective, efficient and independent use of the information sources, resources and services available.

Clarke et al (1981) points out that instruction of students in the use of libraries is now regarded by most academic librarians as of major importance. Some of the reasons for this are: the number of students enrolled in higher education has grown enormously; the number of institutions themselves has grown and diversified; the size of libraries in these institutions has increased, as has their complexity, with the development of new bibliographic tools; new teaching methods are continuously being adopted, which place

the onus upon the students to find, evaluate, and use information for themselves. Consequently, librarians now see their primary role as maximizing the use and effectiveness of their collections, rather than acting as custodians.

The amount of information available has grown, and is growing almost out of control, with no reason to assume that the rate of growth will decrease. This information explosion is reflected in the increasing size and complexity of academic libraries and the parallel increase in the number and type of bibliographies, abstracting and indexing services, and electronic information retrieval services. This has resulted into a greater than ever need for effective user education for students.

The format of information is also changing. As a result of the impact of technology, libraries now offer students access to considerable resources via, e.g., CD-ROM, computer-aided learning packages, interactive video, teletext and online services. Moreover, methods of accessing information in these new formats change by the year. Therefore, as professionals of tomorrow, today's students need an up-to-date knowledge of how to harness and exploit information in all its different forms. It is, therefore, the principles behind such methods which have to be learned by students. A thorough understanding of principles such as Boolean search is now becoming as important as a firm grasp of the alphabet to the student who wants to access all types of information.

Fjallbrant (1990b), Yaacob and Harun (1996) have pointed out that the increase in both media and methods has resulted in an even greater need to teach the users of scientific, technical and biomedical systems basic concepts of their information systems and to provide training in information skills. The use of information technology becomes an increasingly important part of daily life; users have to be educated so that optimum use and advantage of the facilities is ensured. Outreach programs are needed to market the systems, and to teach the formulation of simple and complex Boolean search strategies. Similar instruction is also needed for the use of other information technology applications, such as CD-ROM, microforms, etc.

Information technology is changing our environment at an ever-increasing rate. While such technology provides improved opportunities for accessing information, realizing these opportunities requires knowledge and skills that are not easily acquired and are even more difficult to keep up to date (Ford, 1994). There is therefore a shift from just user education to information literacy. Emphasis is shifting from equipping users with library skills to access information to equipping users with the ability to know when information is needed, locate, evaluate and use effectively the needed information. Without information literacy there will be barriers to access to information, especially in scientific and technical areas. Information literacy is a means of personal and national empowerment in today's information rich environment. It allows people to verify or refute expert opinion and to become independent seekers of truth. It provides them with the ability to build their own arguments and to experience the excitement of the search for knowledge (Ford, 1994).

Harvey, Moon, Geall, and Bower (1997) observed that Library and Information Skills provide the conceptual and technical capacities to make effective use of traditional and electronic information resources, and in an information-led society they increasingly form an essential part of the learning process at undergraduate levels. These transferable skills empower students to learn independently, to solve problems and to explore unfamiliar subject areas-capabilities which they need beyond university in the workplace. The Library, as a provider of an information and technology-rich environment, is an appropriate agency to inculcate these skills, working in partnership with academic faculty.

Edem and Lawal (1996) also affirm that user education has become much more important due to the exponential growth of published materials both in a student's chosen field and other fields. The growth in published materials particularly in the sciences, technology and medicine requires that scattered information in various formats be properly disseminated through user instruction. Consequently, it has become difficult for a fresh student to walk into the university library and retrieve information materials accurately without initial but profound guidance to use of the literature.

Meer et al (1996) noted the following trend in academic libraries:

- An increasing use of digital electronic systems in library and scholarly information organization;
- Movement towards networked information systems;
- A shift away from owning resources and towards access of shared resources;
- A shift towards making information available in multiple format both graphic and digital;
- An increase in collaborative work in using information technology for intellectual research and problem-solving.

It is also argued that if librarians are responsible for a library's collection, they are also in some measure responsible for ensuring that users have the knowledge to utilize collections successfully (Foster, 1981). Furthermore, active involvement in library education on campus would increase the status of librarians because their concerns about effective use of the collection would be obvious and the important role they are playing in the transfer of knowledge would be demonstrated. Such involvement would correct the image from which academic librarians suffer-that they are collection builders and maintainers, not interpreters of the collection. User education would help librarians justify their existence and overcome the threats of zero growth rate for collections. Asserting our knowledge of the process by which information is transferred through programs of user education will create and make manifest the legitimate and irreplaceable academic role the librarian can play in higher education (Foster, 1981). It will also reflect the importance of the librarian as a master link in the chain of knowledge in institutions of higher education.

User education thus satisfies a need for a more visible personal identity among librarians. Previously many librarians may have been isolated from their users, obsessed with organization, storage, cataloguing and classification, and, due to the lack of communication with users, the resultant image of the librarian was one of a "harmless eccentric" (Harris, 1981). However, if developed properly, user education programs

promote a positive relationship between the librarian and the student, improving the image of both the library and the librarian, and encouraging students to exploit fully the information available to them. These programs also provide a sense of self-preservation for library staff. As the importance of library and instruction in its use is finally recognized by academic institutions as vital to educational development, the library is far lower down the list for cutbacks in times of financial constraint (Dyson, 1978).

Robertson (1992) in her research on overseas students in Scotland Universities observes that the instruction of students, foreign or otherwise, in the use of libraries and information is now regarded by most academic librarians as being of major importance. She also reports that many students, especially foreign students, find libraries intimidating and therefore a library tour is a comfortable way to have the actual physical and psychological experience of being in the library building for the first time. Robertson (1992) further noted that though some home students may not need to be taught basic information as how to borrow a book, this assumption can not safely be made for overseas students. Several students were found to be unaware of how to register as borrowers and some were even unaware of the fact that books could be borrowed at all. Some libraries were found to be unaware of the problems faced by foreign students and were not offering any user education to these students. Foreign students were unable to use library tools effectively and were frequently unaware of the existence of such tools. As a result these students faced numerous problems. Overseas students were also handicapped by a lack of awareness about the problems they faced. The student's perception of the library was often a result of his background and cultural environment in which he was brought up. Robertson therefore points out that until these variations in behavior and attitude are accepted and anticipated by librarians, foreign students will continue to face unnecessary difficulties. The attitude of library staff was found to be a major stumbling block for foreign students as most staff were unaware of the problems and up to 40% were unconcerned.

Zondi (1992) carried out a study at the University of Zululand to discover if any link could be found between first-year students' level of competence in the use of the library

and the resources they used in the completion of independent academic tasks such as writing assignments. This study found no relationship between the variables under investigation but noted that the majority of the students showed a very low level of competence in the use of a library and in addition displayed poor information-seeking patterns. Factors such as the teaching strategies employed at the University of Zululand and an inadequate user-education program were advanced as contributing to students' poor information-seeking patterns and lack of competence in the use of the library. The study found that information retrieval tools such as the subject catalog, reference tools and periodical indexes were rarely used in the location of information necessary for the completion of independent academic tasks such as assignments. Furthermore, the majority of the students never or rarely engaged in independent activities that required the use of the library. Students appeared dependent on prepared lecture notes, academic faculty' reading lists and works in the Reserve collection. The implication of this finding was that the teaching methods did not adequately encourage independent learning.

Zondi also reports that no difference could be found in the level of library-use skills between students who had access to school libraries and those who never had. An explanation that was advanced for this result was that, even though the majority of students (88%) in this research reported to have had had access to libraries during their school and post-school years, the nature of libraries and the extent to which they had been used could not be determined. It is unlikely that school libraries, for instance, could have been used to complete projects, since previous surveys have shown that in most schools with library collections, library periods are not provided in the classroom timetable. If the library period is not provided, opportunities for pupils of using the library are very limited. However, it must be noted that the failure of this study to find a correlation directly impacts on the teaching of library-use skills.

Raseroka (1993) reports that school systems from which university students emerge have experienced their own pressures. Libraries and supplementary reading materials are increasingly seen as a luxury. As a result, school learning systems rely on school textbooks and teacher's notes. There are generally no school librarians. Where there are

teacher librarians they are torn between teaching loads, library technical services and, the on-going struggle of promoting the library beyond the general perception of it as the school study room. Very little, if any, library orientation and user education is given to students under these circumstances. She further points out that the pressing challenge facing university libraries therefore is linked to their primary role of providing services which promote and facilitate effective use of recorded information in all formats by all of the library's clientele.

Given the learning systems from which students emerge, the primary role of the university library is to help the students adopt the university teaching style and learning systems which emphasize the following: note taking, identification of and searching for supplementary materials, incorporation of information at hand, and acknowledgement of all sources of information. Raseroka (1993) also observed that the few user education programs that were offered in most African universities mainly consisted of lectures, guided tours and demonstrations. User education in computerized information retrieval was lacking. Most offered library orientation alone, within a limited time, which was insufficient. She further observed that there was a need for program of continuing library instruction that is linked to student coursework and assignments. However, Raseroka (1993) notes that such a program could not succeed unless librarians and faculty form a coalition with the goal of promoting short-term success as reflected in graduation and long-term gains in the establishment of a culture of systematic information seeking and utilization.

Fidzani (1995) conducted a survey to examine user education programs in nineteen academic libraries in Southern Africa. The survey focused on the planning, organization and implementation of these programs. It also highlighted problems and barriers of user education in various academic libraries. The paper further examined the influence of information technology on user education. It looked at how users were introduced to OPACs, CD-ROMs, and Internet where available. Finally, the paper explored the possibilities of cooperation in the implementation of user education in academic libraries in the region. She reports that 32% of the libraries did not have a policy on user

education, and 22% did not have a formal user education program. User education was not compulsory in most institutions. Other problems noted include inadequate numbers of professional staff to conduct user education training, limited time allocated for the program and lack of support from the teaching staff. It was also noted that though library orientation was carried out in all libraries studied, other forms of library instruction did not have a well-defined schedule. It was further observed that the teaching of information skills in these institutions was dependent on the cooperation between the teaching departments and the library departments. Library instruction was found to be more effective when it was continuous and linked to student course work and assignments. About 50% of the libraries studied did not get full participation of all faculties in library instruction. Some users were therefore deprived of a chance to benefit from the library instruction.

Fidzani (1998) carried out another survey to investigate the capabilities of graduate students to effectively use library resources and services available to them at the University of Botswana Library. The results were that many graduate students did not have adequate training in the use of the library and were not aware of the services it provided. She also points out that in many developing countries like Botswana, ensuring use of library resources and services poses a bigger challenge because in some cases, scholars only came into real contact with a reasonable library when they entered university. It was observed that most of the students who were good in the use of library resources were those who had had lessons in how to use the library at undergraduate level. It was therefore found that students needed instruction in the use of library resources and services to be able to use them more effectively and efficiently. About 93% of the respondents in the Botswana study strongly agreed with the statement that for more effective and efficient use of the library graduate students needed instruction on how to use information sources in their subject areas. Guidance in the use of library resources and services has even become more important with the increasing use of information technologies like CD- ROMs, OPACs, and Internet as most of these students had not been exposed to their use at undergraduate level. It was also observed that library staff assumed that all graduate students were familiar with the library. It was further observed

that science graduate students needed user education most. Lack of awareness of the services available, such as Interlibrary Lending, was discovered to be the biggest obstacle to obtaining access to information. In some cases respondents were misinformed about the operations of some services.

However, though the study established the ability of graduate students to use information resources, it did not attempt to find out whether or not there was any relationship between the students' ability to use library services and resources and their performance in their studies. Fidzani, acknowledges that follow-up studies on the impact of instruction in the use of library resources and services on students' academic performance in their studies could usefully be carried out as a basis for further improvement of services to meet graduate students' information needs.

Ishola (1980), Aguolu (1983) and Osiobe (1988) have also observed a lack of effective user education programs, which affect the use of resources in Nigerian University libraries. They report that most students in Nigerian universities have never used any type of library before entering the university; some of them have never even seen a library. Yet to be able to undergo a meaningful undergraduate education, they must learn how to exploit the resources of the university library. In his study of the information seeking behavior of undergraduate students at the University of Port Harcourt, Nigeria, Osiobe observed that poor use of abstracts and indexes by undergraduate students demands that effort be made to integrate instruction on the use of information and library resources in some compulsory undergraduate course. Lack of knowledge in this area is therefore a barrier to information access.

Alemna (1982) argues that the under-utilization of library holdings and facilities may therefore be due as much to the fact that users are unaware of the facilities offered by the libraries, as to the fact that libraries do not have a precise knowledge of user needs. Faced with these problems, the readers need assistance and guidance if they are to get what they need at the time they need it. Teaching the users the most effective and efficient way of using the library and the literature can do this. It is therefore important that academic

libraries must equip their users with these skills so as to make maximum use of the available information resources locally, regionally and worldwide.

2.3 Information technology: Implications for user education

In 1973 Lancaster pointed out that: "a critical factor affecting the success or failure of an online information retrieval system is the effectiveness of the procedures employed to teach people how to use the facilities." Fjallbrant and Malley (1984) also report that up to 1980, online education was primarily directed towards intermediaries, but in recent years an increasing amount of attention is being devoted to teaching end-users how to carry out online searching.

Fjallbrant and Malley (1984) report that during the last twenty years there has been a rapid growth in availability of computer-based online information retrieval systems. Databases are being produced by organizations such as American Psychological Associations (Psychological abstracts), and the United States National Library of Medicine (Index Medicus). These databases are now widely accessible for information searching from local stations that are linked to the central computer store via a telecommunication network. Therefore, use that will be made of the online information retrieval systems depends in part on the education of users about the availability and functioning of this method of information retrieval. Consequently, growth in computer-based online information retrieval has been accompanied by an ever increasing number of promotion, training and education courses by information providers.

Keenan (1977; 1980) carried out a survey of online educational and training programs, organized by database producers, systems operators and academic institutions, in 1976 and 1977, for the Commission of the European Economic Community. This study was updated and extended to include the United States and Canada in 1978. Keenan concludes that there is a great need for rationalization and cooperation between the systems, services and producers to determine the responsibility for promotion, training and educational requirement for effective use of online services. Orientation and instructional programs must be conducted to make users:

- Be aware of the existence of computer-based online methods for information retrieval;
- Have some knowledge of the type of information available-for example, bibliographic information, factual information, etc.;
- Be aware of the relationship between computer-based and manual methods of *information retrieval*;
- Be aware of a place, or places, where online searches can be carried out; and
- Have the ability to understand the general principles on how to carry out an online information search.

Fjallbrant (1996) reports on a study on the Scientific, Technical and Medical Information System (STM) in the United Kingdom which was carried out by the Royal Society, the British Library and the Association of Learned and Professional Society of Publishers (ALPSP) in 1993. What emerged from the Report was that a large number of users (comprising scientists and engineers) were unaware of many of the new tools and methods of information retrieval. It was found that users preferred the use of familiar and well-established information resources and that the newer technologies tended to be avoided. In principle, users were willing to explore the use of novel services, but, in practice, they continued to use the familiar material and methods. The Report made a number of recommendations, including the following:

- ◆ Scientific researchers should become more aware of the nature and problems of the STM system, and take greater responsibility for its health and effectiveness.
- ◆ In view of the widespread ignorance of the availability of the new library research tools, libraries in academic and research institutions should routinely provide training for users and information providers in information access.

Since then a number of academic libraries have seen the need to provide this formal training. Fjallbrant (1996) further reports that during the 1970s and 1980s, many academic libraries in the United Kingdom, the United States, Scandinavia and Australia started fairly ambitious programs of user education, bibliographic instruction, or reader

education. Under the latter part of the 1980s there was a feeling that the use of expert systems and computer-based tools would reduce the need for this kind of education and training, but the increase in complexity of both media and methods of information retrieval has resulted in an even greater need to teach the users of scientific, technical and biomedical systems basic concepts about their information systems and to provide training in information skills. She further observes that well-known universities like Berkeley and Massachusetts Institute of Technology have started to emphasize the teaching role of the university library. However, she notes that many academic libraries have not been able to start the types of formal training suggested in the Royal Society Report partly due to lack of economic resources and partly due to inertia or inability to change direction and divert resources from one function to another.

In developed countries a number of researchers have investigated the problems associated with the use of OPACs. Andrews (1991) reports on a study in 1989 at the then Manchester Polytechnic Library where some students who had no computer experience had problems using the OPAC and consequently were nervous, and a few of them noted that they were nostalgic for the “old card catalogue”.

Steele and Stewart (1998) in their survey carried out at the University of Aberdeen reported that considerable consensus was found concerning:

- a) the need for Library and Information Skills (LIS) integration within subject courses;
- b) an urgent requirement for increased student hands-on retrieval experience; and
- c) recognition of the asset represented by LIS competence in the search for employment after graduation.

The impetus for the inquiry was provided by changing learner profiles, occasioned by an increase in student numbers by over 70% since 1990, the move towards self-directed learning prevalent in Higher Education and the increasing prevalence of newer technology applications for information retrieval.

Fidzani (1998) observes that there is no doubt that the information environment in libraries is changing in Southern Africa. Libraries are either automated or are in the process of being automated. This new information technology in libraries poses a considerable challenge for librarians. This has increased the responsibility of teaching users new information skills as most of them have little or no knowledge of computers. Fidzani reports that 64% of the libraries studied had CD-ROM, OPAC and Internet links. However, it was observed that CD-ROM instruction was not compulsory; none of the libraries studied included instruction on the use of the Internet in their user education programs. There is therefore a growing need to support users through training in order to enable them to effectively exploit online resources. Libraries should not only see themselves as users of Internet but also as providers of information from Internet. Fidzani argues that instruction in the use of the OPAC forms a basic step in the learning to search computerized databases.

Raseroka (1993) in her research reports that university libraries in the Eastern and Southern Africa regions did not offer user education in computerized information retrieval. She noted that library orientation, alone and as one of the main vehicles for supporting students' assimilation of a different learning system and understanding of the organization of information in large collection and within limited time, is important but insufficient. The introduction of technology into libraries creates a unique opportunity for teaching library skills and methods of accessing data on, for example, CD-ROM technology. The latter demands training not only for users but also for library staff. The establishment of regularly conducted training programs must be seen as a vehicle for the development and maintenance of a learning system most suited to academe and creativity. There is a need for a program of continuing library instruction which is linked to student coursework and assignment.

The introduction of library automation has made it imperative that librarians should educate their users on how to retrieve information using the new systems. Ford (1994) argues that in this data rich environment, information consumers must learn to overcome information anxiety and to sift through the information chaos to digest, interpret, and

utilize information for sensible decision making. He further argues that changes in formats and organization of information mean that users need guidance, especially as they may have unrealistic expectations. Furthermore, it is being discovered that these new tools and sources are clearly not supplanting the need for user education; instead, increased and more sophisticated instruction is required (Kenny, 1987). These new sources cannot be expected to decrease the questions and problems of library users. Much of the same ineptness that users display as they encounter the traditional card catalogue and printed indexes will be duplicated as they approach computer-generated or computer-managed systems.

Considering the various literature reviewed above, it is therefore manifestly important to take steps which will improve the information consciousness of users and their ability to make the best use of available resources. This can be achieved if the users are educated in the proper use of libraries/information.

2.4 Levels of User Education

User education is offered in a variety of instructional levels and curriculum arrangements. Four levels of instruction may be identified: library orientation, basic instruction, course-related instruction, and credit courses (Fox, 1979). Library orientation is the most elementary form of user education. It usually consists of a brief introduction to the library facilities and resources. It is intended to provide the user with an awareness of the physical location of essential areas and resources, the services offered and staff of the library, and basic procedures in using the library (University of Texas at Austin, 1977). Orientation is also intended to make the user more relaxed and comfortable about using the library. Orientation sessions may be conducted by library staff as guided tours or completed as self-guided tours.

Basic instruction, usually 1 or 2 hours in duration, is often presented in conjunction with freshmen English courses. Many variations of this commonly used approach are reported in literature. Colorado University employs a library-use exercise which all freshmen

students must complete (Hacker and Rustein, 1978). Diagnostic testing, self-learning modules, and immediate feedback are features of the individualized program used by Tarrant County Junior College (Lolley, 1978). The provision of library instruction to large numbers of first-year students requires extensive cooperation from teaching staff, a motivational context to ensure that instruction is related to curricular requirements, and imaginative materials (Young, 1980).

Advanced library instruction may range from several hours in duration to an entire semester of library instruction germane to a particular course of discipline. A librarian, a faculty member, or both may teach it. This form of instruction was the focus of Patricia Knapp's experimental library project at Monteith College during 1959-1962, and Earlham College's continuing program of course-integrated instruction (Kennedy, 1970; Knapp, 1964). Close faculty-librarian cooperation and sequenced, course-related assignments were the major components of the Monteith project. Earlham College adopted the Monteith scheme, modified it to suit local needs, and currently offers intensive, course-related instruction throughout much of the curriculum (Young, 1980).

Separate credit courses in user education are becoming more prevalent. The most frequent references to credit courses are to the introductory courses in library skills, often labeled "library studies", "introduction to the library", or "introduction to research" (Renford and Hendrickson, 1980). Sometimes these are compulsory courses, and sometimes elective. They may be scheduled over an entire semester or spread out over several weeks. They are usually taught by librarians, but are sometimes sponsored by another department or program.

Formal, group instruction is often supplemented by informal or individualized approaches. Point-of-use instructional presentations, designed for patron self-learning, are located near the bibliographic source or service that is explained. A variety of media, including audiotapes, printed guides, slides, and signage, is utilized. Olevnik (1978) observes that evaluation of the relevance and effectiveness of these presentations is being

neglected. Group instruction often does not meet the needs of individual students, and other approaches may be required (Young, 1980).

2.5 Faculty perceptions of the library and their impact on user education

Many authors discuss the importance of making connections with the academic teaching faculty in designing and marketing user education programs. Faculty hold a great deal of the political power within most institutions of higher education, and they also influence library usage among students through the assignment of papers and projects.

Haynes (1996) observes that although librarians share an important part of the responsibility of guiding student research, they do not often have the opportunity of determining its direction. It is primarily the function of the teaching faculty to decide whether and to what extent their students use the library for information research. The educational philosophy and teaching style of the faculty, who manage the course of their students' education and determine its rewards, are much more powerful influences on students' research behavior than librarians' efforts to motivate.

Numerous studies conducted by librarians bear witness to the above assumption. Despite the desire and efforts of librarians to exert a stronger influence on students, results remain constant (Haynes, 1996). Allen (1970) reports that the most notable factor influencing undergraduate student utilization of the library has been found to be the attitude of individual instructors. McInnis (1978) observes that more than any factor, the value the classroom instructor attaches to library research determines the students' interest in use of library materials. Instructors give direction and motivation to students as to how library materials are to be used in meeting course requirements. Consequently, most students will use library materials in their courses only if professors require them. Not surprisingly many students do not use the library as a primary information resource (Baker, 1989). Therefore, it is important to establish a tripartite relationship between students, faculty, and librarians in developing bibliographic instruction. The library staff must be able to persuade the faculty that a well-educated individual needs to possess an understanding of

the structure and value of knowledge. This is done by integrating bibliographic instruction into the research process and demonstrating the effectiveness of that instruction. Baker (1989) gives suggestions for improving communication and building closer ties between faculty and librarians, including personal contact with faculty, faculty orientation sessions, library liaisons, and service of librarians on academic departmental committees.

In 1980, Gwinn (1980) reviewed programs of the National Endowment for the Humanities and the Council on Library Resources whose purpose was to enhance the library's educational role in colleges and universities. She found librarians' difficulties with faculty members frequently mentioned among the largest problems in establishing programs. The difficulties included: 1) poor cooperation from faculty, 2) faculty and administrative turnover, and 3) lack of adequate planning input from faculty. She concluded with the understatement that bibliographic instruction programs in general, have not caused a major revolution among the American teaching faculty. Whitlatch (1983) also further concluded that in the United States, the tradition in faculty teaching does not involve extensive use of the library nor encourage students to use the library to formulate research topics or independent inquiries.

Raseroka (1993) also makes similar observations in her paper entitled: The role and purpose of the university library in a rapidly changing information environment with reference to the Eastern and Southern African Region. She argues that user education programs may not be successful unless librarians and faculty form a coalition with the goal of promoting short-term successes as reflected in graduation and long-term gains in the establishment of a culture of systematic information seeking and utilization. She further argues that problems facing librarians are related to the difficulty in opening communication channels with faculty. Librarians need to work at understanding those problems of faculty that could be minimized by library user education. This facilitates strategic planning which involves faculty and senate for appropriate course-related user programs and gains institutional support both in principle and financially.

In conclusion, there is no doubt among user education librarians that for user education programs to be successful, librarians need the cooperation and support of faculty (Hardesty, 1995). Faculty should be made to realize that although their need to use the library for their own research and information gathering is conditioned by the other information networks available to them, their students do not usually have access to these alternative sources. For the students, the library remains their most important information source, next to the faculty themselves. Faculty who neglect insuring that their students develop adequate research skills may be depriving them of an important part of their education. They may also handicap their students' ability to pursue lifelong learning required in an occupationally mobile, information-dominated society (Haynes, 1996).

2.6 The attributes of an effective user education program

A study of the literature has revealed the following as some of the major factors that influence the implementation of a user education program in a university:

- An educational climate which encourages, even demands, library use (Kennedy, 1970). A curriculum that includes a variety of seminars, tutorials and independent study programs. The way in which a student uses library resources is very much dependent upon the academic faculty' attitudes towards the library and upon methods of instruction. Students see the importance of the library if faculty give them assignments and readings that utilize the library (Knapp, 1956). Unless faculty members consider the use of the library an important element in education, students will not (Kennedy, 1970). Therefore, any attempt to introduce a program of education in library use must have faculty backing (Bechtel, 1971). Patricia Knapp's (1966) experience at Monteith College was that this backing must be more than mere assent to the fact that this kind of education is necessary or even agreement to include a library project in a particular course. She reports that although faculty members had agreed to the inclusion of a particular library project in a course, some either left it out altogether or presented it in such a way that students knew that it was not considered important by the professor and, consequently, did not take it seriously.

- A good rapport between librarians and teaching faculty. Such cooperation is essential for several reasons-the lecturer must be willing to give up class time and collaborate in the development of course assignments that include a library component. In order to reach students through user education, librarians must actively pursue a delicate balance involving interaction and cooperation among faculty as course planners, librarians as facilitators of research objectives, and students as learners. The tenuousness of this interplay may be illustrated by using a model of an equilateral triangle, which includes librarians, faculty, and students, all equally participating in the education process (Baker, 1989). Gentil (1999) argues that the role of the librarian must be an assertive one, for example, attending committee meetings, and planning sessions and actively selling the necessity of instruction by stressing the positive paybacks which will benefit all in the long term. The cooperation of teaching staff in pooling knowledge, arriving at decisions on content and timing of instruction, as well as ensuring that references given are accurate is all vital if instruction is to be relevant (Mayfield, 1985; Radford, 1980; Tiefel, 1995; Zondi, 1992). Without this cooperation and focus students may well find themselves deluged with as much relevant and irrelevant information on the subject as the librarian can find (Gentil, 1999). There is also need to collaborate with technical services, library paraprofessional and computer centre staff.
- Another crucial factor for effective user education is student motivation. User education must be tailored to meet the needs of students in their specific fields of study. All education in the use of the library must be intimately tied to the subject content of a particular course. Bechtel (1971) observes that library education is not an end in itself and so it must not be taught as if it were so. Thus separate courses offered in-library at the undergraduate level aimed toward increasing students' efficient use of the library are educationally unsound. The card catalog, subject lists, indexes, bibliographies, reviews and abstracts are merely tools, however powerful, for getting at the information recorded, the content of a field. Bechtel suspects that some academic faculty's hesitance to include librarians or education of the library into curriculum consideration is their fear that methods may eventually gain the status of content, an event antithetical to liberal arts education.

- Timing is another important issue. A short explanation of library use during freshman orientation is inadequate. Students, however serious they are, will forget whatever has been presented to them in the way of library instruction unless it is presented at the time when they need it and must use it. Education in library use presented at the *beginning of a research project assigned by a professor in a course is likely to be most effective*. Immediate use of new knowledge and skills is educationally sound reinforcement in learning (Bechtel, 1971).
- The degree of commitment of the university library administration is a potent factor in the success or failure of any user education program. For the program to succeed the library administration must be fully committed to it, which is rarely the case in most universities. This commitment consists of allocating sufficient subject specialists or competent professional librarians who are willing and enthusiastic to participate in the program and also allocation of adequate financial resources.
- Finally, an effective user education program evolves continually. The teaching of library skills must be graded to a student's needs and abilities throughout her/his four years in college and this education must not be repetitive (Kennedy, 1970; Knapp, 1966). Repetition kills the excitement of discovery and so is deadening to the motivation necessary for learning.

2.7 Methodologies used in the studies reviewed

Adams and Schvaneveldt (1985) simply define a research methodology as an application of scientific procedures towards acquiring answers to a wide variety of research questions. Different approaches use different methods for collecting data. Each method has peculiar strengths and weaknesses. Thus the importance of selecting appropriate research techniques has long been recognized as the underlying factor behind the success of any research project (Jorosi, 1989). However, Jorosi further observes that literature on research techniques on user studies is littered with lamentations on poverty of methodology. He reports that although most librarians and personnel involved in information studies have hitherto been aware of the value of user studies, they have not been fully conversant with the problem and techniques associated with such studies. Line (1977) observes that such studies are often indigestible mass of poorly interpreted data

collected from inadequate and badly chosen samples by means of unsuitable and unreliable methods and on the basis of an ill-chosen approach. Brittain (1977) states that from a methodological point, the field of user studies is weak. Herner and Herner (1977) contend that one of the causes of this state of affairs is the failure to profit from past mistakes and the failure to build from past gains.

Having recognized that each research method has its own strengths and weaknesses, most researchers are calling for a multi-method approach so as to profit from the advantages of different methods while at the same time counter individual weaknesses and biases inherent in a method used in isolation (Jorosi, 1989). Some of the methods suggested to constitute the core of the mix are participant observation, questionnaire and interview survey, and documents (secondary sources).

In the studies reviewed by the author, the researchers used the descriptive survey method. The surveys were cross-sectional, i.e., the researchers used questionnaires and/or interviews to collect data about the characteristics, experiences, knowledge, or opinions of a sample at one point in time and generalized the findings to the population. In most cases the questionnaires were designed to collect both quantitative and qualitative data. Studies by Keenan (1977; 1980), Zondi (1992), Raseroka (1993), Fidzani (1995; 1998), and Fjallbrant (1996) heavily relied on questionnaires to collect data.

The use of questionnaires in these studies was appropriate because they dealt with large sample sizes. Powell (1991) observes that, in comparison to the interview survey method, the questionnaire survey has the following strengths:

- Questionnaires tend to encourage frank answers. This is in large part due to the fact that it is easier for the researcher to guarantee anonymity for the respondent. In addition, the respondent can complete the questionnaire in the absence of the researcher, thus eliminating interview bias. Thus the questionnaire can be quite effective at measuring attitudes.
- The fixed format of the questionnaire eliminates variation in the questioning process and ensures consistency in the answering process.

- The manner in which the questionnaire is distributed and responded to allows it to be completed, within limits, at the leisure of the participants. This encourages well thought out, accurate answers.
- Questionnaires can be constructed so that quantitative data are relatively easy to collect and analyze.
- Questionnaires can facilitate the collection of large amounts of data in a relatively short period of time. Questionnaire-based surveys of several thousand people are not unusual, and responses typically are expected within one to two weeks.
- Questionnaires are usually relatively inexpensive to administer.

However, despite the above advantages, Best (1981) observes that the questionnaire survey method is the most criticized data collecting device. He further argues that well constructed questionnaires are not bad data collection instruments but poorly constructed questionnaires have created a certain amount of contempt. Powell (1991) identifies the following weaknesses of the questionnaire survey method:

- The questionnaire, especially the mail questionnaire, does not permit the respondent to qualify answers to ambiguous questions, or at least makes it more difficult. On the other hand, the more difficult it is for respondents to qualify answers, the more likely the researcher is to obtain consistent responses. Except in two cases, Fidzani (1998) and Robertson (1992), there is no indication of whether the questionnaires used in the studies were pre-tested and revised before being administered. This questions the validity and reliability of most of the questionnaires used in these studies.
- Studies have shown that persons who are highly opinionated regarding the subject of a questionnaire are more likely than others to be motivated enough to complete and return it. This phenomena tends to result in a biased sample or return, as the less opinionated members of the sample will be under-represented and may well have certain characteristics in common.
- Questionnaires may be more difficult for uneducated participants to complete, again possibly resulting in a biased return.

- In general, there simply seems to be a resistance to mail questionnaires. In extreme cases, this can result in some participants attempting to 'sabotage' a survey by purposively responding incorrectly to some questionnaire items.

A second survey method that was used in the literature reviewed is the interview survey. Gay (1992) defines an interview as the oral, in-person, administration of a questionnaire to each member of a sample. He identifies the following advantages in interviews: when well conducted, interviews can produce in-depth data not possible with questionnaires. Interviews are also flexible; the interviewer can adapt the situation to suit each subject. Furthermore, it is possible to clarify misunderstood questions. Finally, the interviewer can follow up on incomplete or unclear questions.

However, Gay notes the following weaknesses in the interview method: it is expensive and time consuming; it involves small samples as compared to a questionnaire; and it requires a level of skill usually beyond that of the beginning researcher.

Recognizing the disadvantages inherent in both the questionnaire and interview methods, Robertson (1992) combined the questionnaire and the interview survey methods to gather her data. She was able to use the interview method because the samples were relatively small.

Zondi (1992) used a quasi-experimental design referred to as *ex post facto* design to establish if there was any link between first-year students' level of competence in the use of the library and the resources they use in the completion of independent academic tasks such as writing assignments. Respondents were divided into two groups according to whether or not they used information tools such as the library's catalog, reference tools and periodical indexes to retrieve information relevant to their independent academic tasks. Group 1 (the experimental group) consisted of respondents who reported that they used the above mentioned information tools. Group 2 comprised respondents who reported that they never used the above mentioned information retrieval tools to gather information relevant to their academic tasks. The assumption was that those students who

reported that they used the defined information tools would display more competence in *their use than students who never made use of such information tools.*

The disadvantage with this kind of research is that it is very difficult to match subjects on enough variables to rule out other influences (Powell, 1991). The researcher has no control over events that have already taken place, and can never be certain of how many factors might have been involved. Therefore, Powell observes that ex post facto designs are considered to be weak.

Another inadequacy found in the methodologies of the literature surveyed is the incompleteness of most of the researches. With the exception of the University of Texas at Austin (1977), all the researches reviewed did not deal with all the stakeholders (i.e., academic faculty, students and librarians) involved in user education. Most dealt with only students and/or library staff. Consequently, incomplete information on the effectiveness of the said user education programs was collected. To avoid this pitfall the author intends to adopt the University of Texas' model to survey the opinions of faculty, students, and library staff opinion regarding the effectiveness of the current user education programs at UNZA Library.

Taking cognizance of the various views voiced by various researchers on methodology in user studies quoted above, this study will combine the following methods:

- Self-administered questionnaires-this shall constitute the main data-gathering tool. The questionnaires will be administered to a sample of respondents.
- Structured interviews with library personnel heading sections such as the Reference Desk, Reader Services, Special Collections, Serials Collection, and branch librarians.
- Documents-University Annual Reports, etc., which will be needed for background information.

2.8 Summary of the literature review

The majority (61%) of the publications in the latest Reference Services Review (1991) deal with user education in academic libraries. This is an indication of the importance of the topic in library and information science.

Effective instruction can result in users who are able to make intelligent, independent decisions about research and information. To be able to select, acquire and use information are fundamental skills that every student, indeed every citizen, should possess. User education is a means of personal and national empowerment in today's information rich environment. The technological revolution that is sweeping the world is creating a new public consciousness of information as a "consumer good" and the public in turn expects changes in the methods used by libraries to deliver the information. There is therefore a shift from equipping users with library skills to access information to equipping users with the ability to know when information is needed, locate, evaluate and use effectively the needed information.

Today's student is doing far more research earlier in his or her university career than did the students of two decades ago. Students are required to read and to prepare papers based on original research very early in their academic pursuits. Core collections no longer satisfy the curriculum for most university students today. Reading and reacting to current research is very much a part of undergraduate courses. This fact, combined with the realities of library anxiety in beginning researchers as described earlier, points to the need for early, systematic training in library skills. Without such training, either students do badly in research-oriented courses or the courses become watered down to meet the lack of skills found in the majority of students. The changing patterns of academic courses which require librarians to become involved in meeting students' needs has compelled librarians to seriously consider introducing user education. This has resulted into a greater than ever need for effective user education for students. Academic librarians no longer can be merely givers of information, but must provide instruction on

the retrieval and use of information. Consequently, there is a growing consensus among librarians for the need to integrate user education within subject courses.

User education is a relatively new concept in institutions of learning in less developed countries, particularly in African universities. In Southern Africa most academic libraries neither have a policy on user education nor a formal user education program. On the other hand there is a rapid introduction of information technology in libraries in this region. Therefore, the need to introduce user education in these libraries is even greater than elsewhere.

The pivotal importance of the instructor in stimulating or discouraging library use has been documented beyond doubt. For this reason, it is vital that user education programs involve faculty participation to the maximum possible extent, and that instruction be related to course objective and assignments.

Finally, there is a consensus among authors that the degree of the commitment of the university library administration is a potent factor in the success or failure of any user education program. For the program to succeed the library administration must be fully committed to it. This commitment consists in ensuring that there are sufficient qualified and enthusiastic librarians assigned to conduct user education programs, and sufficient funds allocated to user education programs.

CHAPTER 3

RESEARCH METHODOLOGY

"Research is to see what everybody else has seen and think what nobody has thought."

-Dr. Albert Szent-Cyoryi

3.0 Introduction

This chapter covers the following areas: research design, population of the study, sampling methods and procedures, administration of the questionnaires, research instruments and data collection, administration of the question, and data analysis.

Miller (1970) perceives the concept of 'methodology' as a body of knowledge that describes and analyses methods, indicating their resources and limitations, and relating their potentials to research advances. According to Nachmias and Nachmias (1982: 15), "methodology is a system of explicit rules and procedures upon which research is based and against which claims for knowledge are evaluated. This system is neither closed nor infallible. Rather, the rules and procedures are constantly improved, scientists look for new methods and techniques of observation, inference, generalization, and analysis. As these are developed and found congruent with the underlying assumptions of the scientific approach, they are incorporated into the system of rules that make the scientific methodology."

3.1 Research Design

The foregoing definition gives rise to a significant question relating to the precise nature of the concept of 'method' in the context of this study. While the above quotation indicates in general terms what the nature of this concept is, Adams and Schvaneveldt (1985) simply define a research methodology as the application of scientific procedures towards acquiring answers to a wide variety of research questions. Different approaches use different methods for collecting data. Some of the commonly used approaches are:

- i. Experimental method
- ii. Survey method

- iii. Historical method
- iv. Observation method

A survey method was chosen for this study. It involves the collection of data on a wide range of cases, each case being investigated only on a particular aspect under consideration (Powell, 1991). Isaac and Michael (1982:128) define survey method as “a means of gathering information that describes the nature of the extent of a specific set of data ranging from physical counts and frequencies to attitudes and opinions. This information in turn can be used to answer questions that have been raised, to solve problems that have been posed or observed, to assess needs and set goals to determine whether or not specific objectives have been met, to establish baselines against which future comparisons can be made to analyze trends across time, and generally, to describe what exists, in what amount, and in what context”. The key strength of the survey research is that, if properly done, it allows one to generalize from a smaller group to a larger group from which the subgroup has been selected (Powell, 1991). A survey method also saves time and money without sacrificing efficiency, accuracy and information adequacy in the research process. Furthermore, the study was cross-sectional. Data collection was gathered on subjects at one specific time. However, the data was collected from groups of people who represented different ages, time periods, and developmental stages.

The researcher used the following criteria to select the survey method:

- a) **Purpose of study**-which is the requirement for an MLIS degree, a short-term study befitting the method used.
- b) **Study objectives**-which is an assessment of user education programs in academic libraries: the case of the University of Zambia, befitting the research method applied.
- c) **Scope of study**-which is relatively large, covering a sample size of 595 out of a population of 4, 494.

- d) **Nature of units of analysis**-which are concrete entities-students, academic faculty, and library staff-capable of supplying both qualitative and quantitative data through the medium of the method-combination.
- e) **Literacy level of respondents**-which is high enough as implied by the concept of university student, lecturer, and library staff. This makes the application of this methodology to the study possible.
- f) **Method of data analysis**-which will involve the use of the statistical tests of chi-square which uses qualitative and quantitative data as could be yielded by the method-combination.
- g) **Time and financial constraints**-which will make it practically impossible for one person to use a time-consuming and more costly research methods such as the observational, experimental and historical method.

3.2 Population of the study

3.2.1 Identifying stakeholders

For purposes of this study, the researcher has defined a stakeholder as anyone who is involved in user education or who might be affected by or interested in the findings of this study. The composition of the stakeholders has influenced the choice of research design, the questions that should guide the evaluation, the interpretation of the results, and how the findings should be reported.

Three stakeholder groups were identified within the University community with regard to library user education. These are:

- Academic faculty (teaching staff)
- Students
- Library Staff

This list forms the population of the study. The total population from which the samples were drawn was 4, 494. Out of this 427 were academic faculty, 50 were library staff, 3, 935 were undergraduate students, and 82 were postgraduate students. Tables 3.1 through

3.4 below show the distribution of the academic faculty and students and their respective samples.

Table 3.1: Distribution of academic faculty, full-time undergraduates and postgraduates by school

| | Agri | Educ | Eng | Hs | Law | Med | Min | Ns | Vet | Total |
|----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-------|
| Academic faculty✧ | 35 | 64 | 43 | 98 | 12 | 310 | 173 | 81 | 30 | 427 |
| Undergraduates✦ | 216 | 1104 | 405 | 814 | 119 | 310 | 173 | 706 | 88 | 3935 |
| Postgraduates✧ | 15 | 16 | 6 | 21 | 10 | 3 | 3 | 8 | - | 82 |

Source: ✧UNZA Registrar's Office, 1999.

Source: ✦UNZA Registrar (Admissions) Office, Enrolment Summary for 1998 First Semester

Source: ✧Directorate of Graduate Studies, Enrolment Summary for 1998 First Semester

Students included only those who were studying full-time at the University of Zambia. Distance Education students were not included, as it was impossible to reach them due to time and financial constraints. It also included all academic faculty. Six library staff heading departments and branch libraries were surveyed as these were the ones who were usually given the responsibility of conducting user education programs.

3.3 Sampling method and procedure

The researcher used the stratified random sampling technique to determine samples from students and the academic faculty while purposive sampling was used to determine the sample from library staff. Lists of undergraduate students' names were obtained from the Registrar's (Admissions) Office and Directorate Graduate Studies for postgraduate students. Lists of names for academic faculty were obtained from the Registrar's (Administration) Office while a list of library staff was obtained from the Deputy Librarian's Office. With regard to students and academic faculty, all the population elements were divided into groups or categories and independent random samples were

drawn from each stratum. Both academic faculty and students were classified into categories according to their faculties. The results obtained were used to make inferences about the characteristics, opinions, beliefs and attitudes of the whole population that was studied.

Stratified sampling was chosen because it is a relatively easy sampling procedure. It is easier to sample from separate faculty lists than to combine all lists and take an overall random sample. Stratification also makes the samples more efficient where the strata are believed to be internally homogeneous (Carpenter and Vasu, 1978).

Tables 3.2-3.4 below show that there is considerable variation between the strata and some strata are so small that they risk the danger of barely being represented in the total sample. For this reason, the researcher decided to draw a disproportionate stratified sample. This allowed the researcher to draw a reasonable number of elements from each stratum regardless of its size. But to do so, it was found necessary to use different sampling fractions or to select different percentages of cases from the strata. This method provided enough cases per category to allow meaningful comparisons among categories. This also ensured more representative samples than might have been expected with simple or systematic random sampling.

The sampling fractions used to derive at the sub-samples were as follows: 15% for academic faculty (25% for the School of Law and 20% for the School of Mines); 2.5% for undergraduate students; and 25% for postgraduates. Since the number of professional librarians was small, all the six professional library staff directly involved in user education at the Main Library and the branch libraries were surveyed.

Table 3.2 Disproportionate stratified sample of academic faculty by school

| Strata/samples | Agr | Edu | Eng | Hss | Law | Med | Min | Ns | Vet |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pop. (N=427) | 35 | 64 | 43 | 98 | 12 | 48 | 21 | 81 | 30 |
| Sample (n=66) | 5 | 10 | 6 | 15 | 2 | 7 | 3 | 13 | 5 |
| Sam % | 15% | 15% | 15% | 15% | 25% | 15% | 20% | 15% | 15% |

Table 3.3 Disproportionate stratified sample of undergraduate students according to Schools and program of study

| School | Program of study | Pop. (N) | Sample (n) | Sample % |
|------------------|------------------|----------|------------|----------|
| Agriculture | BSC AG | 216 | 26 | 12 |
| Education | BAED | 642 | 64 | 10 |
| | BALIS | 81 | 16 | 20 |
| | BED(PR) | 63 | 13 | 20 |
| | BED(SP) | 60 | 12 | 20 |
| | BSCED | 217 | 26 | 12 |
| | CAE | 18 | 5 | 25 |
| | DAE | 23 | 6 | 25 |
| Engineering | BENG | 405 | 40 | 10 |
| Humanities | BA | 433 | 43 | 10 |
| | BANQS | 219 | 26 | 12 |
| | BMC | 73 | 15 | 20 |
| | BSW | 87 | 17 | 20 |
| | CRT DEM | 2 | 2 | 100 |
| Law | LLB | 117 | 23 | 20 |
| | CI LAW | 2 | 2 | 100 |
| Medicine | BSC HB | 49 | 10 | 20 |
| | MBCHB | 261 | 31 | 12 |
| Mining | BMIN SC | 173 | 21 | 12 |
| Natural Sciences | BSC | 250 | 30 | 12 |
| | BSC NQS | 406 | 41 | 10 |
| | BSC NRS | 50 | 10 | 20 |
| Veterinary | BVET MED | 88 | 18 | 20 |
| <i>TOTAL</i> | | 3935 | 497 | 12.6 |

Table 3.4 Disproportionate stratified sample of postgraduate students according to schools

| Strata/samples | Agri | Edu | Eng | Hss | Law | Med | Min | Ns | Vet |
|------------------|-------|-----|-----|-------|-----|-------|-------|-------|-----|
| Pop. (N=82) | 15 | 16 | 6 | 21 | 10 | 3 | 3 | 8 | - |
| Sample (n=26) | 4 | 4 | 3 | 5 | 3 | 2 | 2 | 3 | - |
| Sam% | 26.7% | 25% | 50% | 23.8% | 30% | 66.7% | 66.7% | 37.5% | |

Key to the tables

| | |
|---------------------------|-----------------------------------|
| N-Population | Eng-Engineering |
| n-Sample | Hss-Humanities and Social Science |
| Sam%-sampling rate | Med-Medicine |
| Min-Mines | Vet-Veterinary Sciences |
| Ns-Natural Sciences | Law-Law |
| Agr-Agricultural Sciences | Edu-Education |

3.4 Research instruments and Data collection

Questionnaires and interviews were used to collect data. Questionnaires were used to elicit the opinions, attitudes and perceptions of students and academic faculty as a means of assessing the effectiveness of user education programs to students. Two separate questionnaires of close and open-ended questions were designed, one for academic faculty (Appendix D), and the other for students (Appendix C). Areas of common ground were included so that differing points of view between the two groups could be compared. An interview schedule for library staff was designed to solicit for additional information (Appendix E).

The researcher found the questionnaire as a suitable instrument of data collection for this study for the following reasons: close-ended questions, whereby a respondent is asked

and required to answer by choosing between a number of alternatives, are easy to complete and to analyze. They provide a range of answers and thus reduce the chances of the respondents overlooking vital information and they reduce the possibility of obtaining ambiguous answers. Furthermore, close-ended questions help obtain fairly straightforward, uncomplicated information. They also provide anonymity. Since the questions are presented in a consistent format and style, there is little scope for bias to be introduced. The questionnaire is also impersonal and avoids problems of the respondent being influenced by the presence of the researcher. The questions are completed at the respondent's own time and pace. Moreover, the method is relatively cheap and it facilitates easy access to data. Above all, questionnaires are flexible and can be used to gather information from a large number of people in the shortest possible time.

On the other hand, an open-ended question was given at the end of each questionnaire to allow respondents to formulate and record answers in their own words. This also allowed respondents to include any vital information that might have been overlooked in the close-ended questions.

A structured interview was conducted on professional library staff comprising heads of departments and branch libraries, the Deputy University Librarian and the Librarian, to seek further clarification on some issues and also to solicit additional information on pertinent matters.

In order to obtain relevant data for this study two different sets of questionnaires and an interview schedule targeting three different groups of respondents were designed. The questionnaires and interview schedule were as follows:

1. Survey of Faculty opinion regarding the effectiveness of user education programs at UNZA Library
2. Survey of student opinion regarding the effectiveness of user education programs at UNZA Library
3. Structured interview schedule regarding Library staff opinion on effectiveness of library user education programs

Although respondents had not been asked to sign the questionnaires, they had been asked to provide some personal data such as majors and classifications for students and rank for faculty. The researcher hopes that by cross tabulating this data with responses to other questions possible target populations could be identified for pilot user education programs.

This method-combination (i.e., the use of questionnaires and interviews) which is also known as quasi-triangulation was adopted because the weaknesses of each single method are compensated by the counter-balancing strengths of the other. The weaknesses of the questionnaire, that it can be reactive, it lacks probing power, were compensated by the strengths of the personal interview. The weaknesses of the personal interview that it lacks the ability to collect data from a large population sample within a short period of time were counter-balanced by the advantages of the questionnaire method.

However, the researcher was also aware of the limitations of the quasi-triangulation method. Phillips (1971) and Denzin (1978) report that this method is more time-consuming and costly to use than a single method, since each comment has to be designed and applied within the given period of time allocated for fieldwork. Furthermore, it tends to produce more data than may be required for analysis. This in effect makes data analysis more costly and time-consuming. But since the emphasis in this method package was on the questionnaire, the principal instrument by which the data was collected, the weaknesses portrayed above were not considered significant in this regard.

3.5 Administration of the questionnaires

The student questionnaires were delivered in person, with the assistance of academic faculty, library staff and other University staff. Students were contacted when they went for their lectures. A period of two days was given at the end of each questionnaire to allow respondents to formulate and record answers in their own words. Unfortunately, a

setback occurred just after distributing the questionnaires, the academic faculty went on a strike which lasted two weeks. Consequently, collection of questionnaires from students was slow and this affected the response rate of the students. The exercise of data collection from students lasted four weeks instead of the planned two weeks. The researcher made follow-ups, wherever possible, to increase the response rate.

The questionnaires for academic faculty were distributed two weeks later after distributing questionnaires for students. The same procedure was followed for the delivery of questionnaires to academic faculty. The faculty's questionnaire was delivered in their offices as opposed to their residential addresses. Thus, it required more than one visit to track down the respondents for both the administration and collection of the questionnaires. In addition, contact with the faculty members was restricted to some business hours only, unlike students some of whom were located in the evenings.

Interviews with library staff were conducted at their respective working places. Each respondent was given an interview schedule prior to the interview. Each interview took approximately one hour. Where there was need for clarification, follow-up interviews were made to solicit for additional information.

Prior to collection of staff lists and subsequent administration of the questionnaires, the researcher obtained written permission from the registrar to conduct research (see Appendix I). This letter introduced the researcher to all deans, directors and heads of departments and thus enabled him to access some of the official documents, which served as background information for this study.

3.5 Data analysis

Both Epi Info, Version 6 and Statistical Package for Social Sciences (SPSS) were used to conduct data analysis, i.e. to summarize observations or data in a manner that would provide answers to research questions. The Epi Info was chosen because it offers a comprehensive solution for reporting, modeling, and analyzing of data (Center for

Disease Control, 1994). The software is also user friendly as compared to Minitab, SAS and SPSS. It consists of a series of microcomputer programs that can be used to handle data in questionnaire format and for organizing study designs and results into text that may form part of written reports. It includes features used in other statistical programs such as SAS, SPSS and database programs like dBASE. Unlike commercial programs, however, Epi Info, may be freely copied from Internet at web site <http://www.cdc.gov/epo/epi> or <http://www.info6.org> and distributed to friends and colleagues. In addition, Epi Info allows for automatic error checking and automatic coding in the questionnaire. It allows a user to import and export files from other systems like SAS, SPSS, dBASE, and Lotus 1-2-3. Furthermore, it is very helpful in manipulating large amounts of data, finding patterns and testing hypotheses. The data obtained was analyzed using simple descriptive statistics like charts and tables to determine tendencies in response patterns. This determined cross tabulation, frequency analysis and charts to establish the findings. Responses from open-ended questions, where the respondents were allowed to make their own comments and give their suggestions, were treated to content analysis method.

Data for this research were collected, edited, coded and entered on the Epi Info 6 and then exported onto the SPSS. Great care was taken to ensure that the respondents' answers were uniformly and accurately recorded for tabulation and analysis. The editing process involved examination of each instrument for inclusion or exclusion according to the percentage of completeness or obvious ambiguities, inconsistencies and illegibility of input. The open-ended questions were classified under ten headings and coded. Data from library staff interviews was treated to content analysis.

The response rate was 67.9% for students, 97% for academic faculty, and 100% for library staff. The high response rate may be attributed to the size and format of the questionnaires. In addition, the letter from the registrar may be another related factor. Another factor that might have contributed to the high response rate could be the respondents' high interest in the subject, as inferred from the large number of comments on both the open-ended and close-ended questions. Question 25 on the student questionnaire and 16 on the academic faculty questionnaire, which requested for personal

opinions, appraisals and criticisms of the UNZA Library, attracted a lot of comments and yielded valuable data. The following comment from one library staff interviewed perhaps sums up the interest that was shown by the library staff:

"It is good that you are taking these things [user education] seriously. Lack of user education at the University has had very devastating impacts. It has contributed to the bad image of librarians among both students and academic faculty. People do not appreciate what we are doing. Investing in user education can help the library lobby for support from academic faculty and better funding from university management. The findings of this research will be very important to the University, the library profession and the nation as a whole".

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

It is better to light one candle than to curse the darkness.

-Old Chinese proverb

4.1 Introduction

This chapter is divided into six sections. The first section provides background information about the respondents. The second section identifies the types of user education programs offered at UNZA and assesses their effectiveness. An assessment of the level of students' awareness of the available library-based information technology resources and the levels of usage of these resources follows in the third section. In the fourth section an investigation into the role of the academic faculty in the current user education programs is carried out. The fifth section assesses the level of academic and administrative support to the current user education program. A summary of the problems affecting user education programs at UNZA is presented in the sixth section. Lastly, the seventh section comprises the hypothesized findings.

The study sought to assess the effectiveness of the current user education programs at the University of Zambia. Data were collected from respondents through close and open-ended questionnaires and structured interviews. Two sets of questionnaires were used, one for students and the other for academic faculty. Both sets were distributed to students and academic faculty at the two campuses, the Great East Road Campus and the Ridgeway Campus. Interviews were held with six professional library staff at the Main Library and the two branch libraries-the Medical Library and the Veterinary Library.

4.2 Background of respondents

4.2.1 Students

Five hundred and twenty-three questionnaires were distributed to students, and 355 (67.9%) responses were received. Twenty-three different undergraduate majors and several postgraduate majors such as history, geography, mathematics and gender studies were represented in the survey. Students who listed their major as BAED (13.2%), BA (8.2%), BENG (6.8%), BMINSC (5.9%), BSCAG (5.1%), BSCNRS (5.1%), BVETMED (5.1%), and LLB (5.1%), accounted for the highest rates of response (Table 4.1).

Table 4.1: Student response rate by program of study

| <i>Major</i> | <i>Freq.</i> | <i>Percent</i> |
|--------------|--------------|----------------|
| BA | 29 | 8.2 |
| BAED | 47 | 13.2 |
| BALIS | 16 | 4.5 |
| BANQS | 15 | 4.2 |
| BEDPR | 10 | 2.8 |
| BEDSP | 11 | 3.1 |
| BENG | 24 | 6.8 |
| BMC | 15 | 4.2 |
| BMINSC | 21 | 5.9 |
| BSC | 16 | 4.5 |
| BSCAG | 18 | 5.1 |
| BSCED | 16 | 4.5 |
| BSCHB | 3 | 0.8 |
| BSCNQS | 6 | 1.7 |
| BSCNRS | 18 | 5.1 |
| BSW | 16 | 4.5 |
| BVETMED | 18 | 5.1 |
| CAE | 1 | 0.3 |
| CILAW | 2 | 0.6 |
| CRTDEM | 1 | 0.3 |
| DAE | 7 | 2.0 |
| LLB | 18 | 5.1 |
| MBCHB | 2 | 0.6 |
| Masters/PhD | 25 | 7.0 |
| TOTAL | 355 | 100.0% |

Key to the table to Table 4.1

| | |
|---------|---|
| BA | Bachelor of Arts |
| BAED | Bachelor of Arts with Education |
| BALIS | Bachelor of Arts with Library and Information Studies |
| BANQS | Bachelor of Arts (Non-quartered) |
| BEDPR | Bachelor of Education (Primary) |
| BEDSP | Bachelor of Education (Special) |
| BENG | Bachelor of Engineering |
| BMC | Bachelor of Mass Communications |
| BMINSC | Bachelor of Mineral Science |
| BSC | Bachelor of Science |
| BSCAG | Bachelor of Agricultural Science |
| BSCED | Bachelor of Science with Education |
| BSCHB | Bachelor of Science and Human Biology |
| BSCNQS | Bachelor of Science (Non-quartered) |
| BSCNRS | Bachelor of Science and Natural Resources |
| BSW | Bachelor Social Work |
| BVETMED | Bachelor of Veterinary Medicine |
| CAE | Certificate in Adult Education |
| CILAW | Certificate in Law |
| CRTDEM | Certificate in Demography |
| DAE | Diploma in Adult Education |
| LLB | Bachelor of Law |
| MBCHB | Bachelor of Medicine |
| PhD | Doctor of Philosophy |

The students were asked to state whether they were taught how to use the library, Figure 4.1 shows that 74.1% of the student respondents were exposed to library instruction at their secondary schools; 52.3% at the public library; 39.3% at the college library; and 9.7% at another university. One respondent indicated that s/he was exposed to library instruction at the place of work.

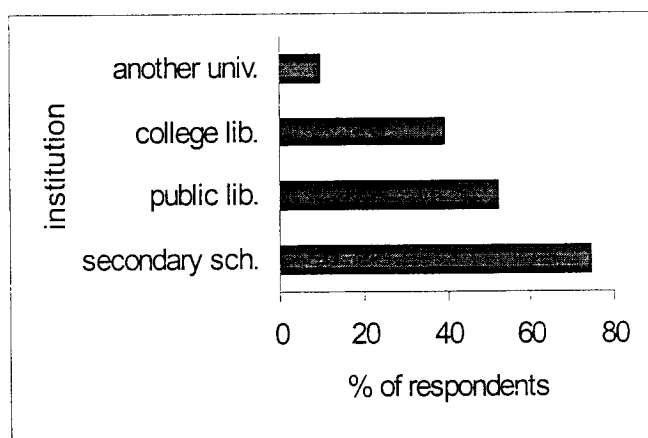


Figure 4.1: Exposure to library instruction

These findings suggest that the majority of the respondents had some kind of library instruction before they entered the University. However, academic faculty surveyed indicated that this instruction is inadequate to meet the research demands at this university. Some student respondents also commented that most of the secondary school libraries were poorly stocked and did not require much information retrieval skills to be effectively used. In general it may, therefore, be argued that the kind of library instruction the respondents received at secondary school may have been too inadequate to prepare them to effectively use a university library.

4.2.2 Academic faculty

Sixty-six academic faculty from thirty-two departments were sent a questionnaire entitled "Survey of Faculty Opinion Regarding the Effectiveness of the User Education Program at the University of Zambia". Sixty-four questionnaires were completed and collected, giving a response rate of approximately 97%. Table 4.2 shows that academic faculty from 32 departments answered the questionnaire. Responses to question 1 on departmental affiliation indicated that the departments with the highest response rates were Geography (7.8%), Agriculture (6.3%), History (6.3%), and Mathematics (6.3%). When asked their academic rank, 27.4% indicated that they were lecturer I, 22.6% were lecturer III, 17.7% were lecturer II, 16.1% were senior academic faculty, 9.7% were professors, 4.8% were staff development fellows (SDF), and 1.6% were associate professors. Two did not indicate their academic rank.

Table 4.2: Academic faculty's response rate by department and length of teaching experience

| Department | Length of teaching experience | | | Total |
|--|-------------------------------|------------|------------|-------|
| | 0-2 years | 3-7 years | 8 years + | |
| Agricultural Economics | 2 | 1 | 1 | 4 |
| Animal Science | | | 1 | 1 |
| Biology | | | 2 | 2 |
| Chemistry | 1 | | 1 | 2 |
| Civil Engineering | | 1 | 2 | 3 |
| Clinical Studies | | | 1 | 1 |
| Disease Control | | | 1 | 1 |
| Educational Administration | | | 1 | 1 |
| Educational Psychology | 1 | | 1 | 2 |
| Gender Studies | | | 1 | 1 |
| Geography | 1 | 1 | 3 | 5 |
| History | 1 | 2 | 1 | 4 |
| In-service Educational and Advisory Services | | 2 | | 2 |
| Language and Social Sciences Education | 1 | | 1 | 2 |
| Law | | | 1 | 1 |
| Library and Information Studies | | 1 | 2 | 3 |
| Literature and Languages | | | 1 | 1 |
| Mass Communications | | | 2 | 2 |
| Mathematics and Science Education | | 1 | | 1 |
| Mathematics | | 1 | 3 | 4 |
| Mechanical Engineering | 1 | | | 1 |
| Metallurgy and Mineral Processing | | | 2 | 2 |
| Obstetrics and Gynaecology | | 1 | | 1 |
| Paraclinical Studies | | 1 | 1 | 2 |
| Pathology/Microbiology | | | 1 | 1 |
| Physiological Sciences | | 1 | 1 | 2 |
| Political and Administrative Studies | 1 | | 2 | 3 |
| Social Development Studies | | 1 | | 1 |
| Surgery | | 1 | 1 | 2 |
| Surveying (Engineering) | 1 | | 1 | 2 |
| Economics | 1 | | 1 | 2 |
| Surveying (Mining) | | 1 | | 1 |
| Total | 11 (17.5%) | 16 (25.4%) | 36 (57.1%) | 63 |

Academic faculty were asked to describe their instructional duties (question 3). Ninety-two percent were in full-charge of a class, 1.6% conducted laboratory sessions, 3.1% conducted tutorials, and 3.1% performed other duties that included non-teaching responsibilities such as preparing curricula and administrative duties at faculty level. The study therefore indicates that the majority of the academic faculty (92%) performed a wide range of instructional duties that included teaching, grading, tutorials, and laboratory sessions. Furthermore, Table 4.2 shows that 57.1% of the respondents had taught for eight or more years, 25.4% had taught for three to seven years, and 17.5% had taught for two or less years. Only one person did not respond to this question.

Academic faculty were asked to indicate how they had acquired library skills in their graduate studies. Most (91.5%) learned library skills largely on their own but did have additional help through informal consultation with other academic faculty (60.4%), through a course in library research taught by departmental faculty or a librarian (37.3%).

The above findings have implications on user education. Considering the fact that the majority (54.8%) of the faculty are senior academic faculty and above; have taught for eight years or more; have acquired information skills on their own; this may suggest that the information skills most of the academic faculty possess are limited to the basics. Harris' (1981) observation that "one must accept the basic ignorance of many scientists and academics because they themselves grew up in an earlier period and had themselves no user education" might apply here. He further observes that it is now much more difficult to learn by improvisation and serendipity. The Library staff interviewed indicated that some academic faculty did not value user education because they felt that if they had succeeded to complete their studies when they were undergraduates and graduates without it their students could also manage in the same way. Haynes (1996) observes that as a means of coping with the growing complexities of knowledge, professors may be tempted to continue relying on their familiar information networks, such as consultation with trusted colleagues in their disciplines, use of their own subscriptions and personal libraries, and contacts at conferences or on research projects as their primary information sources. However, essential as these sources are, those who

limit themselves to these may miss information vital to their research and teaching as well as the opportunity of profiting by the comprehensive, systematic, organized and selective approach to information that is available through libraries. Perhaps this comment from one academic faculty respondent is no better testimony to Haynes' observations:

"Lecturers use the same books which they had used as students in the 1950s to churn out graduates. Future posterity will judge us harshly".

Rajagopalan, (1978) had observed that knowledge of the structure and use of scientific literature is not gained intuitively but has to be taught. Baker, Birchfield and Weston (1992) have also observed that faculty members unexposed to recent developments such as integrated bibliographic systems, CD-ROM publishing, computer networking, full-text databases, and electronic text manipulation are obviously often at a loss in taking advantage of them, and thus can not easily incorporate them into their own teaching practices. It can, therefore, be argued that faculty at UNZA may not be expected to adequately train students in information skills.

When asked whether there should be library orientation for new faculty (question 6), 92.2% answered "yes". One academic faculty commented:

"The library staff must not assume that even us faculty members are computer literate. There is need for training in the use of information technology resources".

This positive response is indicative that many faculty want to be educated about the library. The library should take the initiative and provide update courses and by so doing they will make faculty appreciate the role of librarians in the information retrieval process. The need to give faculty opportunities to learn about new technologies in a supportive environment, and in ways that are immediately applicable in their areas of teaching and research, is increasingly being recognized as an important educational issue (Baker, Birchfield and Weston, 1992).

4.2.3 Current library usage patterns among students

Students were asked to indicate how often they visited the library. Figure 4.2 below illustrates that 34.2% ($n=119$) of all the student respondents visit the library four or more times per week; 48.3% ($n=168$), one to three times per week; 16.1% ($n=56$), once or twice per week; while 1.4% ($n=5$) seldom or never visit the library. It is significant that 98.6% of all the respondents visit the library at least once a month and generally more frequently than that. Above all, 81.4% of all the respondents generally held a positive attitude toward the library, while only 9.0% held a negative attitude.

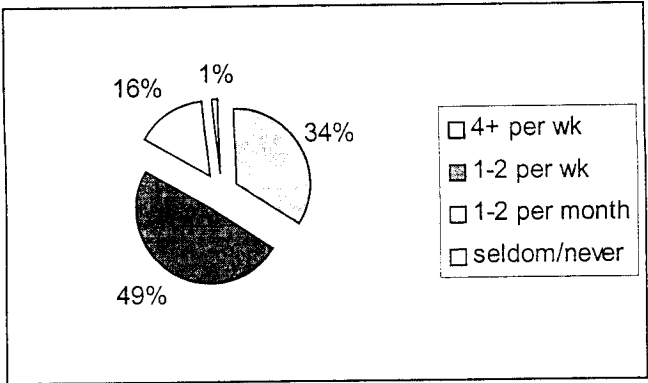


Fig. 4.2: Number of times students visit the Library

Though these findings are encouraging, some students commented that they visited the library mainly to study their lecture notes, to copy notes from friends and to write assignments rather than to use the library resources and services. Perhaps the comments below speak for most of the students:

"I use the library because when I see others reading profusely I get encouraged to read even harder".

"Though I visit the library so often, I just use the library as a study hall. I use my own materials and I read from the Library because it is quieter in comparison to other places".

When students were asked to indicate how often their assignments in courses involved using library resources other than materials placed on reserve by academic faculty, 44.9% of the student frequently required the use of the library resources for class assignments in courses, while 51.7% sometimes used the library's resources. This means that approximately 96.6% of the respondents have taken courses that require use of the library resources for either research papers or class assignments. This would suggest that ability to use the library effectively is vital for the academic success of students. Of the 1.4% who seldom or never visit the library, one replied that her/his courses did not require library use; two indicated that the Main Library was inadequate for their needs; and two indicated that they did not know enough about using the library. The student respondent whose course did not require library use explained that s/he uses information resources from a faculty departmental library. The researcher is of the opinion that some respondents who indicated that they never used the library were essentially referring to the Main Library; but it is possible that they were using other libraries like faculty departmental libraries.

Zulu (1988) in her survey reports that some faculty departmental libraries have been established through the initiative of some academic faculty who have donated their personal information resources. These libraries are not part of the UNZA Library system and are usually run by faculty clerical or administrative staff. They are mainly found in the Faculties of Natural Sciences and Engineering. Zulu further observes that the formation of these libraries has affected students' attitude towards the Main Library as many students felt that departmental libraries offered more and better information in their subject areas. On the other hand, the researcher observed that the formation of faculty departmental libraries was mainly a consequence of the inability of UNZA Library to provide adequate resources and services to its clientele. As Zulu (1988) rightly points out, because information and literature are the fundamental raw materials of academic teaching and research, the academic's likely response to an inadequate library is the development of his/her own departmental collection.

Students were asked to indicate their information seeking patterns when courses required the use of the library resources for papers or research projects. Figure 4.3 shows that 27.9% frequently asked their lecturer to recommend books and other materials, 25.6% frequently asked friends for help, while only 6.3% frequently asked a librarian for help. When using the library for research, few (16.4%) frequently did background reading, consulted the online catalog (16.1%), checked the Library of Congress Subject Headings (9.6%), browsed through the library's books and periodicals (22.8%), used the CD-ROM databases (2.7%), or used an index to periodicals (7.4%).

These findings suggest that students make very little use of library resources for their assignments but heavily rely on their academic faculty's notes and textbooks. Furthermore, students rarely consult librarians for assistance, this could be attributed to the attitude of the librarians which students perceived to be "unfriendly". The following remarks from respondents demonstrate this:

"Library staff are too reserved or too closed-up."

"Librarians should interact with students in order for us to know them."

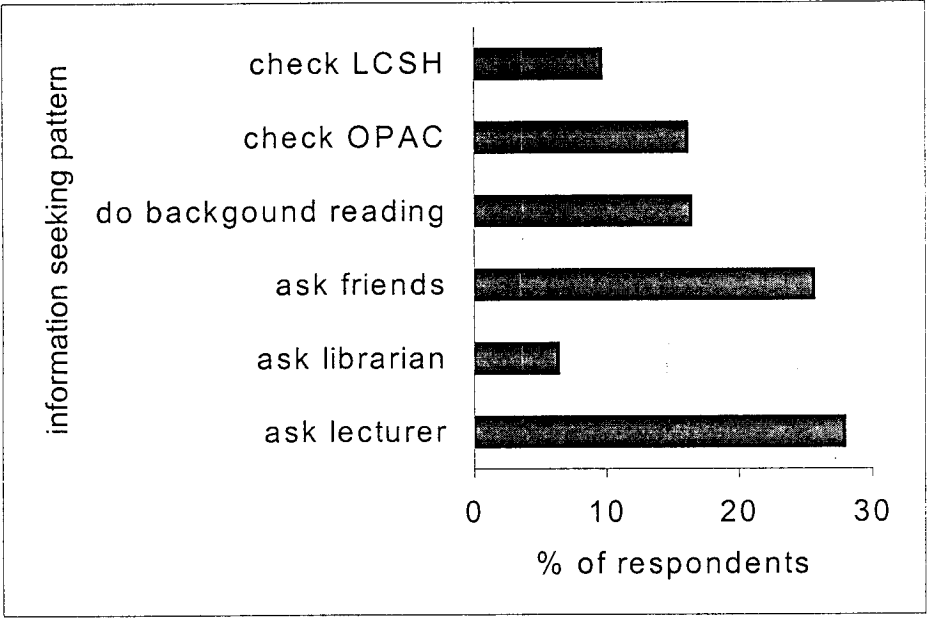
"Library staff need training on etiquette of their calling. We are not their enemies and so we shouldn't be treated as such".

The above responses seem to confirm Zulu's (1988) observation that users' recognition of the library's function comes about not through an appreciation of the official role of the library in the institution but through experiences of its services through its staff.

The library staff interviewed also reported that very few students used the Library of Congress Subject Headings because no instructions were given on its use as it was considered to be a cataloguing tool rather than a retrieval tool. Consequently, all the sets of the Library of Congress Subject Headings were kept in the Technical Services Division, an area out of bounds to users. Non-use of the Library of Congress Subject Headings may lead to poor retrieval of relevant information from the catalogs as users search using their own search terms, which are often different from those used by catalogers. This might be one of the reasons some users found the catalogs difficult to use

and suggested that they should be improved. Some respondents also complained that the catalogs did not match what was available on the shelves and this caused frustrations on their part. Thus they often opted for a time consuming process, to go directly and browse through shelves. There is therefore an urgent need for the library to constantly update its catalogs.

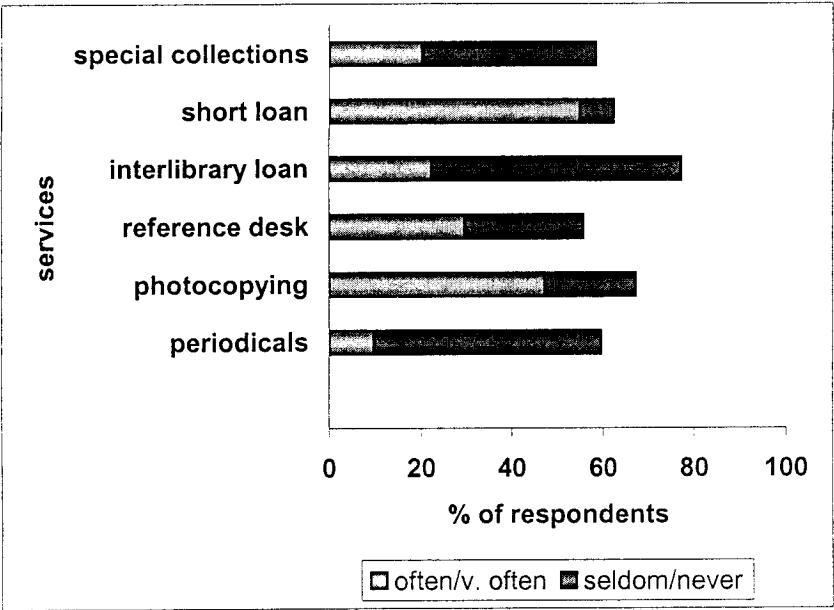
Fig. 4.3: Information seeking patterns of students



Students were asked to indicate how often they used library services. Figure 4.4 shows that 9.7% often or very often used the Periodicals Section while 49.8% seldom or never used it. About 47.1% often or very often used photocopying while 20.0% seldom or never used photocopying. Approximately 29.5% often or very often consulted the reference desk while 26.1% seldom or never consulted the reference desk. About 22.3% often or very often used interlibrary loan while 54.8% seldom or never used interlibrary loan. About 54.4% often or very often used the Short Loan Collection while 7.4% seldom or never used it. Approximately 20.2% often or very often used the Special Collections while 38.1% seldom or never used it. These findings indicate that generally library services are underutilized and respondents depend mainly on reserve materials in the

Short Loan Collection. The Periodicals, Special Collections and interlibrary loan services are the least used.

Fig. 4.4: Level of usage of library services

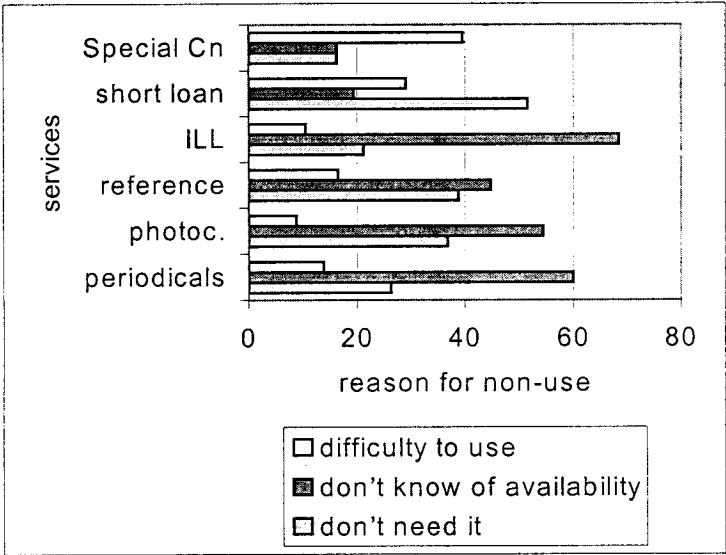


When asked to give reasons why they seldom or never use any of the above services, Figure 4.5 shows that 60.0% were not aware of the availability of the Serials Section; 54.4% were not aware of the availability of photocopying; 44.7% were not aware of the availability of the reference desk; and 68.4% were not aware of the availability of interlibrary loan. Approximately 39.6% indicated that they found it difficult to use the Special Collections. About 51.6% indicated that they did not use the Short Loan because they did not need it.

Respondents were asked to indicate some of the problems they often encountered when searching for information in the library. Some of the problems which were pointed out include the following: most of the relevant books are in the closed access areas such as the Short Loan Collection and the Special Collections, which pose restricted access. These areas are inoperative from 17.00 to 22.00 Hours and during the weekends. Yet, according to the respondents, these are the best times for users to do their research, as they are free from lessons and formal duties. Furthermore, some respondents pointed out

that the use of the library was limited by the poor quality of stock. A member of library staff interviewed reported that interlibrary loan, apart from being restricted to postgraduate students and academic faculty, was almost inoperative due to lack of funds. Some respondents were frustrated by the prolonged non-availability of the photocopying services due to a persistent shortage of toner and paper and to its constant breakdown.

Fig. 4.5: Reasons for non-use of library services



One respondent suggested that the library should contract a private firm to provide photocopying services in all sections of the library, particularly in the closed access areas like the Special Collections, the Serials and Short Loan Collections.

4.3 Types of user education programs being offered for all categories of students at UNZA

Students were asked to indicate the types of user education they had received since enrolling as students at UNZA (multiple responses were permitted). Table 4.3 shows that the majority had attended a guided tour of the library (76.2%). Others had received instruction from a faculty member in one of their classes (36.7%); self-guided tour of the library using a printed guide (38.5%); computer assisted library instruction (32.2%); and instruction from a librarian in one of their classes (20.8%). Seven percent (7.0%) of the

respondents indicated other ways in which they had learnt how to use library resources. These included learning from senior students, using library handbooks and bibliographies (prepared by a lecturer in the history department), library tours conducted by academic faculty in conjunction with librarians, and self-guided tours without a printed guide.

Table 4.3: Types of user education received by students

| Type of user education | Frequency | Percent |
|---------------------------------------|-----------|---------|
| Self-guided tour | 127 | 38.5% |
| Guided tour | 262 | 76.2% |
| Instruction from librarian in class | 69 | 20.8% |
| Instruction from faculty in class | 119 | 36.7% |
| Computer assisted library instruction | 107 | 32.2% |

The findings have, therefore, shown that the major type of user education program offered at UNZA is library orientation in the form of a guided tour. In the interviews with library staff it was explained that library orientation is conducted at the beginning of each academic year and it is a voluntary exercise and attendance is poor. It aims at introducing first year students (freshmen) to the available library resources and teaching them how to use these resources effectively. Students are introduced to the different sections of the library and specifically to their appropriate subject areas. The classification schemes and the use of the catalogs are explained in general terms. The orientation is done only once in the lifetime of the student at the University. One library staff commented that "the Library does not instruct but simply shows users the services and resources being offered". User education therefore exists at a very low level. Another library staff respondent observed that during the orientation students were "casually informed that, if they later ran into problems, they could consult librarians on how to use the library resources and services".

At the Main Library, user education is a responsibility of the Readers' Services Division. The Readers' Services Division comprises the Reference Section, the Issue Desk, Short Loan Collection, Interlibrary Loan, Postal Loan and the CD-ROM Section. The head of

the Readers' Services Division oversees all the sections and arranges library orientation programs. S/he is responsible for maintaining reader assistance services and also sees that access to material on the open stacks is facilitated by means of displays, sign posting and good shelf arrangement. The Inquiry Desk is also part of the division and is managed by a library assistant. S/he deals with general inquiries regarding the library and handles photographic and bindery charges. The Serials Section works closely with the Readers' Services by referring users to the Reference Librarian for counseling and assistance in information retrieval methods. Assistant librarians from various divisions of the Library are requested to assist in conducting library orientation. There are no permanent staff assigned to handle this task.

The Reference Desk carries out post-orientation teaching on abstracts and indexes and normally this is conducted on a one-to-one instruction. However, post-orientation is not formalized and is only done when approached by a library user. It was reported that most print indexes and abstracts were as old as 1986 and were therefore not suitable for post-orientation instruction. Consequently, users were usually referred to the CD-ROMs, which were more up to date.

In 1998 the Main Library had a voluntary user education program on information technology library-based resources. Graduate students were provided with library instruction on how to use the CD-ROM databases and the OPAC. Postgraduates, especially in history and mass communications showed keen interest in this program.

At the Samora Machel Veterinary Library one library staff interviewed reported that library orientation was offered to first year students to "show them the geography of the library and the resources and services provided". It was further reported that there was no formal post-orientation; it was up to the student to seek instruction on how to use the library resources. Students who approached the Reference desk for post-orientation "may be attended to depending on who is on duty as there is no written policy". However, students were taught how to use audiovisual equipment and CD-ROM facilities at the point of need. It was reported that the frequent breakdown of the server had affected the

teaching of the use of the OPAC and Internet/WWW. It was also observed that since the collection was small students were able to locate most of the materials without consulting the catalogs.

Likewise the Medical Library staff interviewed reported that there was an informal post-orientation program. The Medical Librarian has structured a course with different emphasis for undergraduates and postgraduates. Areas covered include word processing and Internet searches. There was also a request from faculty to teach information skills to Post Basic Nursing students. Junior staff were used to teach some programs but the librarian handles most of the programs, especially those involving postgraduates. The library staff interviewed felt that it was important to have confident and competent professional staff as it was not good to use library staff lacking a strong professional background. User education makes users realize and appreciate the librarian's abilities. Formal teaching qualifications were considered important because they enable librarians to handle lessons systematically. Therefore, it was felt that user education would be more organized and effective if librarians had had formal training.

4.4 Effectiveness of user education programs at UNZA

4.4.1 Library orientation programs

The student, academic faculty and library staff surveyed have revealed several serious weaknesses about the general purpose, content, style and methods of library orientation programs offered at UNZA. The weaknesses pointed out by the respondents center on the following areas: duration, number of students, timing of program, lack of academic faculty involvement, lack of teaching aids, lack of feedback from the participants, and ignorance of user education among library staff. The number of students involved is often too large for any effective education to take place, especially for faculties such as Education, Humanities and Natural Sciences.

It was also reported that the timing of the program is inappropriate. According to library staff interviewed the first weeks of the academic year are not the best times to attempt

user education. Students are too preoccupied with becoming acquainted with their academic faculty, course registration, acquiring textbooks, securing accommodation, and making general adjustments to campus life. Freshmen orientation week programs are often too full of many different kinds of activities to enable students to assimilate detailed instruction on how to use the library. It was further reported that too much is done within such a short period of time. In a single tour spanning an hour, the student is expected to know how to use the library catalogs, periodical guides, reference materials, abstracts and subject indexes, and basic reference tools. The tours have become, to borrow Mews' (1972:18) words, "wild scrambles of parties on the run round a large institution, anxious only to head off the party in front and to avoid involuntary fusion with the party behind". This renders the program ineffective. Farber (1993) asserts that such a program, apart from being ineffective, is counterproductive as it only reinforces the stereotype of libraries as boring places and librarians as mere custodians.

Research has shown that a user education program needs to be evaluated to assess its effectiveness in attaining the stated objectives (Fjallbrant, 1977). The evaluation of the program is essential since it provides information that could be useful in decision making (Zondi, 1992). An evaluation exercise is also a communication tool; it can be a demonstration to users that the library cares about them. The evaluation could take the form of questionnaires, assignments by librarians, or even examinable courses as is done in some universities. Unfortunately, library staff interviewed reported that none of these is done in the UNZA Library system. This means that the Library lacks knowledge of how students who have gone through this program have benefited. The information given is based on the librarian's conception of what a user ought to know rather than on assessment of a user's needs. The failure of the Library to conduct evaluation can be attributed to the lack of a written user education policy and written objectives. Fidzani (1995) argues that written policies and objectives on user education provide a basis for self-evaluation.

Another major weakness of the library orientation programs that was pointed out mainly by student respondents is that they are conducted without any instructional materials. The

library staff interviewed reported that no printed materials (guides, rules, etc.) were provided. Based on the findings it suggests that the treatment is therefore too superficial. The exercise relies too heavily on the student's memory at the time when s/he is struggling to adjust to university life and is being given a considerable amount of factual information, most of which s/he considers more relevant and vital than information about the use of the library.

At the Medical Library, library staff interviewed observed that one of the major contributions to poor orientation includes general apathy from older students. They reported that older students usually told new students that it was not necessary to attend library orientation as they were going to catch up on their own. One library member of staff attributed this apathy to the fact that undergraduate students join the Faculty of Medicine in their third year after doing their first two years at the Great East Road Campus. Consequently, they usually feel that the orientation conducted at the Medical Library may not be different from the one they had at Great East Road Campus in their first year. During the interviews, it was further reported that very little time was given to the preparations of orientation programs and this rendered them ineffective. It was also reported that there was also lack of support from the University Management responsible for planning timetables and orientation programs. The library staff interviewed further reported that management often was literally forced by the library to slot in library orientation on the timetable. However, the researcher is of the observation that the major problem is a lack of coordination and communication between University management and the Library management during the timetable and general orientation preparations.

The study has also revealed that some (if not most) of the library staff lack a deep understanding of the importance of user education mainly owing to their poor training background. Sometimes the Library involves library assistants who have little training to conduct orientation as a result they are unable to adequately explain to students the use of library resources. With regard to this issue, one academic respondent commented, "library faculty must be trained in library skills". Furthermore, it was noted that students at this time do not understand the importance of the library as they have not yet received

assignments, projects and other related academic activities. One student commented, " In first year we don't consider what the library instructor teaches to be serious". Some library staff reported that academic faculty did not participate in library orientation sessions but "...simply introduced students to the librarians and then walked away, thus giving an impression to the students that the program was not very important". However, the researcher is of the view that since the programs consist mainly of library tours, this does not demand much presence of the academic faculty.

Perhaps the weakness of the library orientation programs was best summarized by one academic faculty member when he said:

"Library staff must review the way they provide user education. At present they only conduct routine library orientation which is inadequate and does not impart the necessary skills to students to enable them independently search for information in the library. It is important to bear in mind that most students enrolled at this university did not acquire library skills at secondary schools. This means that the library must collaborate with academic faculty taking first year foundation courses and fuse in library skills. Students, especially freshmen, need more than just the orientation conducted when they just come. They need proper instruction as they settle down to study. Establish a desk for counseling students about the use of the library instead of assuming that the few hours' orientation given to them upon arrival is enough. They need more guidance after this".

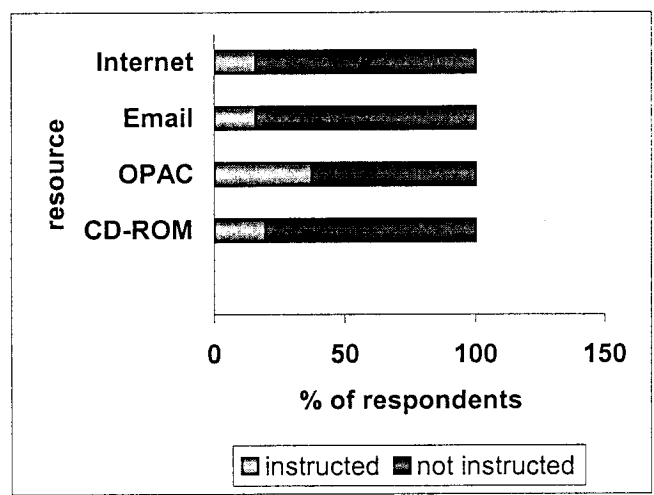
Therefore, library orientation programs conducted at UNZA Library have many shortcomings, which adversely affect their effectiveness. Students still find difficulties in finding materials on the shelves even after being oriented. The program needs to be improved if it is to meet its intended objectives. In spite of these weaknesses, the library staff interviewed felt that library orientation was worthwhile. It was important for students to know where to find materials independent of library staff. One library staff commented: "history has shown that students who are able to use reference tools and library resources perform better".

4.4.2 Library instruction on library-based IT resources

Fjallbrant (1990b) argues that information technology has two main effects on user education. On the one hand, the growing complexity in information handling and storage techniques brings about the need to teach users what is available, how to choose the most appropriate tool for their needs and how to use it efficiently. On the other hand, new digital processing and storage provide tools for teaching purposes. Fidzani (1995) also reiterates that instruction in the use of the OPAC forms a basic step in learning to search computerized databases, which might lead to more sophisticated searches of other databases, thus enabling the user to be exposed to more information. Thus user education on library-based information technology resources involves: (1) orientation about what online search facilities are available, to what extent users can obtain access to such systems (either with the help of an intermediary or themselves), where searching can be carried out and how much it will cost; and (2) instruction in how to prepare and carry out searches (Fjallbrant, 1990b). It was to this account that the researcher intended to find out whether users were given instruction in the use of library-based information technology resources and the degree of effectiveness of these instructions.

Students were asked to indicate whether they had received instruction on the use of library-based information technology resources. Figure 4.6 shows that 19.6% of the respondents had received instruction on CD-ROM while 80.4% had never received instruction on its use. About 37.3% had received instruction on OPAC, but 62.7% had never received instruction on its use. Sixteen percent (16.0%) had received instruction on E-mail as compared to 84.0% who had never received instruction on its use. Sixteen percent (16.0%) had received instruction on Internet/Wide World Web (WWW) while 84.4% had never received instruction on its use.

Fig. 4.6: Instruction on the use of library-based IT resources



These responses indicate that very little user education is being offered on the use of library-based information technology resources. Several student respondents made comments on instruction on the use of library-based IT resources. Some of the comments below illustrate the views of most of the student.

"The library should teach students how to use IT resources; allowing students to make experiments on the computers just because there are manuals will finally see all the computers broken down".

"The orientation I had received was very poor and no further instructions were given on the use of library-based IT resources and other facilities. This created a negative impact on me. I therefore rely on my notes and department books. The library instruction was poorly arranged and those not present were not given another chance".

The library staff interviewed also reported that, apart from a few isolated ad hoc training sessions, there was no user education on the use of the available IT resources. Usually instruction on the use of IT resources was provided on request from a student or on rare cases from a lecturer. Consequently, the CD-ROM resources were not adequately utilized.

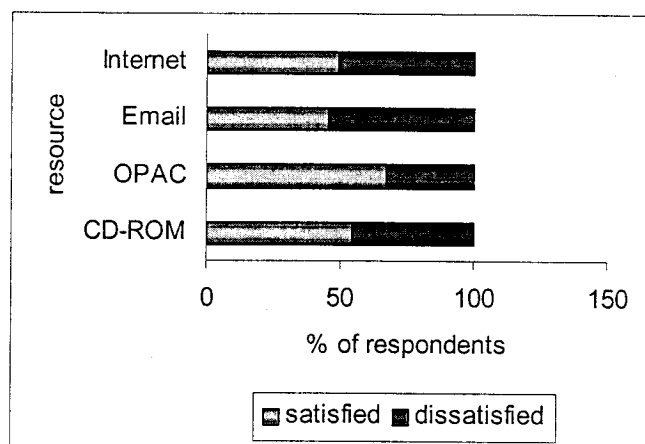
The library staff interviewed also pointed out that the major constraints on the use of IT resources were lack of trained library staff and insufficient numbers of workstations. It

was further reported that usage of microforms housed in the Special Collections was very low mainly because they were not adequately advertised. Maintenance of equipment was another problem mentioned. Most of the microform readers were broken down. Furthermore, it was reported that most library staff lacked skills to confidently operate IT resources. The few library staff that were conversant with IT were not in the public service areas. It was, therefore, felt that there was need to provide in-house training to most library staff on the use of IT resources. One library staff interviewed summed the constraints the library faced in providing user instruction on IT resources saying:

"The major constraints include inadequate computers. Acquiring IT skills depends on frequent practice. This is absolutely crucial. Users should have access to computers in the library, in their common rooms, and academic departments. Access to computer facilities should be throughout the day. Currently, teaching IT use is like teaching a baby how to chew meat without the meat. Students are being put to a disadvantage as they graduate without IT skills. IT skills are a basic requirement in the labor market. It has been established that young people are more adept in learning computer skills than adults learn. So, it is at this stage that they need to acquire these skills. Our students will not be able to relate with their colleagues elsewhere. We have reached a point where we cannot isolate ourselves and ignore IT. Lack of IT resources causes our students to lose the immediacy of information. Librarians should turn from acquiring to accessing information. If we ignore IT we risk working ourselves out of business. Lack of teaching skills among the library staff is a handicap to user instruction. Librarians need to impart knowledge. Teaching is a specialized profession".

When asked to rate the instruction they had received on the use of library-based information technology resources (Fig. 4.7), 67.4% of the student respondents were either satisfied or very satisfied with instruction they had received on OPAC while 32.6% were either dissatisfied or very dissatisfied; 54.5% were either satisfied or very satisfied with instruction they had received on CD-ROM while 45.5% were either dissatisfied or very dissatisfied; 45.7% were either satisfied or very satisfied with instruction they had received on the use of E-mail while; 54.3% were either dissatisfied or very dissatisfied; 49.4% were either satisfied or very satisfied with the instruction they had received on the use of Internet/WWW while 50.6% were either dissatisfied or very dissatisfied.

Fig. 4.7: Level of satisfaction with training given on IT resources



According to the data gathered from the library staff interviews, the level of satisfaction on the instruction received on the use of OPAC was highest mainly because library staff placed much emphasis on the need for users to be acquainted with this resource as it has replaced the traditional card catalog. On the other hand the level of dissatisfaction was higher on CD-ROM, E-mail and Internet/WWW resources as these received little emphasis. Furthermore, the librarians interviewed also explained that instruction on the use of OPAC was offered by librarians while instruction on the use of CD-ROM, E-mail and Internet was done by a library assistant who was in-charge of this section. The concentration of library instruction on the OPAC, overlooking other information retrieval tools like CD-ROM, Internet, abstracts and indexes, suggests that librarians have not appreciated that these other resources are also major sources of information. Furthermore, this suggests that library staff have not yet fully realized that skills in these resources can not be acquired in one-off sessions but require systematic comprehensive sessions.

Some respondents made comments on the need to provide instruction in the use of library-based information technology resources. It was generally felt that a one-day brief was not adequate. It was also pointed out that most students, particularly those from rural areas, were computer illiterate when they joined the university as they came from secondary schools that lacked information technology resources. New students wasted a lot of time learning how to use these resources through trial and error methods. Full exploitation of these resources depends on the training of users on the use of these

resources. Librarians should not assume that most students know how to use these resources. Some respondents felt that instruction removes fear and gives users confidence in the use of information technology. Moreover, instruction increases the awareness of the availability of these resources and helps users to appreciate the use of these resources and reduces their misuse or abusive use. The importance of instruction was stressed by one student respondent who asked: "How else will students find out how useful these resources are?" Another student respondent commented, "The world is in the information age and information has now become a critical resource for society's survival. Most of the much-needed information is only made available through electronic media like the Internet". Most respondents also complained of inadequate workstations and policies and procedures with regard to the use of IT resources particularly in the CD-ROM section. Time limit of 30 minutes for access to Internet and E-mail was felt to be too small for one to carry out meaningful searches. Charging fees for use of E-mail and Internet was also a hindrance to many respondents. Many felt that access to these resources should be free to all categories of users.

When asked to rate the overall performance of the library in relation to provision of user education, 46.8% of the student respondents either agreed or strongly agreed that over all, the Library does an adequate job of teaching students how to use its resources and services, while 53.2% either disagreed or strongly disagreed. These findings indicate that students were dissatisfied with the instruction being offered at the library. The researcher has observed that there is a narrow difference (6.4%) between the respondents who disagreed and those who agreed.

Respondents who had never received library instruction were asked to select a reason why it was so. Figure 4.8 shows that of the 141 (39.9 %) student respondents who answered this question 78% indicated that they were not aware of the existence of library instruction. This suggests that user education may not be well planned and well publicized. One library staff noted that in some academic years library orientation was not conducted at all. One student respondent commented that "library instruction at UNZA only exists on paper". Some student respondents called for an introduction of a

semester course in basic library skills with emphasis on information technology. On the other hand 6.4% declined to attend library instruction because they felt they did not need it. Other reasons given by the remaining 15.6% include missing library orientation because of reporting late for registration; lack of library orientation for students enrolling in other years of study other than first year; library orientation was poorly planned and was not attractive. One student explained that s/he had requested to be instructed but "librarians always claimed to be short of staff when assistance was sought". Another commented, "I know librarians are there but I am not sure whether they are willing to help students". The comment below may shed some light on the feelings of most students:

"Some students are scared of using the computer thinking they might destroy it. It is up to the library staff to remove this fear out of us by teaching us. We also need user friendly programs. Difficult programs cause us to become computer phobic".

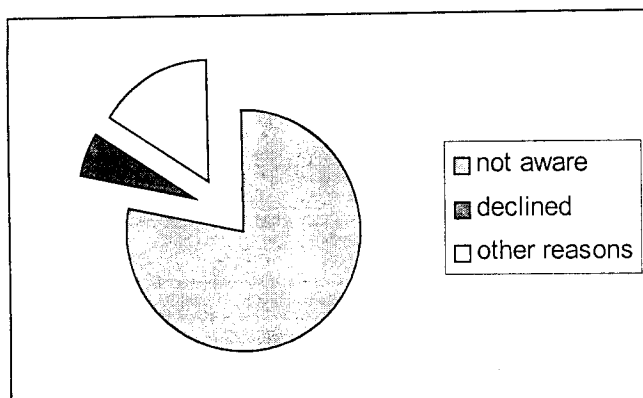


Fig. 4.8: Reasons why some respondents never received library instruction

At the Medical Library, the library staff interviewed reported that an informal instruction program on library-based IT resources was introduced in 1998. Users were instructed on a one-to-one basis on the use of CD-ROM, OPAC, Internet and E-mail, and word processing. It was reported that undergraduates appreciated the skills they acquired in word processing, as they no longer needed to pay for typing their work. Teaching was

pragmatic and was designed to help with immediate problems. Students were taught different search strategies like boolean logic, truncation, etc. Most postgraduate students reported improvements in their education. There was an increased demand for journals and library materials. Medline was very popular with postgraduate students. Internet and word processing were popular to both undergraduates and postgraduates. E-mail was most popular with undergraduates. Users were not able to get adequate training in the use of the OPAC due to system failure.

Library staff who were interviewed felt that information skills should be given a very high priority because as users acquire these skills it reduces the demand on library staff to answer reference queries. It also helps in the preservation of library materials and equipment. One library staff was of the opinion that user education is second only to the actual acquisition of materials and equipment. However, the major weakness of the Medical Library instruction program observed is that it is informal and lacks the support of faculty and both library and university management. It is therefore entirely dependent on the enthusiasm and initiative of the incumbent Medical Librarian and change in this office may lead to discontinuity of the program. It was also observed that while the instructions given were helpful, experience has shown that these strategies were not sufficient to develop fully effective skills in the students unless they were integrated into the university curriculum.

Students were asked to indicate the types of user education they would prefer to have. Figure 4.9 shows that the most popular kinds of instruction were: guided tours of the library (79.4%), computer-assisted library instruction (CAL) (78.4%), classroom presentations by librarians on library resources and skills (61.9%), self-guided tour of the library using a printed guide (46.9%), and handbooks and bibliographies (45.3%). About 63.9% preferred an elective course designed to develop knowledge and skills to do library research and 53.9% indicated that it should be non-credit.

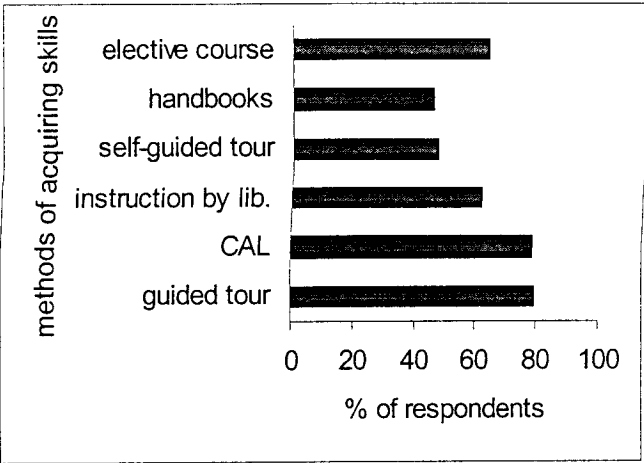


Figure 4.9: Students' response to statements pertaining to ways in which they can acquire library skills

Students were further asked to indicate their feelings on statements that relate to ways they could learn about using the library resources. Figure shows that 72.6% indicated a required course such as Freshman English or Communication Skills where faculty and librarians collaborate in providing instruction on library skills. Others preferred a required course taught by librarians (56.0%) or a course taught by departmental faculty (49.8%).

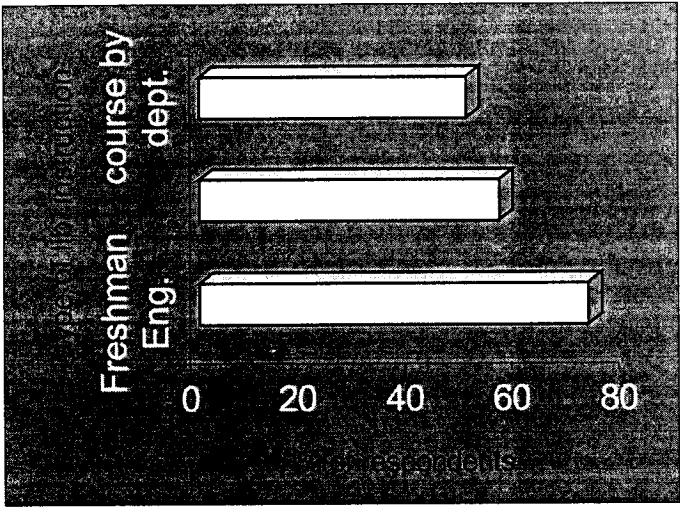


Figure 4.10: Types of library instruction students prefer

Students were asked to indicate where they thought responsibility for instruction is, faculty or UNZA Library. About 74.9% agreed that library instruction is the academic faculty's responsibility while 80.2% agreed that library instruction is UNZA Library's responsibility. Some commented that both the UNZA Library and academic faculty should be responsible to instruct students in the use of library resources. Another comment was that there should be an optional course in library instruction.

Only 3.5% of the students felt that no instruction was necessary, arguing that students possess necessary skills when they enter the university. Again, only 33.2% of the students felt that students could develop library skills independently, asking a librarian when necessary.

4.4.3 Course integration

Writers such as Lester (1979) and Fjallbrant (1977) believe that for a library user education program to be effective, it should be course integrated. A course-integrated user education program involves the teaching staff in the design and its implementation. Its main advantage lies in drawing support from the teaching staff, who in turn motivate the students to learn. The user education program currently being offered at UNZA is voluntary and is conducted by library staff independent of the academic faculty. Consequently, it has not been possible to run an integrated user education program. One library staff respondent commented, "It cannot be claimed that most students experience a planned progression of library teaching over the full period of their course".

Some library staff interviewed reported that the School of Humanities has a library skills component in a foundation course (SS141). However, one library staff was of the view that this component was not well coordinated. It was also reported that librarians were not involved in the teaching of the library skills component. The major weakness that was observed by the library staff was that academic faculty had been issuing the same worksheet year after year. Library staff further claimed that students who were in their second year assisted their first year friends to just fill in the answers without entering the

Library. Consequently, the exercise did not help the students acquire library skills. Moreover, it was observed that the exercise was done as a tutorial and was not credited. The researcher is of the view that the SS141 can be taken advantage of to lobby for the introduction of a more comprehensive course-integrated user education component in the Faculty of Humanities. Furthermore, the involvement of the teaching staff in this component may provide greater influence on the acceptance of the course by students.

It was also reported that the History Department has a program to orient students in library skills progressively. History students were given projects involving the use of the library resources. Individual academic faculty took their students to the library for orientation and encouraged them to use library resources. Though library staff were not involved in the teaching of library research methods students were encouraged to seek assistance from them with regard to library research skills.

The library staff interviewed at the Samora Machel Veterinary Library reported that the Faculty of Veterinary Medicine had a two-week post-graduate library skills program in which students were taught how to do library research using indexes and abstracts. The librarian conducted the instructions as a part-time job and was paid for this particular exercise by the Faculty. The program was not credited but at the end of the semester the librarian was expected to submit a report. The library staff interviewed felt that formal teaching qualifications were important, especially in the teaching of post-graduate user education programs. The interviewee further reported that, previously in-house workshops for library staff involved in library orientation programs used to be conducted by the Readers' Services Librarian at the Main Library; but of late these have been discontinued.

From the interviews it was also learnt that library instruction was not offered in the School of Medicine curriculum. One library staff felt that there was need to lobby for an examinable library user education course in the School of Medicine curriculum. It was reported that students doing Community Medicine spent more time in the Library. When they were doing this course they often approached librarians to discuss their course

content and projects. Librarians usually helped them to do preliminary searches and as a result they got involved with students. The Medical librarian has been participating in editing work of both undergraduates and postgraduates. Users often came for advice on how to write project proposals. However, this was done informally. The librarian interviewed commented:

"A lot hinges on the quality of library staff. There is need for a member of library staff that has a forward thinking approach. If library staff formulate a program, Senate cannot stop them from incorporating it into the curriculum. It just needs formalizing it and timetabling rather than having it on an ad hoc basis".

According to one of the librarians interviewed, the main barrier to librarians' involvement in teaching library skills is the "librarians' own narrow perception about their role in a university". The interviewee went on to explain that "professional library staff [those who hold masters degrees] seemed to be contented with routine work. This has caused inability among librarians to take the initiative. Librarians have for a long time concentrated on the expansion of the holdings, services, staffing and the importance of the university library. Focus has been mainly on technical aspects, with limited attention given to the patrons' broader needs. Consequently, the Library has never made a proposal to the University management to formally introduce library skills. Librarians should first appreciate the problem". Another interviewee assertively put it this way: "Librarians can not win recognition by just sitting back and crying for it. We have to be proactive and fight aggressively".

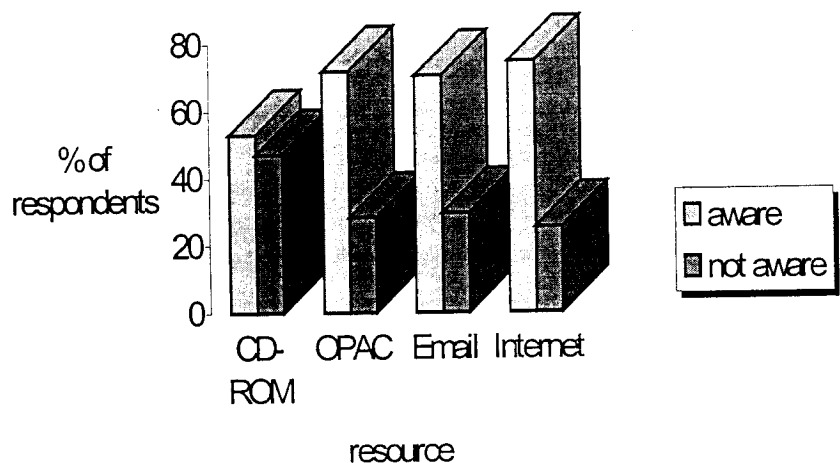
These findings confirm Haynes' (1996: 217) argument that:

"Academic librarians have continued to be reactive expecting academic faculty to approach them when they needed help. It has not yet dawned on them that it is their responsibility to create administrative structures within their unit that will make collaboration between them and the faculty possible. Librarians must be granted the authority, responsibility, and time to develop the programs that will accommodate institution-wide curriculum needs, rather than merely responding to individual requests from those faculty who already recognize the importance of information research to their teaching".

4.5 Level of Awareness of the available library-based IT resources

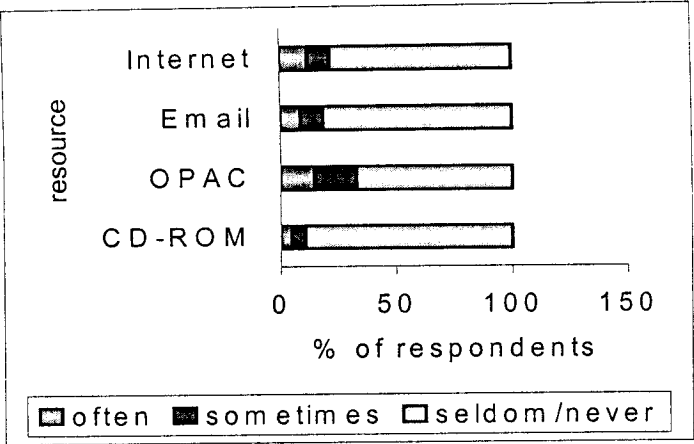
Students were asked to indicate in their levels of awareness of the availability of library-based IT resources and the frequency to which they put these resources to use. Figure 4.11 shows that 53% indicated that they were aware of the availability of the CD-ROM; 71.8%, OPAC; 70.6%, E-mail; and 74.7%, Internet/WWW. On the other hand, Figure 4.12 illustrates that 14.7% indicated that they used OPAC often or very often while 85.3% indicated that they seldom or never used it; 4.7% often or very often used CD-ROM while 89.3% seldom or never used it; 8.9% often or very often used E-mail while 91.1% seldom or never used it; 12.1% indicated that they often or very often used the Internet/WWW while 87.9% seldom or never used it.

Fig. 4.11: Awareness of availability of library-based IT resources



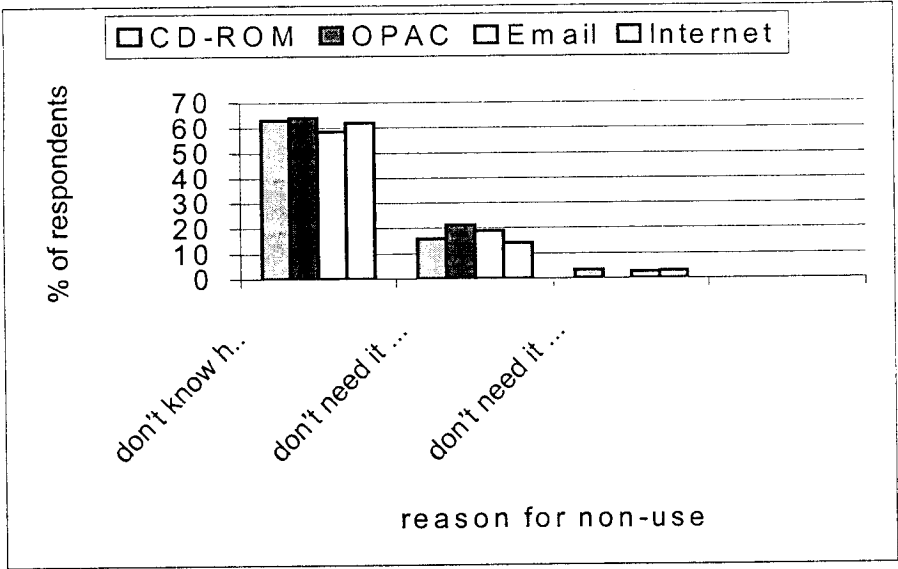
This study therefore reveals that, though the majority of the students were aware of the availability of the library-based information technology resources, very few used them. This suggests that awareness of the availability of resources is not in itself sufficient to ensure that users will make use of these resources. Awareness must be accompanied by ability to make use of the information resources. In other words, awareness and ability compliment each other.

Fig. 4.12: Level of usage of library-based IT resources



Respondents were asked to indicate why they seldom or never used the library-based information technology resources. Figure 4.13 shows that 63% did not know how to use CD-ROM, 15.7% did not need it for their course work while 3.2% did not need it for their research work. Approximately 64.1% did not know how to use the OPAC while 21.2% did not need it for their course work. About 58.5% did not know how to use E-mail, 18.9% did not need it for their course work while 2.6% did not need it for their research work. Sixty percent did not know how to use the Internet/WWW, 14.1% did not need it their course work while 3.0% did not need it for their research work.

Fig. 4.13: Reason for non-use of the available library-based IT resources



These results suggest that the majority of the respondents did not use the library-based IT resources not because they were not aware of the availability of these resources but mainly because they lacked the skills and the knowledge to use them. Most students largely depended on the familiar printed resources of information. Furthermore, the researcher is of the view that others did not use these resources because usage of these resources in their course work was either not emphasized or not required. As noted earlier, most academic faculty still rely on print media because they too, apart from having very low access to computing facilities, lack the skills to use these resources. It is important to provide user education to faculty in the library-based information technology resources so that they can appreciate that the use of these resources is no longer restricted to technologically based work but extends to all types of research and field of study.

Some of the reasons advanced for not using the library-based information resources include the inadequacy of the facilities, lack of awareness of the availability of the resources, poor booking arrangement, the constant breakdown of the equipment, and the high fees charged on the use of the Internet/WWW and the E-mail resources. One academic faculty respondent commented that computer services should be accessible to all the students to allow information exchange on matters relating to their areas of study with other universities in the world. Another academic faculty respondent also commented, "There must be at least three dozen Internet connected computers strictly for students' use and available round-the-clock. Internet connectivity and availability in the library are a must".

Comments from some student respondents indicate that some of them were still ignorant about the availability and use of these resources as may be seen from these comments; the first two are on CD-ROM and Internet, respectively:

"I don't know even where it is and what it means. What is this thing?"

"I don't know the importance of this. I just hear stories."

"Generally speaking many students don't know and are not aware of the availability of these library resources but view the library as a quiet place where one can study. I for one feel a bit embarrassed that I've been on campus for five years and yet I don't know about such services. As librarians remember that the first impression made on students from the start matters; it can paint a bad picture about what the library is".

Some respondents felt that the attitude of some library staff discouraged them from using IT resources, for instance they cited that some library staff used the computers for personal work and playing games and thus deprived users access to these resources. Perhaps the comments below express their frustrations better:

"Library staff should be more friendly. We are scared of using IT".

"Librarians should be taught that their job is to serve us willingly and not to act as though they bought the facilities with their own money. They are first of all employees and not owners of the library. And I hope this information you are collecting is not just to be 'black and white' but will be used to effectively make changes for the better. It should serve a purpose. We can't be answering surveys year after year without change".

"Library workers behave as though library resources e.g. computers are personal-to-holder and use them to play games when students need them for academic purposes".

One student summarized her/his reasons for non-use of the library-based IT resources saying:

"OPAC: often non-operational because of the constant breakdown of the server.

CD-ROM: always long queues; we are frustrated. We need more terminals.

E-mail: a lot of politics involved...no public relations.

Internet: it has been personalized...You find the same faces using it daily. Long queues. Booking never works".

4.6 The Role of Faculty in User Education Programs

Academic faculty were asked to indicate whether they were teaching courses that required students to use the library. In response, 89.1% ($n=57$) of all the academic faculty respondents indicated that they taught courses that required students to use library resources. Of these, 39.3% ($n=22$) usually and 37.5% ($n=21$) occasionally explained the use of indexes, bibliographies, handbooks, and reference tools to students. Though these responses are encouraging one library staff interviewed reported that some academic faculty were discouraged by the inadequate and poor library resources and had therefore stopped referring their students to the library. Another academic respondent who indicated that s/he never explained the use of indexes commented that s/he assumed that students knew how to use these resources. Perhaps the comment of one academic below speaks for many of the respondents:

"I simply tell the students where to get relevant information in the library".

Academic faculty teaching courses requiring library use were also asked to indicate the types of resources they expected their students to utilize. Of those who taught undergraduates, 98.0% expected their students to read from a recommended or required list of materials not on reserve; 95.9%, general reference books; 92.0%, discipline-oriented reference books; 91.5%, reserve materials; and 89.6%, materials located through use of card catalog, online catalog, CD-ROM databases, indexes, and bibliographies. Of those who taught graduates, all ($n=19$; 100%) expected their students to utilize reserve materials, general reference books, indexes, and bibliographies, dissertation abstracts and thesis catalogs, public library catalogs in the main library for author, subject and title searches; 94.7%, discipline-oriented reference books, indexes, and bibliographies; and 76.5%, interlibrary loan services. About 10.9% of the respondents expect their graduate students to utilize other sources like gray literature, government publications, newspapers, microforms, Internet/WWW sources, off-campus facilities, librarians, and faculty.

cover this aspect in their teaching. Library staff interviewed reported that cases where faculty members have taken their students for instruction in information skills after discovering inadequacies in them are few and isolated. Furthermore, it was reported that very few faculty members make any effort to find out whether these resources are available in the library. These results confirm Breivik's (1986) assertion that traditional approaches such as using textbooks, providing reading lists, and putting selected materials on reserve do not provide students with the information-handling skills required for continued learning after graduation. Neither do these approaches ensure that students will know if they are applying their problem-solving abilities to an appropriate information base. One library staff interviewed cited the case of the Faculty of Veterinary Medicine where the Japanese who had sponsored the establishment of the faculty did not encourage the use of the library. Instead they bought textbooks for student use. As a result students could go through a given program with only one title of a textbook. Such students do not value the library resources and services being offered.

4.7 The level of academic and administrative support given to the current user education programs

Academic faculty were asked to react to some statements that indicated ways in which students could learn about using library resources. Figure 4.14 shows that approximately 90.3% of the faculty did not agree with the statement "no instruction was necessary, students possessed necessary skills when they enter the University." About 67.8% of the academic faculty did not agree with the statement that "students should develop library skills independently, asking librarians if necessary". On the other hand, 72.6% of the academic faculty indicated that students could learn library skills through a required course such as Freshman English or Communication Skills where faculty and librarians collaborate in providing instruction on library skills. About 37.9% of the academic faculty also preferred a required course taught by librarians while 41.1% of faculty preferred a course taught by department faculty.

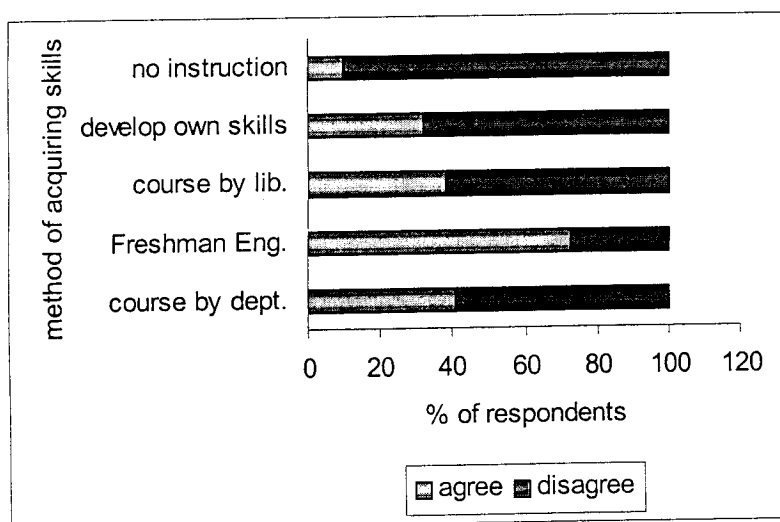


Fig. 4.14: Academic faculty's response to statements pertaining to ways through which students can acquire information skills

When asked as to who should be responsible for library instruction, 58.3% of the faculty agreed that library instruction is the faculty's responsibility while 63.9% agreed that library instruction is UNZA Library's responsibility. One academic faculty respondent commented that library instruction is a "multifaceted activity that requires collaboration between faculty and librarians". Only 6.5% of the faculty felt that "no instruction was necessary, students possess the necessary skills when they enter the university". Again only 28.8% of the faculty felt that students could develop library skills independently, asking a librarian when necessary.

Academic faculty were asked to indicate methods that UNZA Library can use to provide user education. Table 4.4 shows the types of library instruction that were suggested. About 95.1% of the academic faculty preferred library orientation tours. About 92% of the academic faculty preferred library handbooks and bibliographies. Approximately 65.6% of the academic faculty preferred classroom presentations on library skills and resources by librarians. About 41.4% academic faculty preferred an elective course designed to develop the knowledge and skills to do library research. Fifty-five percent

(55%) of the academic faculty respondents also preferred course-related instruction (bibliographies of reference sources or exercises).

Table 4.4: Types of user education programs preferred by academic faculty

| <i>Type of instruction</i> | <i>Percent</i> |
|--|----------------|
| <i>Library orientation tour</i> | 95.1 |
| <i>Library handbooks and bibliographies</i> | 92.1 |
| <i>Classroom presentations by librarians</i> | 65.6 |
| <i>Elective course</i> | 41.4 |

When asked for ways through which UNZA Library could improve its services related to user education, the respondents suggested producing publications such as handbooks, brochures, handouts, and guidebooks. Some respondents suggested publication of manuals and subject bibliographies, which should be updated regularly. In addition, others felt that librarians should aggressively market their services.

The above findings are very encouraging. These results indicate that academic faculty are willing to have user education formally introduced in their courses. Most academic faculty and students commented that both the UNZA Library and academic faculty should be responsible for instructing students in the use of library resources. One academic faculty respondent commented that there should be an optional course in library instruction. Another academic faculty respondent suggested that "it should be made mandatory for all new students to learn how to use the library resources and services". Yet another one felt that "it is incumbent upon library staff to explain to students how to access and use various library resources and services. This should be done at least twice for students at all levels of their study (i.e., 1st year, 2nd year, 3rd year, etc.)". These findings suggest that some academic faculty recognize the need for user education, what is lacking is sufficient impetus to get instructional programs underway. The library staff interviewed generally agreed that interest and support from within the institution (from departments, faculties and executive) was there, though at a low level; however, it needed cultivating. Therefore these findings suggest that the lack of a comprehensive formal user

education at UNZA can not be entirely attributed to lack of academic faculty support but failure of the librarians to take an initiative to introduce it. As one library staff observed "library staff have never proposed a user education program to Senate". Since user education is essentially a library-based activity, library staff must be proactive in marketing it. Library staff should take advantage of these receptive attitudes from faculty. Accordingly, librarians must become assertive, for example, through attending committee meetings and planning sessions and actively selling the necessity for user education by stressing the positive pay backs which will benefit all in the long term (Gentil, 1999). Librarians should initiate user education; should be assertive to be appointed to curriculum committees and to meet with Deans of Schools and Heads of Departments. Aitchison (1998) points out the need for library input and initiative in course planning to ensure library materials are available and that students are capable of accessing the information they require. The cooperation of teaching staff in pooling knowledge, arriving at decisions on content and timing of instruction, as well as ensuring that references given are accurate is all vital if instruction is to be relevant (Mayfield, 1985; Radford, 1980; Tiefel, 1995; Zondi, 1992).

4.8 Problems affecting the current user education programs

One library staff interviewed commented that "the level of commitment to the teaching of information skills is very low and is unfortunate because most of the students come from schools and places where libraries are non-existent. Most students see a 'proper' library for the first time at the university. Therefore it is unwise to assume that students are familiar with the library". The interviewee went on to explain that "one of the reasons for this state of affairs is the low level of staffing in the library-staff who are aware of the type of services they are supposed to provide to students. Library staff who had no orientation when they were students also assume that students will manage on their own". Consequently, users did not realize that the Reference Desk was the heart of the library. This was attributed mainly to the fact that the Reference department was usually poorly staffed in spite of the fact that this is the frontline of library services. At the time of the survey a Graduate Assistant Librarian supported by one Library Assistant staffed the Reference Desk. The Reference Librarian was expected to attend to readers' queries,

Another problem that was mentioned by all library staff interviewed was lack of financial support from the University management. It was reported that the library had had no budget since 1993. The library heavily depended on donations from overseas organizations. Lack of funding has crippled the library and this has impacted negatively on the library. Consequently, the library has very outdated resources. It was felt that if the Library was well funded and well stocked it would be easy to convince the academic faculty about the importance of user education. One of the interviewees said "librarians find it embarrassing to provide user education on outdated resources". These views were earlier confirmed in the Report of the Commission of Inquiry appointed to look into operations at the University of Zambia and the Copperbelt University (Republic of Zambia, 1998). The findings of the Commission were that the university management had not released funds to the Library between 1993 and 1996. It was also reported that University management marginalised the University Librarian and therefore he could not influence the academic faculty and the executive on library matters.

4.9 Summary of respondents' comments

Question 16 on the academic faculty questionnaire and question 25 on student questionnaire were optional and were intended to solicit free comments from academic faculty and student respondents about their desires and the relationship of the university library to their academic careers. Respondents were asked to give suggestions, appraisals and criticisms about the library system. The need to acquire relevant books and journals (40%) topped the list, followed by the need for improved user instruction on library-based information technology resources (30.7%), increase in IT resources (19%), increased opening hours (12.7%), improvement in library public relations (9.6%), improved publicity (7%), improved physical premises (6%), and improved access to the Special Collections, Serials and Short Loan Collections (6%). Below is a detailed record of the responses.

i. Poor physical premises

Some respondents complained about the filthy malfunctioning toilet facilities; unkempt floors and dusty shelves which results in damage to library collections; and

poor ventilation and poor lighting particularly in the passages and staircases. They suggested that the physical premises particularly toilet facilities, ventilation and lighting should be improved. An academic faculty respondent suggested that there should be telephone facilities, cafeteria for drinks, and ablution rooms. It was also reported that the Medical Library has no toilet facilities. This is causing a lot of hardships on both library staff and users. The challenge is to provide better conditions in the library than is available elsewhere on campus.

ii. Inadequate reading space

Some student respondents observed that reading tables and chairs were inadequate, especially during peak periods such as examination times, thus forcing them to scramble for these facilities. The respondents made strong appeals to library management to discourage readers who permanently “reserve” tables and chairs in the library by leaving their personal items on them. This practice denied other readers the opportunity to use the library.

iii. Wrong shelving of books

Some respondents complained about the poor shelving of books. Books take long to be shelved after they have been returned. It was also observed that some readers deliberately shelved books in wrong places so that others could not have access to them. Respondents therefore strongly appealed to the library management to find a way of solving this problem.

iv. Poor sign posting and shelf labeling

Some respondents also cited a problem about the poor labeling of shelves and lack of signposts to guide readers to the information resources and services. Most of the shelf labels are old and in a state of disrepair. Some respondents observed that library users who were shy to approach library staff for assistance would easily find their way around if there were good signposts.

v. Inadequate library-based information technology resources

Approximately 19% ($n=67$) of the student respondents complained that IT resources were inadequate; that there were too many restrictions on access to them, and about the charging of access to Internet and E-mail facilities. Many respondents also complained about the poor policies governing the use of CD-ROM resources. There

were also complaints about the constant breakdown of the equipment. It was suggested that the Library should provide simply but adequate printed guides and manuals of these resources. Furthermore, the library should introduce a compulsory course in the first year on the use of these resources. Permanent qualified instructors should be employed to run such courses. Lastly, it was suggested that the IT resources should be adequately publicized to users.

vi. Inadequate current library stock

Most ($\underline{n}=138$; 38.9%) of the respondent students complained about inadequate library stock. They reported that most of the library stock was old, outdated, irrelevant and inadequate. Respondents appealed for acquisition of latest relevant library materials including periodicals and reference resources. Given the limited financial resources in the library, the challenge lies in the ability of the library management to lobby for increased budgetary allocation so as to ensure adequate provision of these resources.

vii. Unfriendly library staff

Some student respondents ($\underline{n}=34$; 9.6%) were not happy with the attitude of some library staff, which they considered to be unfriendly. This hindered most of the respondents to seek help from library staff. While many of the problems faced by students stem from lack of awareness and inadequate user education programs, a significant number also stem from lack of concern portrayed by library staff. The study has revealed that very few students (6.3%) frequently approach library staff for assistance when faced with an information need. Feelings of intimidation, inadequacy, anxiety and frustration are the main reasons for this lack of interaction, although some students simply feel that library staff are "of not much help anyway". A significant part of the problem is the attitude of the library staff. As already pointed out, some library staff consider user education to be spoon-feeding and are therefore not willing to offer assistance to students. This is caused in part by the inadequate coverage of user education during the training of librarians at all levels. Most library staff therefore do not fully comprehend the significance of user education. There is need for extensive and intensive re-education of library staff. Library staff of all categories, particularly those, who are operating service points like the Issue Desk, should be friendly and helpful to library users. These solemn revelations underscore the need for

adequate professional staff and the struggle for cordial relationship between students and library staff. This is a challenge library management should incorporate in their staff training programs on both short term and long term basis.

Some comments from student respondents expressed dissatisfaction in the manner some library staff conduct themselves. Some student respondents appealed to library staff to change their work culture. Perhaps quoting a few comments will suffice:

"Library staff should be very understanding and accommodating. Those workers who feel they are tired should resign on moral grounds instead of doing nothing there."

"Accountability and a sense of responsibility should be instilled among librarians. They should be committed to their work; not just saying, no this book is overdue but you can't pay if you give me something for lunch".

"Our library staff should be efficient, rational and effective in discharging their duties".

"Library staff should be exposed to other libraries in the region to see and check contemporary state of the art in the field of librarianship".

"The Circulation Desk (at Medical Library) must always have somebody around. It annoys us to wait for the library staff who often like sitting in the 'side room' instead of sitting at the Issue Desk. The bell, which used to be at the Issue Desk, should be brought back. Library staff should not feel inconvenienced by the ringing of the bell. They should be seen to be doing their job willingly".

One academic faculty respondent also observed that "there were too many library staff working in one small branch library, the Samora Machel Veterinary Library. This has resulted in the staff spending most of their time sitting idly". Library management must prioritize the allocation of staff and allocate more staff in the Main Library, which is adversely hit with staff shortages at all levels.

viii. Inadequate library opening hour

Some respondents complained about the delay in the opening of the library especially during the weekends. They also felt that the opening hours were inadequate and, therefore, ought to be extended.

ix. Poor retrieval tools

Many respondents complained that the catalogs were poor and did not match with the library stock and therefore needed to be updated. Some of the materials appearing in the catalogs were not appearing on the shelves and vice versa. This frustrated users and discouraged them from using the catalogs. They also felt that information retrieval tools used in the Special Collections catalogs were difficult to use and needed simplification. Others also noted that the Serials Collection lacked a comprehensive index of the available periodicals thus making retrieval of periodicals difficult and frustrating. It was also noted that the number of terminals for the OPAC was inadequate.

x. Access to the materials in the closed access areas

Some student respondents complained that it was difficult to access information sources in the closed access areas like the Special Collections, Serials and Short loan because of the too many restrictions imposed on the use of these areas. Library users apart from faculty and postgraduate students were required to obtain a letter from their academic faculty requesting library management to allow them to use the Special Collections. Use of the Special Collections by undergraduates was limited to two weeks. It was generally felt that all library users should be given free access to these services at all times. It was observed that the Special Collections and Serials were not open during the night operation hours and over the weekends. Yet these were periods when most users were free from classes and needed to carry out research. Most respondents suggested that opening hours should be extended including on the weekends and during examination periods.

xi. Poor communications and public relations

Despite the availability of a suggestion box at the main entrance of the library, some respondents still proposed that a suggestion box should be introduced in the Library. This indicates that some users are not aware of the existence of this facility. One respondent felt that librarians were not taking seriously the suggestions of library users. The library can improve its publicity by using the Bulletin Board on the OPAC module. Important developments taking place in the Library can be announced through this facility. Users

can be informed of new additions. Furthermore, selective dissemination of information (SDI) can be introduced through the same facility and the use of E-mail.

4.10 Hypothesized findings

Three hypotheses were tested to determine whether: ability to use library resources had influence on academic success of students; instruction had influence on the level of use of information resources; and whether awareness of availability of library resources had an influence on level of use of information resources.

The following null hypotheses were tested:

1. Students do not perceive that ability to use information resources has an influence on their academic success.
2. There is no relationship between user education and ability to use information resources.
3. There is no relationship between students' awareness of the available information resources and students' use of these resources.

Chi-square (χ^2) and Fisher's exact tests were conducted using SPSS to determine the relationships and significance in a selected set of ten pairs of variables (see Table 4.5 through 4.8 and Appendix A). The decision rule was stated as follows:

If χ^2 is smaller than .05, reject hypothesis.

If χ^2 is bigger than .05, accept hypothesis.

The hypotheses were tested at .05 levels of significance, which conforms with testing levels in the social sciences. According to Levin (1981), there is no single standard or universal level of significance for testing hypothesis. In some instances a .05 level is appropriate and in others, especially for published research results, tests are done at .01 level of significance. However, Levin cautions that it is important to bear in mind that the higher the significance level used for testing hypothesis, the higher the probability of rejecting a null hypothesis when it is true. On the other hand, one who uses a .01

probability level rather than .05 as criteria for rejecting a null hypothesis reduces the number of correct null hypotheses that are likely to be rejected but simultaneously increases the number of incorrect null hypotheses which are likely to be accepted (Watson and McGaw, 1980). It was for these reasons that the researcher selected the .05 as a criterion for rejecting or accepting the null hypotheses.

Ability to use various library resources, awareness of availability of those resources and provision of instruction on usage of these resources were all significantly associated with corresponding student success and usage of these resources.

Table 4.5: Summary Table of two-way Chi-square and Fisher's exact tests

| Pairs of Variables | Significance level |
|---|--------------------|
| 1. <i>Ability of student to use the library with</i> <i>Influence on student's success</i> | 0.000 |
| 2. <i>Ability to use abstracts and indexes with</i> <i>Usage of indexes</i> | 0.000 |
| 3. <i>Awareness of availability of CD-ROM with</i> <i>Usage of CD-ROM databases</i> | 0.000 |
| 4. <i>Awareness of availability of OPAC with</i> <i>Usage of OPAC</i> | 0.000 |
| 5. <i>Awareness of the availability of E-mail with</i> <i>Usage of E-mail</i> | 0.000 |
| 6. <i>Awareness of availability of Internet with</i> <i>Usage of Internet</i> | 0.000 |
| 7. <i>Instruction on CD-ROM with</i> <i>Usage of CD-ROM</i> | 0.000 |
| 8. <i>Instruction on OPAC with</i> <i>Usage of OPAC</i> | 0.000 |
| 9. <i>Instruction on E-mail with</i> <i>Usage of E-mail</i> | 0.000 |
| 10. <i>Instruction on Internet with</i> <i>Usage of Internet</i> | 0.000 |

Null Hypothesis 1: Students do not perceive that ability to use information resources has an influence on their academic success.

Table 4.6: Ability to use library resources by Influence on academic success

| Influence on academic success | | | | | Total |
|------------------------------------|------|----------------|------------|-------|--------|
| | | | frequently | none | |
| Ability to use library resources | Good | Observed | 156 | 20 | 176 |
| | | Expected Count | 130.9 | 45.1 | 176.0 |
| | Poor | Observed | 105 | 70 | 175 |
| | | Expected Count | 130.1 | 44.9 | 175.0 |
| Total | | Observed | 261 | 90 | 351 |
| | | Expected Count | 261.0 | 90.0 | 351.0 |
| | | | 74.4% | 25.6% | 100.0% |
| $\chi^2=37.741, df=1, Sign.=0.000$ | | | | | |

The null hypothesis was rejected at P-Value 0.00. The results in Table 4.8 appear to suggest that students perceive that ability to use library resources contributes to successful completion of a study program.

Two hundred and sixty-one respondents indicated that ability to use library, frequently or sometimes, had an influence on their success as students. Of these, 59.8% rated themselves good or excellent at making use of library resources for assignments, term papers or projects while 48.2% rated themselves fair or poor. On the other hand, ninety respondents indicated that ability to use library resources had no influence on their success as students. Of these, 22.2% rated themselves good or excellent at making use of library resources for assignments, term papers or projects while 77.8% rated themselves fair or poor. These results seem to suggest that there is a strong association between ability to use the library and the way students perceived the influence of the library on their success.

Null hypothesis 2: There is no significant relationship between user education and ability to use information resources.

Table 4.7: Instruction on CD-ROM by Use of CD-ROM

| Use of CD-ROM | | | | | Total |
|---|---------------|----------------|-------|-------|--------|
| | | | often | never | |
| Instruction on CD-ROM | at least once | Observed | 41 | 25 | 66 |
| | | Expected Count | 14.5 | 51.5 | 66.0 |
| | never | Count | 32 | 234 | 266 |
| | | Expected Count | 58.5 | 207.5 | 266.0 |
| Total | | Count | 73 | 259 | 332 |
| | | Expected Count | 73.0 | 259.0 | 332.0 |
| | | | 22.0% | 78.0% | 100.0% |
| $\chi^2=77.350, df=1, \text{Sign.}=0.000$ | | | | | |

The null hypothesis was rejected at P-Value 0.00. These results would appear to suggest that there is a strong relationship between library instruction and the level of use of CD-ROM.

Sixty-six respondents indicated that they had received instruction on the use of CD-ROM at least once. Of these, 62.1% indicated that they often or very often used the CD-ROM while 37.9% indicated that they seldom or never used CD-ROM. On the other hand, two hundred and sixty-six respondents indicated that they had never received instruction on the use of CD-ROM. Of these, 12.0% often or very often used CD-ROM while 88.0% seldom or never used CD-ROM. Therefore, the results seem to suggest that there is a strong correlation between instruction and the level of use of CD-ROMs. Similar results were obtained when instruction on use of OPAC, E-mail and Internet were crosstabulated with level of use of the same.

Null hypothesis 3: There is no significant relationship between students' awareness of available information resources and services and the use of these resources and services.

Table 4.8: Aware of availability of CD-ROM by Use of CD-ROM

| | | | Use of CD-ROM | | Total |
|---|-----|----------------|---------------|-------|--------|
| | | | often | never | |
| Aware of availability of CD-ROM | Yes | Observed | 71 | 105 | 176 |
| | | Expected Count | 39.7 | 136.3 | 176.0 |
| | No | Observed | 3 | 149 | 152 |
| | | Expected Count | 34.3 | 117.7 | 152.0 |
| Total | | Observed | 74 | 254 | 328 |
| | | Expected Count | 74.0 | 254.0 | 328.0 |
| | | % of Total | 22.6% | 77.4% | 100.0% |
| $\chi^2=68.720, df=1, \text{Sign.}=0.000$ | | | | | |

The null hypothesis was rejected at P-Value 0.00. The results therefore seem to suggest that there is a strong relationship between awareness of availability of CD-ROM and level of use of CD-ROM.

Seventy-four respondents indicated they often or very often used CD-ROM. Of these, 95.9% were aware of the availability of CD-ROM services while 4.1% were not. On the other hand, two hundred and fifty-four respondents indicated that they seldom or never used CD-ROM. Of these, 41.3% indicated that they were aware of the availability of CD-ROM while 58.7% were not. Therefore these results seem to suggest that there is correlation between awareness of the availability of CD-ROM and the level of use of CD-ROM. Similar results were obtained when awareness of availability of OPAC, E-mail and Internet were crosstabulated with level of use of the same.

The results indicate that students perceive that ability to use library resources and services has influence in their academic success. Therefore students are likely to have a positive attitude toward the library. Furthermore, the above chi-square test seems to

suggest that there is a strong correlation between instruction and level of use of information resources like OPAC, CD-ROM, E-mail and Internet. Instruction seems to improve students' ability to use these resources. This suggests that the level of use of information resources will increase if students are given a comprehensive instruction on the use of information resources. The results also indicate that there is a correlation between awareness of information resources and the level of use. These results confirm the unhypothesized findings discussed earlier. Lack of knowledge about these resources and difficulty in using them were common reasons for non-use of the CD-ROM, OPAC, E-mail and Internet. Perhaps this remark from a student respondent is an indication of the level of student awareness of the importance of information and information skills to their studies:

"Information today is a critical resource. Success depends on the availability and quality of information at one's disposal. Research and scholarly skills hinge on the use of the library".

4.11 Summary

This chapter has presented and analyzed all the data collected in this study. The first part presented the descriptive analyses of academic faculty, student and library opinions regarding the effectiveness of user education programs at UNZA. The second part presented the findings of the hypotheses tests.

Overall, the data has shown that, the current user education program, which consists mainly of library orientation, is inadequate and does not meet students' needs. The program lacks a written policy and objectives and is not reflected in the mission statement of the library. The library, therefore, lacks commitment to educate users. Lack of a user education policy has also robbed off the current user education program a basis for self-evaluation. In addition, lack of a comprehensive user education program has left students inadequate in the different knowledge and skills necessary to effectively make use of library resources.

Some courses run in the faculties of Humanities and Veterinary Medicine with components of library skills need to be strengthened and library staff should take advantage of these courses to advocate for course-integrated user education programs in the university curriculum.

The major barriers to user education cited by respondents are inadequate number of committed library professionals to conduct user education, limited time allocated for the program and lack of support from academic faculty and library management.

Students' library use appeared to be solely curriculum oriented and highly related to the style of teaching adapted by the faculty. Students appeared to be heavy users of the short loan collection, prepared lists, and lecture notes. It was also evident from the data that the necessity to complete assignments, copy notes from friends, and read own materials were major motivators for students' use of the library. The implication of this finding is that the teaching methods employed do not adequately encourage independent learning.

Instruction in library use was also a factor that dictated students' level of usage of library resources and services. Students who had adequate knowledge of the available library resources and services and how to use them appeared to be more likely to use the resources than those who did not know how to use them. In fact, the usefulness and type of user education a student received was found to be a good forecast of use of library resources and services.

According to the data, the possible causes of non-use of the library resources and services were absence of user education, lack of awareness of the available library resources and services mainly caused by lack of publicity and current awareness services, physical inaccessibility of materials and services, inadequate library collections and IT resources, poor policies and procedures, the unfriendly attitude of some library staff and poor physical premises.

CHAPTER 5

DISCUSSION, CONCLUSION AND RECOMENDATIONS

"Where there is no vision, the people perish."
Proverbs 29.18 (King James Version)

5.1 Introduction

The findings of this research have been based on the assessment of the effectiveness of the current user education programs at the University of Zambia. The study sought to answer the following research questions:

1. What types of user education programs are being offered for all categories of students at UNZA? How effective are these user education programs?
2. Are students aware of the available library-based IT resources? What skills do students need to access these library-based IT resources?
3. What is the role of faculty in the current user education programs?
4. What are the problems affecting the currents user education programs?
5. How much academic and administrative support do the current user education programs receive?

In order to answer the above research questions, data were collected from respondents through closed and open-ended questionnaires and structured interviews. Out of the 523 questionnaires that were distributed to students, 355 (67.9%) were received whereas out of the 66 questionnaires that were distributed to faculty, 64 (97%) were received. Furthermore, Six professional librarians were interviewed.

5.2 Summary of the findings

The main findings were:

1. The current user education programs at the University of Zambia mainly consist of library orientations in the form of guided tours. It was found that programs are inadequate in content, timing and approach. The programs lack a written policy and objectives and are not reflected in the mission statement of the library.
2. The study revealed that the majority of the students were aware of the availability of library-based information technology resources but lacked skills to use these resources and as a result these resources were underutilized.
3. It has also been revealed in the study that apart from academic faculty in the Faculties of Humanities and Samora Machel Veterinary Medicine, the level of academic faculty's involvement in user education is generally very low. Academic faculty in Humanities and Samora Machel School of Veterinary Medicine run courses that have components of library skills. Most academic faculty are not involved in the teaching and giving of instruction on how to use various library resources and literature sources relevant to the requirements of their specific disciplines.
4. The major problems affecting user education were a lack of a user education policy, lack of professional library staff, and lack of commitment from both library management and university management. Other barriers identified were lack of publicity and current awareness services, poor physical premises, inadequate library collections and information technology, and the unfriendly attitude of library staff.
5. The study has revealed that most academic faculty are in support of the introduction of a formal user education program where the academic faculty and librarians work in partnership. However, there was a general lack of support from university management in terms of funding.

5.3 Discussion

5.3.1 The current user programs

The study has established that the current user education program being offered at the University of Zambia consists mainly of library orientation largely in the form of guided tours. These programs have been found to be inadequate in content, timing and approach. The weaknesses center on the following areas: duration, number of students, timing of the programs, lack of academic involvement, lack of teaching aids, lack of feedback from the participants, ignorance of the value of user education among library staff, and the lack of a user education policy.

It was observed that library orientation is done at the beginning of each academic year when students are preoccupied with becoming acquainted with their lecturers, course registration, securing accommodation, and a host of other pressing problems. The groups involved taken on library tours are usually too large to command any attention. Furthermore, the duration is too short for students to know how to adequately use all of the library resources and services. Worse still there is a lack of teaching aids and handouts; instead there is a heavy dependency on students' memory at the time when their minds are preoccupied with other matters they consider to be more important than the library. Consequently, what is learnt is quickly forgotten. Academic faculty are not usually involved in the programs and as a result less value is given to the library orientation programs. It was further reported that the programs lack a written policy and objectives and are not reflected in the mission statement of the library. Lack of a written user education policy as Fidzani (1995) rightly points out robs the program the ability of self-evaluation and leads to lack of administrative commitment. Mnjama (1994) also corroborates that unless the objectives of a user education program are clearly articulated in user education policy paper, the university senate would find it extremely difficult to approve it. The study has also revealed that there is no evaluation undertaken and, as a result, the library does not know whether the users are benefiting from this program. The

findings of this study confirm findings made by previous researchers like Fjallbrant and Malley (1984), Fidzani (1995), Mnjama (1994) and Alemna (1982).

5.3.2 Awareness of the available library-based information technology resources

The study has also revealed that though the majority of the students are aware of the availability of library-based information technology resources they seldom or never use these resources. The major reason given is that the users lack the skills to use these resources. The study reveals that there is no formal instruction on the use of library-based IT resources. Furthermore, instruction on the use of IT resources was not compulsory and was only done at the request of a user, except at the Medical Library. The researcher also observed that the library did not plan for user instruction at the time IT resources were being installed. This finding is consistent with the earlier findings of Fidzani (1995) who reports that none of the Southern African university libraries she had surveyed included instruction on the use of the Internet in their user education programs. There is therefore a need to provide instruction in the use of these resources. Furthermore, other factors like inadequacy of the workstations, poor policy and procedure with regard to access to these resources, unfriendly attitude of library staff, and constant breakdown of the equipment also contribute to the non-use of these resources. These findings suggest that the availability of resources, awareness of these resources and instruction in the use of these resources are correlated. The library therefore should provide sufficient resources, publicize these resources adequately, and provide comprehensive instruction in the use of these resources.

5.3.3 The role of academic faculty in the current user education programs

The study has revealed that apart from academics in the Faculties of Humanities and Samora Machel Veterinary Medicine, academic faculty's level of involvement in user education is very low. The Faculties of Humanities and Samara Machel Veterinary Medicine have components of library instruction in their courses. However, it was reported that library staff have not taken an initiative to involve themselves in these

programs mainly due to lack of a forward looking approach on their part. The researcher is of a view that if these programs were strengthened they can be used to lobby for improved user education that caters for all categories of students. Librarians can venture into joint teaching efforts with academic faculty in the courses where there is a component of library skills and thus gain recognition and support from the academic faculty.

5.3.4 Major problems affecting the current user education programs

The major problems affecting the current user education programs were a lack of a user education policy, lack of professional library staff, lack of commitment from both library management and university management. Other barriers identified were lack of publicity and current awareness services, poor physical premises, inadequate library collections and information technology, and the unfriendly attitude of library staff. These findings confirm earlier findings by Fidzani (1995) and Boakye (1999).

The major impediment to user education reported in the study is the lack of professional staff. As mentioned earlier, there were only six professional librarians, at the time the research was being conducted, in the whole UNZA Library system. This number is too inadequate to handle all the professional duties. As a result the professional librarians get encumbered with administrative duties and the public and technical services are left in the hands of junior library staff who may be lacking the skills.

The study has revealed that there is low commitment to user education from library staff because much emphasis is placed on materials collection and processing. This has also led to the neglect of reference and public services. Consequently, user education at UNZA and in the country as a whole has not been a major focus; a dearth of literature on this subject attests to this assertion. This finding is in line with the earlier findings of Daniel (1983) and Kirk (1974). The root cause of this lack of commitment to user education by library staff has been partly attributed to poor training of library staff at undergraduate and graduate levels in the library schools. User education is given little

emphasis in library schools and as a result the graduates of these schools lack a deep understanding of the subject. Lack of a deep understanding of user education has contributed to the failure of librarians to take an initiative to lobby for the introduction of formal user education programs in the university curriculum.

Contributing to the low commitment to user education among library staff is the nature of the current administrative system whereby the provision of user education is the responsibility of the Readers' Services Librarian who in turn depends on voluntary staff from all divisions. The study has revealed that the Readers' Services Librarians is faced with a lot of job activities, which include selection, collection building, supervision of staff, and provision of reader's advisory and reference services. Consequently, s/he could not cope with the demands. This problem has been worsened by the under staffing in the Readers' Services Department. Consequently, library instruction is not well coordinated and has been reduced to library orientation only. There is, therefore, a need to reorganize the provision of user education in terms of staffing and provision of materials, equipment and space.

The lack of teaching skills was frequently mentioned in the interviews with library staff as a major impediment to the running of effective user education programs. Therefore, those librarians lacking teaching skills were not inclined to library instruction but instead emphasized non-instruction functions. These findings are in line with the findings of Cowley (1988) who reports that librarians lacking teaching abilities tended to take refuge in other duties. The library management needs to address this issue through provision of continuing education to library staff through short-term programs in-house workshops, and seminars and long term programs.

The study has revealed that there is a variation in the provision of user education. Generally, at the Main Library there is more concentration on library orientation and a lack of post-orientation programs, whereas at the Medical and Samora Machel Libraries there are some amounts of post-orientation programs. Such a disparity could be attributed to a number of factors including a lack of institutional user education policy, the different

levels of receptivity in faculties and departments, and willingness of professional librarians to engage in user education. Lack of user education policy has also contributed to the lack of administrative commitment.

The lack of evaluation of user education programs is a serious weakness in the case for any increase in this activity. The library needs to assess the value, results and intellectual underpinnings of its work if a stronger case is to be made. There is need to set objectives, consideration of content and a willingness to revise or review teaching methods in the light of learning theories and wider academic developments (Cowley, 1988).

5.3.5 The level of academic and administrative support for user education

The study has revealed that academic faculty are in support of the introduction of a formal user education program where the teaching staff and librarians work in partnership. Fjallbrant (1990a) has observed that good relationship between academic faculty and library staff is of great importance for the establishment and development of a user education program. The successful user education programs are those which are closely related to the academic courses provided by the institution-thereby increasing student motivation. She further reports that most academics, if questioned, say that student use of the library is desirable (a "good thing" rather like apple-pie!); yet they may not, in practice, promote the use of the library-and certainly not at the expense of time for their courses! In the interviews it was reported that there is a lack of determination on the part of the library staff in pressing for a formal user education program. It was further revealed in the interviews with library staff that the mood of the library staff is frequently reactive rather than proactive. Therefore the library needs to practice its assertiveness and market itself adequately. Librarians should spend more time on liaison activity with academic faculty by participating in curriculum formulation, disciplinary committee, etc. Cowley (1988) argues that how well a library succeeds in extending its role, particularly in the area of information and study skills, depends on the quality of performance, the caliber of leadership, the initiative of the individuals and the assertiveness and good political sense of all involved.

5.4 Conclusion

The study has embraced an evaluation of the elements that go into the management of library user education at UNZA. Its main conclusion is that a library user education program is an essential element in university education. The study affirms the potential value of the library to the academic curriculum offered at UNZA. It further confirms that user education is equally valuable in the preparation of all those who pass through university education. It has become explicit from the study that maximum exploitation of library resources is crucial to university education especially in this age where rapid global technology changes place much emphasis on obtaining and appropriately utilizing information.

5.5 Recommendations

The study has identified the following major elements as prerequisites for a successful and effective library user education program at UNZA: the formulation of a Library User Education Policy, the establishment of a Library User Education Committee, the creation of a Library User Education Unit, the appointment of qualified and competent librarians, and provision of adequate funds and adequate publicity.

5.5.1 Library User Education Committee

It is suggested that a Library User Education Committee be established at UNZA. The functions of this committee should include the following:

- a. To identify and evaluate the instructional needs of library users at UNZA Library.
- b. To formulate relevant policy recommendations, develop goals and programs to address user needs and coordinate the implementation of the library instruction programs.

- c. To design and conduct evaluations of all components of the instruction program and use the results to revise, redefine, improve, and expand current programs.
- d. To coordinate and develop guidelines for effective instruction, including classroom lectures, printed material, and World Wide Web.
- e. To keep itself informed of new developments in the library instruction field and recommend appropriate developments for inclusion in UNZA Library's user education program. The committee should meet at least once a semester or more, as necessary.

The study recommends that the User Education Committee should be composed of representatives from all faculties of the University, the Bursar's office, and Registrar's office and senior library staff. The Head of the Department of Library and Information Studies or the Dean of the Faculty of Education should chair it. The secretary should be the Deputy Librarian. Membership should be based on ability and willingness to devote much time to the success of the program. It is further suggested that this committee be a subcommittee of the Senate Library Committee.

5.5.2 Library User Education Survey

The study recommends that a detailed survey should be conducted to assess the needs of the library's academic community for orientation to the library's facilities and services and for instruction in the use of the library's collections and bibliographic structure. Furthermore, a written profile of the community's information needs must be prepared. Such a survey must also serve to evaluate and analyze the political environment, existing support, and the level of institutional cooperation, as these factors are crucial in determining the most viable structure for a user education program.

5.5.3 User Education Policy

This study recommends that a User Education Policy be developed to guide the activities of UNZA User Education Programs. The policy should clearly:

- a) Determine immediate and long-range goals with projected timetables for implementation;
- b) Be directed to specific identified needs within the academic community, and permits various methods of instruction for all segments of the academic community who have a need to use library resources and services;
- c) Outline methods by which progress toward the attainment of instructional objectives can be measured. Methodology must provide for measures of learning, attitude and cost.

5.5.4 Program coordinator and User Education Unit

The study recommends that for the Library to take charge of the design, organization and execution of an effective user education program, a unit should be created to coordinate all user education programs at UNZA Library. This user education unit should be on equal status with other library departments and should be charged with the responsibility of organizing and executing library user education programs. The unit should be equipped with a basic collection of key reference tools and books for background and professional reading on user education, equipment and teaching aids. It should also retain course outlines and worksheets produced by the instructors and those collected from other programs for easy access and as a useful reference in sharing and developing new approaches to teaching.

Since user education is as important as any other library service, the unit should be headed by someone of equal status to the head of references services or technical services division. This will avoid user education being shunted aside because there is no one assigned a responsibility to implement it. Provision of a coordinator gives the program a sense of direction. The coordinator should be knowledgeable about teaching

methodologies; possess personnel management, budget and planning skills; be knowledgeable about measurement and evaluation of library services and programs; be able to recognize and target user groups and meet their needs (Pastine, 1984). The commitment from other staff members leads to a better-coordinated and more widely accepted program. The unit therefore must work together with the Library User Education Committee.

The coordinator should be charged with the following responsibilities as suggested by Dyson (1975):

1. Providing orientation and instruction to lower division undergraduates. Typical activities should include:
 - a. Participating in campus-wide orientation programs for new students;
 - b. Preparing library guides, self-guided tours, and other aids to general library orientation to the Main library and branch libraries;
 - c. Acting as an advocate of user education, and working with faculty to integrate such instruction into classes; and
 - d. Acting as course for coordinator and teaching a section of the non-specialized credit course in user education.
2. The coordinator should assist with upper-division and postgraduate level instruction through:
 - a. Acting as a contact person for faculty and putting them in touch with the appropriate librarians;
 - b. Serving as a resource person to the reference and subject librarians for providing such instruction;
 - c. Assisting with the selection and preparation of classroom materials (including teaching aids) for such instruction; and
 - d. Serving as a backup instructor.
3. The coordinator should regularly work some hours at major service points in the system, including Circulation Desks and Reference Desk.
4. The coordinator should have the following administrative responsibilities:
 - a. Collecting and organizing statistics on library instruction in the library system;

- b. Preparing an annual report on orientation/instructional activities within the system;
- c. Training and supervising staff assigned to the instruction User Education Committee;
- d. Sitting ex officio on the User Education Committee; and
- e. Participating in other library university committee work as appropriate.

It is further recommended that there be greater staff involvement in user education. Reference librarians, serials' librarians, special collections librarians, and technical services librarians, should give instruction. The base of those willing to teach should be expanded by encouraging additional librarians to participate in the program through team teaching or presenting one aspect of the course. This will help avoid overloading and burning out existing instructors. The coordinator should be responsible for administration of much of the program, as suggested above. S/he is expected to keep in touch with developments in the user education field. The coordinator should contact faculty interested in user education programs. S/he should be active in selling the programs both to faculty and to other librarians. Dyson (1975) observes that most effective user education programs are the ones that involve a large number of library staff members. Where one or two staff members do all the teaching, there is considerable chance of friction developing between the user education unit and other public service units. Finally, adequate support staff (clerical, technical, etc.) must be provided.

5.5.5 Administrative support

Haynes (1996) observes that library administrators play a pivotal role in the development of effective, campus-wide user education programs. Their decisions and policies will largely determine whether or not instruction is essential and central to the mission of the library, the relative priority of user education in the organizational structure and resource allocations of their unit, the ratio of instruction librarians to the entire library faculty, and the hiring decisions that work toward building a corps of librarian-teachers. Therefore, the overriding factor determining the success of an instruction program is the extent of

commitment to it by the library administration. Library administrative support is critical for released time, additional staff and funds necessary to develop and sustain a program (Galloway and Sherwood, 1976). Bearing these views in mind, it is recommended that hours of instruction should be built into each public service librarian's schedule, and participation should become a factor in the evaluation criteria for promotion. Dyson (1975) observes that the symbolic act of creating a user education coordinator's position can in itself be important. It is further recommended that new staff should be hired with the understanding that they will participate in user education programs. The teaching component of a librarian's job should be in his/her job description and should not be regarded as an additional responsibility above the normal duties.

5.5.6 Faculty Partnership with Librarians

Many authors have discussed the importance of making connections with the academic teaching faculty in designing and marketing user education programs. Faculty hold a great deal of the political power within most institutions of higher education, and they also influence library usage among students through the assignment of papers and projects. Baker (1989) observes that most students will use the library material in their course only if professors require them. It is therefore important for faculty to have the interest in using the library. Faculty must also teach and give instruction on how to use various library resources and literature sources relevant to their specific disciplines. The library must be able to persuade the faculty that a well-educated individual needs to possess an understanding of the structure and value of knowledge. Librarians should build close ties with faculty through personal contact, faculty orientation sessions, library liaisons, and service of librarians on academic departmental committees. Faculty must be willing to give up class time for user education. Librarians and faculty must work together to design assignments that include a library component. Librarians should also accommodate students' needs, perceptions, and preferences in designing program components.

5.5.7 Financial resources

Any educational course needs adequate financial support. Funds are needed to finance seminars, surveys, evaluation work, and the development of teaching material for user education. The library must therefore provide continuous financial support for user education clearly identifiable within the library's budget program and statements and sufficient to provide the professional and supportive staff, equipment, material and facilities necessary to attain the delineated objectives. Other supplementary sources of funds, such as the sale of specific courses to academic departments and/or external users, should be explored. Sale of teaching materials such as workbooks, textbooks or computer programs can also provide for the user education program. In some subject fields, such as business and engineering, it is easily possible to sell courses to external users. The money raised should essentially be used for program development and purchasing of equipment. It is strongly recommended that allocation of funds towards the user education programs be constant bearing in mind that the material that will be used for the program will need constant review and updating.

5.5.8 Staffing and Staff Training for user education work

Fjallbrant (1990a) observes that the most important resource for the development of any library user education program is the staff who are developing and organizing it. The staff should be enthusiastic, friendly, and able to teach and communicate clearly and effectively. They should also possess organizational and administrative ability, patience, humility and maturity. Enthusiasm is perhaps the most important quality in the above list. The user education instructor must want to teach about how to find information. Members of staff must be highly motivated in order to create an interest in users in how to find information. The library staff involved in user education must have a positive attitude towards users and be prepared to go out from the physical boundaries of the library into the institution it serves. Good communication skills are an asset. User education programs with most impact are often those where the librarians are active members of the institution or community.

Appropriate subject qualifications are important when instruction is to be given in information searching. An appropriate subject qualification enables the librarian to relate user education to the needs in a given discipline. It also helps to strengthen relationships with academic colleagues and with students (Fjallbrant, 1990a). Training in education and teaching experience are very useful. Experience in research methods is valuable for the user educator who provides courses for students who are doing research or project work.

It has been noted in the study that many library staff felt ill prepared by their librarianship training for user education. All the librarians interviewed were conscious of the fact that they had no formal training in educational practice or teaching. It is, therefore, recommended that the library should provide in-house training for its library staff. In-house training will offer an opportunity to the library to introduce the concepts and methods of user education to all members of the library staff. This will also serve to increase understanding of the function of user education and will enable staff to contribute to the development of user education courses. Open-house sessions, where new programs are demonstrated, can also be very useful in this context.

5.5.9 Resources for teaching-space and equipment

The study has revealed that facilities, equipment and materials are inadequate for effective user education programs. It is recommended that the library should provide facilities, equipment and materials:

- a) to accommodate the preparation of instructional materials and the presentation of various modes of instruction (individual, small or large group, lecture, discussion media, etc.);
- b) of sufficient size, number and scope to accommodate the attainment of the delineated objectives. User education programs require adequate teaching and equipment.

It is recommended that the Library Basement and auditorium be used for user education programs, apart from the reference area. The Library Basement can be renovated into a teaching laboratory with workstations and other related electronic equipment. This will also allow the students to move between the teaching environment and the reference collection. The staff who are responsible for user training must have adequate office space for preparing courses, writing teaching materials, consulting with students, etc. Furthermore, adequate equipment must be available for demonstrating and teaching online information retrieval on CD-ROMs, OPAC, E-mail and the Internet/WWW. There must be adequate audio-visual teaching equipment such as overhead and slide projectors. Student assistants can be hired, especially from the Department of Library and Information Studies, to provide support to the instruction program, including copying, and maintaining equipment, handouts and supplies in the classrooms.

5.5.10 Course-integrated Instruction

As already pointed out, to make user education meaningful to the students, it should be linked to what is taught in specific courses. Fjallbrant (1990a) argues that if user education can be designed to fit in with the needs of the students in relation to their projects, essays, term papers, tutorials, etc., this will result in a positive and useful learning experience. It is therefore recommended that library and academic faculty should cooperate closely and develop course-integrated user education programs in information retrieval and handling at points when this is relevant in the academic programs. Such a program should occur throughout all levels of the curriculum to avoid it becoming of a short-term value to students. The timing and design of the instruction should depend on the discipline involved and the structure of communication within the subject in question. It is recommended that, the need for user education at UNZA be given urgent attention so that the design, organization and execution of the program are started as early as possible. Furthermore, UNZA Library should take a lead in organizing seminars and workshops to look into aspects affecting user education in libraries in the whole country. There is need to encourage cooperation in sharing resources in user education with other libraries.

5.5.11 Library-based information technology resources

The growing use of computer and telecommunications technologies for research, teaching, and service at UNZA has far reaching consequences on user education. Fjallbrant (1990b) has observed that information technology has two main effects on user education. On one hand, the growing complexity information handling and storage techniques brings about a greater need to teach users what is available, how to choose the most appropriate tool for their needs and how to use it efficiently. On the other hand, new methods of digital processing and storage provide excellent tools for teaching purposes. It is therefore recommended that librarians be trained on the uses of these technologies so that they in turn can educate administrators, academic faculty and students on their potential. The adoption of new technologies has also resulted in the need for many groups such as librarians, faculty, researchers and administrators to update their knowledge and practices. There is therefore need for continuing user education in information handling techniques. This can best be achieved through provision of short courses tailored to meet the needs of specific clients. The courses can be fee-based and can give a useful source of income for other user educational programs.

It is further recommended that the library should improve its policy and procedures guiding access to the library-based IT resources, particularly the CD-ROM databases, E-mail and Internet resources. The workstations should be increased and a qualified librarian should head the CD-ROM section. It is further recommended that a bigger room with adequate security should be secured for the CD-ROM section.

The study also recommends that the library should work hand in hand with the Computer Centre in the provision of IT resources.

5.5.12 Library Stock

Rajagopalan (1978) cautions that user education should not run ahead of the provision of information services and back-up resources as this may result into frustration and disappointment. It is therefore recommended that the library should be sufficiently funded to stock the most important works and to employ appropriate staff. Users need to be exposed to abstracts, current awareness services and the whole range of information tools. Course-oriented user education demands a full knowledge of the information services and how to handle them. User education leads to increased library use therefore if the available information resources and services do not match with what the users are being taught this will cause frustration and disappointment. The library should provide an environment in which learning can happen and a laboratory where information exists in sufficient quantities and variety to support exploration (Haynes, 1996). Furthermore, Morris' (1990) asserts that for user education to be really effective, the library must offer a service which is contemporary, not contradictory. This means questioning practices such as slavishly following academic faculty' recommendations, and reducing dependence on short loan and reprint collections. To be effective the library must see itself, and must be seen, as an active participant in the educational process, not merely as a warehouse to support the formal teaching. Therefore, in addition to providing political and moral support, the library management must also provide the conditions and resources sufficient support planned teaching activity (Cowley, 1988). On the other hand, user education can be used to demonstrate the weaknesses of the library service not only to the librarians but also to those who can initiate improvement (Haynes, 1996).

5.5.13 Publicity

Since user education greatly relies on publicity, it is strongly recommended that this should be done on a continuous basis in order to keep the whole university community aware of the program. All possible means such as posters, newsletters, memos, phone calls, electronic mail, and electronic bulletins on the OPAC should be employed. Furthermore, librarians should be "visible". Service on student disciplinary councils,

departmental and university governing bodies, student affairs committees, and involvement with student organizations will increase the visibility of the profession and its mission. The library administration must make it possible for librarians to serve in these capacities. The time spent becoming involved in educational activities outside the library should be perceived by librarians and library administrators as a legitimate and important component of a librarian's assignment (McCool, 1989).

5.5.14 User Guides

The study recommends that sufficient user guides in the form of good signage, printed guides to library services, point-of-use instruction, self-guided library tours, printed pathfinders, or bibliographic guides to the subject literature must be prepared. The user guides are a very important component of user education since it is not possible to interact with every library user because of staff shortages or user shyness. Printed guides to library services such as interlibrary loan, circulation, CD-ROM, OPAC, photocopying, bindery, Special Collections, are essential for orienting the user to the library. There should be floor plans and signs directing users to different areas of the library where various services and resources are provided. The shelf tags should be constantly repaired and adjusted. The Readers' Services Division, Special Collections and other units should be involved in preparing user guides.

5.5.15 Attitude of library staff

It is important to train all library staff, not just those involved in formal user education, in public relations and professional etiquette. It is recommended that the staff at the Circulation Section and all public service points be vigilant, tolerant, friendly and courteous. The image they portray greatly influences the publicity of the user education program. The library staff must be responsive to the needs of the customers and give them the services they need. Line's warning (1983) that user education must not be a substitute for poor services must be taken seriously. Customer care involves all library

staff and adequate and regular training is important, as is encouraging and listening to comments and criticisms (Fleming, 1990).

5.5.16 Physical Conditions

The study recommends that the library should improve its appearance, cleanliness and comfort as these have profound influence on users. Rice (1981) asserts that there is an automatic and somewhat unconscious tendency to think of a very attractive library as a good library even before any searching is done in it. He further contends that there are some users who would never become regular users of an unattractive library no matter how successful they might be in using it. Similarly, there are some users who would become regular users of a beautiful library no matter how poor its collection and organization. Therefore, it is recommended that library buildings should be repainted; toilet facilities repaired; chairs and tables repaired and increased; and shelves, study tables, carrels constantly cleaned. Books should be regularly dusted. Air conditioning should be improved, particularly on the Deck 14. Lighting should be improved in all reading areas and the stacks. New paintings, sculptures, ceramics, mobiles and displays must be acquired. The old artifacts in the foyer must be replaced with new ones. All this can be done with a little initiative.

5.6 Suggestions for Further Research

In order for the library to aid in the attainment of the mission, purposes, functions and aspirations of the university, faculty, researchers and students must use its resources and services effectively. It is therefore recommended that further studies should be conducted on the utilization of the library resources and services on all categories of the university community. This will help the library plan its resources and services effectively.

This study has shown that user education is a major compelling influence on the use of library resources. It would be useful to investigate what is the most appropriate method to impart information skills to students. Such an investigation should include an

examination of how best to incorporate the faculty since the latter constitute the sole agent of student's library use.

This study has provided evidence on the opinions of faculty, students and library staff regarding the effectiveness of user education programs conducted at UNZA. A study of the teaching practices and philosophies of faculty and their influence on students' use of the library resources and services is recommended.

Since this study has primarily focused on students' information skills, it is recommended that a similar study be conducted to determine the information skills needs of academic faculty.

REFERENCES

- Adams, G.R. & Schvaneveldt, J.D. (1982). **Understanding research methods**. New York: Longman.
- Aguolu, C.C. (1983). The education of library users in Nigerian Universities. **Education Libraries Bulletin**, 25(3), 20-29.
- Aitchison, J.M.H. (1998). **Access to books and journal articles by postgraduate students on a course-work masters programme in Information Studies at the University of Natal, Pietermaritzburg**. M.I.S. thesis, University of Natal, Pietermaritzburg.
- Alemna, A.A. (1982). User education in university libraries in Ghana. **Education libraries Journal**, 33(1), 41-47.
- Allen, K. (1970). Student and faculty attitudes. **Library College Journal**, 3(4), 28-36.
- Andrews, J. (1991). An exploration of students' library use problems. **Library Review**, 40(1), 5-14.
- Baker, B.K. (1989). Bibliographic instruction: Building the librarian/faculty partnership. In M. Pastine & B. Katz (Eds.). **The reference librarian: Integrating library use skills into the general education curriculum**, 24, 311-328. New York: Haworth.
- Baker, B.K., Birchfield, M., & Weston, N. (1992). Information technology and curriculum design: New approaches for library and faculty partnerships. In L. Shirato (Ed.). **Working with faculty in the new electronic library: Papers and session materials presented at the 19th National LOEX Library Instruction Conference**, 71-80. Ann Arbor, MI: Pierian.
- Babbie, E. (1992). **The practice of social research** (6th ed.). Belmont: Wadsworth.
- Barry, C.A. (1997). Information skills for an electronic world: Training doctoral research students. **Journal of Information Science**, 23 (3), 225-238.
- Britain, J.M. (1970). **Information and its users**. Bath: University Press.
- Bechtel, J.M. (1971). A possible contribution of the library-college idea to modern education. **Drexel Library Quarterly**, 7, 189-201.
- Behrens, S.J. (1993). User education at tertiary level: A review of recent literature. **South African Journal of Library and Information Science**, 61 (3), 124-130.

- Best, J.W. (1981). **Research in education** (4th ed.). New Jersey: Prentice-Hall.
- Boakye, J. (1999). Users' awareness and use of science and technology collections at the University of Science and Technology (UST) libraries. **Journal of Librarianship and Information Science**, 31(4), 204-211.
- Bonn, G.S. & Bryant, M.S. (1960). Training laymen in the use of the library. In R. R. Shaw, (Ed.). **The state of the library art** (Vol. 2 Pt. 1). New Brunswick, N. J.: Graduate School of Library Service, Rutgers University.
- Breivik, P.S. (1985). Putting libraries back in information society. **American Libraries**, 16, p.723.
- Breivik, P.S. (1986). Library-based learning in an information society. **New Directions for Higher Education**, 14(4), 47-55.
- Carpenter, R.L. & Vasu, E.S. (1978). **Statistical methods for librarians**. Chicago: American Library Association.
- Centers for Disease Control. (1994). **Epi Info 6 manual** [online]. Centers for Disease Control and Prevention, USA. Available from: <http://www.cdc.gov/epo/epi/intro/manual/manchp2.htm> [Accessed 20 Oct. 1999].
- Chanda, K. (1982). Did you know? **Zambia Library Association Newsletter**, 4(4&5), 12-16.
- Clarke, D. et al. (1981). **The British Library Research and Development Reports: The Travelling Workshops Experiment in Library User Education**, Report No. 5602.
- Cowley, J. (1988). **A survey of information skills teaching in U.K. higher education**. London: British Library Research and Development Department.
- Daniel, J.O. (1983). **The relationship between methods of instruction and frequency of library use by students and faculty in three universities in Nigeria**. Ph. D Thesis, University of Michigan.
- Denzin, N.K. (1978). **The research act: A theoretical introduction to research methods** (2nd ed). New York: McGraw-Hill.
- Dyson, A.J. (1975). Organizing undergraduate library instruction: The English and American experience. **Journal of Academic Librarianship**, 1(1), 9-13.

- Dyson, A.J. (1978). Library instruction in university undergraduate libraries. In J. Lubans (Ed). **Progress in educating the library user**. New York: Bowker.
- Edem, U. S. & Lawal, O.O. (1996). Towards improved user education programs in Nigerian University Libraries. **African Journal of Libraries, Archives and Information Science**, 6 (1), 31-36.
- Farber, E.I. (1993). Bibliographic instruction at Earlham College. In L. Hardesty, J. Hastreiter & D. Henderson (Eds.). **Bibliographic instruction in practice: A tribute to the legacy of Evan Ira Farber**, 1-14. Ann Arbor, Michigan: Pierian.
- Feather, J. & Sturges, P. (Eds.). (1996). **International encyclopedia of information and library science** London: Routledge, 454-455.
- Fidzani, B.T. (1995). User education in academic libraries: A study of trends and developments in Southern Africa. **61st IFLA General Conference Proceedings August 20-25**.
- Fidzani, B.T. (1998). The impact of user education at the University of Botswana Library. **Information Development**, 14 (3), 123-126.
- Fjallbrant, N. (July 1977). Planning a program of library user education. **Journal of Librarianship**, 9(3), 199-211.
- Fjallbrant, N. (1990a). **The education and training of users of libraries and information services in higher education** (UNESCO Expert Meeting on the Training of Information Users in Higher Education), Otaniemo, Espoo, Finland, 13-17 August, 1990.
- Fjallbrant, N. (1990b). Why user education and how can information technology help? **IFLA Journal**, 16(4), 405-413.
- Fjallbrant, N. (1996). EDUCATE-A Networked User Education Project in Europe. **IFLA Journal**, 22(1), 31-34.
- Fjallbrant, N. & Malley, I. (1984). **User education in libraries** (2nd ed.). London: Clive Bingley.
- Fjallbrant, N. & Stevenson, M. (1978). **User education in libraries**. London: Bingley.
- Fleming, H. (Ed.). (1990). **User education in academic libraries**. London: Library Association.

- Ford, B.J. (1994). Information literacy as a barrier. **60th IFLA General Conference-Conference Proceedings-August 21-27** [online]. Available from: <http://www.nlc-bnc.ca/ifla/IV/ifla60/60-forb.htm> [Accessed 12 Nov. 1998].
- Foster, J.A. (1981). Influence through user education-a strategy for campus librarians. **Canadian Library Journal**, 38(1), 35-37.
- Fox, P.K. (1979). **User education in the humanities in U.S. academic libraries** (British Library Research and Development Report No. 5474). London: Research and Development Department, British Library.
- Galloway, S. & Sherwood, V. (1976). Essentials for an academic library's instructional service program. **California Librarian Year**, 37, 45-49.
- Gay, L.R. (1992). **Educational research competencies for analysis and application** (4th ed.). Toronto: Maxwell MacMillan.
- Gentil, B. (1999). User education: Who needs it anyway? **Innovation**, 18, 29-35.
- Green, K.C. & Gilbert, S.W. (1995). Myths, realities, and new necessities: Academic productivity and technology. **Academe**, 81(1), 19-25.
- Gwinn, N. E. (1980). Academic libraries and undergraduate education: The CLR experience. **College and Research Libraries**, 41(1), 5-16.
- Hacker, B.L. & Rustein, J.S. (1978). Educating large numbers of users in university libraries: An analysis and a case study. In M.J. Voigt (Ed.). **Advances in librarianship**. New York: Bowker, 105-123.
- Hardesty, L. (1995). Faculty culture and bibliographic instruction. **Library Trends**, 44(2), 339-367.
- Hardesty, L.L., Schmitt, J.P. & Tucker, J.M. (1986). **User instruction in academic libraries: A century of selected readings**. Metuchen, N.J.: Scarecrow.
- Harris, K.G.E. (1982). User education. **Libri**, 32(4), 327-336.
- Harvey, L., Moon, S., Geall, V. & Bower, R. (1997). **Graduates' work: Organisational change and students' attributes**. London: University of Central England in Birmingham, Centre for Research into Quality.
- Haynes, E.B. (1996). Library-faculty partnerships in instruction. In Godden, I. (Ed.). **Advances in librarianship** (Vol. 20) (pp. 191-222). New York: Academic Press.

- Herner, S. & Herner, M. (1967). **Information needs and uses in science and technology. Annual Review of Information Science and Technology (ARIST)**, 2, 1-33.
- Hopkins, F.L. (1982). A century of bibliographic instruction: the historical claim to professional and academic legitimacy. **College and Research Libraries**, 43 (3), 192-198.
- International Federation of Library Associations. **IFLA Round Table** [Available from [http:// diogenes.baylor.edu/Library/LIRT/](http://diogenes.baylor.edu/Library/LIRT/)]. [Accessed 28 April 2000].
- Isaac, S. & Michael, W. (Eds). (1982). **Handbook in research and evaluation** (2d ed.). San Diego: Edits.
- Ishola, S.O. (1980). User education in the institutions of higher learning in Nigerian. **Nigerian Libraries**, 16 (3), 101-102.
- Johnson, S. quoted in Jackaman, P. (1985). **Basic reference and information work**. Seaton House, Britain: Elm.
- Jorosi, N.B. (1989). **The University of Botswana Library: A study of its services vis-à-vis the information needs of its clientele**. Postgraduate Diploma Dissertation, University of Botswana.
- Kargbo, J.A. (1999). Academic library orientation programmes at Fourah Bay College: From a critical thinking perspective. **Education Libraries Journal**, 42 (2), 21-24.
- Kawatra, P.S. (1992). **Library user studies: A manual for librarians and information scientists**. Bombay: Jaico Publishing House.
- Keenan, S. (1977). **Survey of packages for training users of on-line information services** (Final report submitted to the Commission of European Communities, Technical Information and Information Management).
- Keenan, S. (1980). **Training for on-line: A review and assessment paper presented at EURIM3: A European Conference on the contribution of users to planning and policy making for information systems and networks, Munich, 25-27 April 1978**. London: Aslib.
- Kennedy, J.R. (1970). Integrated library instruction. **Library journal**, 95(8), 1450-1453.

- Kenny, D.J. (1987). Library instruction in the 1980s: Where has it been and where is it going? In C.A. Mellon (Ed.). **Bibliographic instruction: The second generation** (pp. 192-197). Little, Colorado: Libraries Unlimited.
- Kirk, T.G. (1974). Problems in library instruction in four-year colleges. In J. Lubans, J. (Ed.). **Educating the library user**. New York: Bowker.
- Knapp, P.B. (1956). A suggestion program of college instruction in the use of the library. **Library Quarterly**, 26, p.224.
- Knapp, P.B. (1964). The methodology and results of the Monteith Pilot Project. **Library Trends**, 13, 84-104.
- Knapp, P.B. (1966). **The Monteith College Library Experiment**. New York: Scarecrow Press.
- Lester, R. (1979). Why educate the library user? **Aslib Proceedings**, 31(8), 366-380.
- Levin, R.I. (1981). **Statistics for management** (2nd ed.). Englewood Cliffs, N.J.: Prentice Hall.
- Line, M.B. (1982). **Library surveys: An introduction to the use, planning procedure, and presentation of surveys** (2nd ed.). London: Clive Bingley.
- Line, M.B. (1983). Thoughts of a non user non educator. In P. Fox & I. Malley (Eds.). **Third International Conference on Library User Education** (pp. 2-9). Loughborough: Infuse Publications.
- Lockwood, D.L. (1979). **Library instruction: A bibliography**. Westport, Conn.: Greenwood.
- Lolley, J. (1978). Instruction in junior and community colleges. In J. Lubans (Ed.). **Progress in educating the library user**. New York: Bowker, 57-69.
- Luckett, K. (Comp.). (1997). **Programmes hand-book: Guidelines for programme design, specification, approval and registration at the University of Natal**. [Photocopied handout] (pp. 47-48). Pietermaritzburg: University of Natal, Tertiary Education Studies Unit.
- Lynch, B.P., & Seibert, K.S. (1980). The involvement of the librarian in the total educational process. **Library Trends**, 29(1), 127-138.

APPENDIX A: Statistical Results of the Chi-square Cross tabulations

Table 1: Ability to use library resources by Influence on academic success

| Influence on academic success | | | | Total | |
|----------------------------------|-------|---|------------|--------|--------|
| | | | frequently | none | |
| Ability to use library resources | Good | Observed | 156 | 20 | 176 |
| | | Expected Count | 130.9 | 45.1 | 176.0 |
| | | % within ability to use library resources | 88.6% | 11.4% | 100.0% |
| | | % within Influence on academic success | 59.8% | 22.2% | 50.1% |
| | | % of Total | 44.4% | 5.7% | 50.1% |
| | Poor | Observed | 105 | 70 | 175 |
| | | Expected Count | 130.1 | 44.9 | 175.0 |
| | | % within ability to use library resources | 60.0% | 40.0% | 100.0% |
| | | % within Influence on academic success | 40.2% | 77.8% | 49.9% |
| | | % of Total | 29.9% | 19.9% | 49.9% |
| | Total | Observed | 261 | 90 | 351 |
| | | Expected Count | 261.0 | 90.0 | 351.0 |
| | | % within ability to use library resources | 74.4% | 25.6% | 100.0% |
| | | % within Influence on academic success | 100.0% | 100.0% | 100.0% |
| | | % of Total | 74.4% | 25.6% | 100.0% |
| | | $\chi^2 = 37.741$, df=1, sign=0.000 | | | |

Table 2: Ability to use index by Use the index to periodicals

| Use the index to periodicals | | | | | | Total |
|------------------------------|------|---------------------------------------|-----------|--------|--------|--------|
| | | Frequently | Sometimes | Never | | |
| Ability to use index | Good | Observed | 17 | 67 | 24 | 108 |
| | | Expected Count | 8.0 | 51.3 | 48.7 | 108.0 |
| | | % within ability to use index | 15.7% | 62.0% | 22.2% | 100.0% |
| | | % within Use the index to periodicals | 70.8% | 43.2% | 16.3% | 33.1% |
| | | % of Total | 5.2% | 20.6% | 7.4% | 33.1% |
| | Bad | Observed | 7 | 88 | 123 | 218 |
| | | Expected Count | 16.0 | 103.7 | 98.3 | 218.0 |
| | | % within ability to use index | 3.2% | 40.4% | 56.4% | 100.0% |
| | | % within Use the index to periodicals | 29.2% | 56.8% | 83.7% | 66.9% |
| | | % of Total | 2.1% | 27.0% | 37.7% | 66.9% |
| Total | | Observed | 24 | 155 | 147 | 326 |
| | | Expected Count | 24.0 | 155.0 | 147.0 | 326.0 |
| | | % within ability to use index | 7.4% | 47.5% | 45.1% | 100.0% |
| | | % within Use the index to periodicals | 100.0% | 100.0% | 100.0% | 100.0% |
| | | % of Total | 7.4% | 47.5% | 45.1% | 100.0% |
| | | $\chi^2=41.267$, df=2, sign=0.000 | | | | |

Table 3: Aware of availability of CD-ROM by Use of CD-ROM

| Use of CD-ROM | | | | Total | |
|---------------------------------|--|--|--------|--------|--------|
| | | | often | never | |
| Aware of availability of CD-ROM | Yes | Observed | 71 | 105 | 176 |
| | | Expected Count | 39.7 | 136.3 | 176.0 |
| | | % within Aware of availability of CD-ROM | 40.3% | 59.7% | 100.0% |
| | | % within Use of CD-ROM | 95.9% | 41.3% | 53.7% |
| | | % of Total | 21.6% | 32.0% | 53.7% |
| | No | Observed | 3 | 149 | 152 |
| | | Expected Count | 34.3 | 117.7 | 152.0 |
| | | % within Aware of availability of CD-ROM | 2.0% | 98.0% | 100.0% |
| | | % within Use of CD-ROM | 4.1% | 58.7% | 46.3% |
| | | % of Total | .9% | 45.4% | 46.3% |
| Total | Observed | 74 | 254 | 328 | |
| | Expected Count | 74.0 | 254.0 | 328.0 | |
| | % within Aware of availability of CD-ROM | 22.6% | 77.4% | 100.0% | |
| | % within Use of CD-ROM | 100.0% | 100.0% | 100.0% | |
| | % of Total | 22.6% | 77.4% | 100.0% | |
| | $\chi^2=68.720$, df=1, sign=0.000 | | | | |

Table 4: Aware of availability of OPAC by Use OPAC

| Use OPAC | | | | | Total |
|-------------------------------------|-----|---|--------|--------|--------|
| | | often | never | | |
| Aware of availability of OPAC | Yes | Observed | 161 | 82 | 243 |
| | | Expected Count | 122.2 | 120.8 | 243.0 |
| | | % within Aware of availability of OPAC | 66.3% | 33.7% | 100.0% |
| | | % within Use OPAC | 95.3% | 49.1% | 72.3% |
| | | % of Total | 47.9% | 24.4% | 72.3% |
| | No | Observed | 8 | 85 | 93 |
| | | Expected Count | 46.8 | 46.2 | 93.0 |
| | | % within Aware of availability of OPAC | 8.6% | 91.4% | 100.0% |
| | | % within Use OPAC | 4.7% | 50.9% | 27.7% |
| | | % of Total | 2.4% | 25.3% | 27.7% |
| Total | | Observed | 169 | 167 | 336 |
| | | Expected Count | 169.0 | 167.0 | 336.0 |
| | | % within Aware of availability of OPAC | 50.3% | 49.7% | 100.0% |
| | | % within Use OPAC | 100.0% | 100.0% | 100.0% |
| | | % of Total | 50.3% | 49.7% | 100.0% |
| | | $\chi^2=89.427$, df=1, sign=0.000 | | | |

Table 5: Aware of availability of email by Use email

| Use email | | | | Total | |
|--------------------------------|-----|---|--------|--------|--------|
| | | | often | never | |
| Aware of availability of email | Yes | Observed | 98 | 137 | 235 |
| | | Expected Count | 72.1 | 162.9 | 235.0 |
| | | % within Aware of availability of email | 41.7% | 58.3% | 100.0% |
| | | % within Use email | 97.0% | 60.1% | 71.4% |
| | | % of Total | 29.8% | 41.6% | 71.4% |
| | No | Observed | 3 | 91 | 94 |
| | | Expected Count | 28.9 | 65.1 | 94.0 |
| | | % within Aware of availability of email | 3.2% | 96.8% | 100.0% |
| | | % within Use email | 3.0% | 39.9% | 28.6% |
| | | % of Total | .9% | 27.7% | 28.6% |
| Total | | Observed | 101 | 228 | 329 |
| | | Expected Count | 101.0 | 228.0 | 329.0 |
| | | % within Aware of availability of email | 30.7% | 69.3% | 100.0% |
| | | % within Use email | 100.0% | 100.0% | 100.0% |
| | | % of Total | 30.7% | 69.3% | 100.0% |
| | | $\chi^2=46.805$, df=1, sign=0.000 | | | |

Table 6: Aware of availability of Internet by Use Internet

| | | | Use Internet | | Total |
|---|-----|---|--------------|--------|--------|
| | | | often | never | |
| Aware of availability of Internet | Yes | Observed | 106 | 147 | 253 |
| | | Expected Count | 81.6 | 171.4 | 253.0 |
| | | % within Aware of availability of Internet | 41.9% | 58.1% | 100.0% |
| | | % within Use Internet | 98.1% | 64.8% | 75.5% |
| | | % of Total | 31.6% | 43.9% | 75.5% |
| | No | Observed | 2 | 80 | 82 |
| | | Expected Count | 26.4 | 55.6 | 82.0 |
| | | % within Aware of availability of Internet | 2.4% | 97.6% | 100.0% |
| | | % within Use Internet | 1.9% | 35.2% | 24.5% |
| | | % of Total | .6% | 23.9% | 24.5% |
| Total | | Observed | 108 | 227 | 335 |
| | | Expected Count | 108.0 | 227.0 | 335.0 |
| | | % within Aware of availability of Internet | 32.2% | 67.8% | 100.0% |
| | | % within Use Internet | 100.0% | 100.0% | 100.0% |
| | | % of Total | 32.2% | 67.8% | 100.0% |
| | | χ^2 =44.137, df=1, sign=0.000 | | | |

Table 7: Instruction on CD-ROM by Use of CD-ROM

| | | | Use of CD-ROM | | Total |
|-----------------------|---------------|--------------------------------|---------------|--------|--------|
| | | | often | never | |
| Instruction on CD-ROM | at least once | Observed | 41 | 25 | 66 |
| | | Expected Count | 14.5 | 51.5 | 66.0 |
| | | % within Instruction on CD-ROM | 62.1% | 37.9% | 100.0% |
| | | % within Use of CD-ROM | 56.2% | 9.7% | 19.9% |
| | | % of Total | 12.3% | 7.5% | 19.9% |
| | never | Observed | 32 | 234 | 266 |
| | | Expected Count | 58.5 | 207.5 | 266.0 |
| | | % within Instruction on CD-ROM | 12.0% | 88.0% | 100.0% |
| | | % within Use of CD-ROM | 43.8% | 90.3% | 80.1% |
| | | % of Total | 9.6% | 70.5% | 80.1% |
| Total | | Observed | 73 | 259 | 332 |
| | | Expected Count | 73.0 | 259.0 | 332.0 |
| | | % within Instruction on CD-ROM | 22.0% | 78.0% | 100.0% |
| | | % within Use of CD-ROM | 100.0% | 100.0% | 100.0% |
| | | % of Total | 22.0% | 78.0% | 100.0% |
| | | $\chi^2 = 77.350, df=1, 0.000$ | | | |

Table 8: Instruction on OPAC by Use OPAC

| | | | Use OPAC | | Total |
|---------------------|---------------|-------------------------------------|----------|--------|--------|
| | | | often | never | |
| Instruction on OPAC | at least once | Observed | 107 | 17 | 124 |
| | | Expected Count | 61.4 | 62.6 | 124.0 |
| | | % within Instruction on OPAC | 86.3% | 13.7% | 100.0% |
| | | % within Use OPAC | 64.5% | 10.1% | 37.0% |
| | | % of Total | 31.9% | 5.1% | 37.0% |
| | never | Observed | 59 | 152 | 211 |
| | | Expected Count | 104.6 | 106.4 | 211.0 |
| | | % within Instruction on OPAC | 28.0% | 72.0% | 100.0% |
| | | % within Use OPAC | 35.5% | 89.9% | 63.0% |
| | | % of Total | 17.6% | 45.4% | 63.0% |
| Total | | Observed | 166 | 169 | 335 |
| | | Expected Count | 166.0 | 169.0 | 335.0 |
| | | % within Instruction on OPAC | 49.6% | 50.4% | 100.0% |
| | | % within Use OPAC | 100.0% | 100.0% | 100.0% |
| | | % of Total | 49.6% | 50.4% | 100.0% |
| | | $\chi^2=106.295$, df=1, sign=0.000 | | | |

Table 9: Instruction on email by Use email

| | | | Use email | | Total |
|----------------------|---------------|------------------------------------|-----------|--------|--------|
| | | | often | never | |
| Instruction on email | at least once | Observed | 44 | 10 | 54 |
| | | Expected Count | 16.2 | 37.8 | 54.0 |
| | | % within Instruction on email | 81.5% | 18.5% | 100.0% |
| | | % within Use email | 44.0% | 4.3% | 16.2% |
| | | % of Total | 13.2% | 3.0% | 16.2% |
| | never | Observed | 56 | 224 | 280 |
| | | Expected Count | 83.8 | 196.2 | 280.0 |
| | | % within Instruction on email | 20.0% | 80.0% | 100.0% |
| | | % within Use email | 56.0% | 95.7% | 83.8% |
| | | % of Total | 16.8% | 67.1% | 83.8% |
| Total | | Observed | 100 | 234 | 334 |
| | | Expected Count | 100.0 | 234.0 | 334.0 |
| | | % within Instruction on email | 29.9% | 70.1% | 100.0% |
| | | % within Use email | 100.0% | 100.0% | 100.0% |
| | | % of Total | 29.9% | 70.1% | 100.0% |
| | | $\chi^2=81.578$, df=1, sign=0.000 | | | |

Table 10: Instruction on Internet by Use Internet

| | | | Use Internet | | Total |
|-------------------------|---------------|------------------------------------|--------------|--------|--------|
| | | | often | never | |
| Instruction on Internet | at least once | Observed | 46 | 8 | 54 |
| | | Expected Count | 17.0 | 37.0 | 54.0 |
| | | % within Instruction on Internet | 85.2% | 14.8% | 100.0% |
| | | % within Use Internet | 43.4% | 3.5% | 16.1% |
| | | % of Total | 13.7% | 2.4% | 16.1% |
| | never | Observed | 60 | 222 | 282 |
| | | Expected Count | 89.0 | 193.0 | 282.0 |
| | | % within Instruction on Internet | 21.3% | 78.7% | 100.0% |
| | | % within Use Internet | 56.6% | 96.5% | 83.9% |
| | | % of Total | 17.9% | 66.1% | 83.9% |
| Total | | Observed | 106 | 230 | 336 |
| | | Expected Count | 106.0 | 230.0 | 336.0 |
| | | % within Instruction on Internet | 31.5% | 68.5% | 100.0% |
| | | % within Use Internet | 100.0% | 100.0% | 100.0% |
| | | % of Total | 31.5% | 68.5% | 100.0% |
| | | $\chi^2=85.717$, df=1, sign=0.000 | | | |

APPENDIX B

Responses to questions 25 and 16 of questionnaires 1 and 2, respectively

1.0 User education

1.1 Library orientation

- The period of library orientation should be extended to about two weeks and not only one hour, as it is the case now.
- The guided tour provided by the UNZA Library management is not enough. If my memory serves me right, I was only taken round once on my orientation day simply to show me where Deck1, 2, 3, 8, etc., were and what types of books were found there. We need programs that are designed to help students understand and appreciate the functions of the Library. Library staff should be serious when teaching new students how to use the Library resources. Take small groups of students during orientation to ensure that all students understand the role of the library in their studies. The library staff who were assigned to conduct orientation in the 1998/99 academic year did a bad job and most students had to rely on other students when using the Library. Instructions were badly conducted and not clear.
- The Library should conduct comprehensive orientation programs of students after they have settled down.
- Lecturers should take part in the orientation program together with students.

1.2 The need for user education

- UNZA Library by the nature of its sophistication in comparison to other libraries in the country (Zambia) ought to introduce user education programs to enable students utilize the Library to the fullest. Most school leavers come from backgrounds or schools where library facilities are very inadequate. The same applies to in-service students. UNZA Library ought to redress this inadequacy.
- We from the School of Medicine need user education because when we come to the Main Library things look so complicated that we end up feeling lost and discouraged.

- There should be a continuous user education program because even we senior students sometimes find it difficult to locate materials especially by using abstracts and catalogs.
- There need for UNZA Library staff to take the responsibility of instructing students in the use of information resources. It is surprising that some students simply graduate without information retrieval skills.
- Each lecturer should have good time to explain to students on how to go about the Library resources especially during the first two week of the lectures on campus.
- In my opinion, students at the time of enrolment should be taught how to use the library facilities. This can only be achieved by introducing a course taught by librarians and lecturers. The objective should be to provide the necessary skills to enable a student to use the library effectively. The librarians should also keep students informed of resources, developments and improvements in the library.
- The Library should instruct students on how to use certain library facilities rather than letting them learn on their own as this may cause damage to these facilities.
- Teach students how to use IT resources. Allowing students make experiments on the computers just because there are manuals will finally see all the computers broken down.
- Introduce a user education course for all students. Let it be recognized as a course of study.
- Try to make library instruction more frequent and concentrate on specific areas at a time.
- Assign permanent library staff to give instruction especially on IT resources.
- With regard to question 24C.1-4, I have ticked "Yes", as it would give more exposure to students if they were assisted by a variety of personnel. Most students use the Library to read their notes, personal books, etc. more than using library resources.
- Services listed in questions 15 to 17 should be advertised and taught to all not just to a selected few. It is sad that the University is producing computer illiterates in the year 2000.

- Regular instructions on how to make use of such specialized sections like the Short Loan, Special Collections, and Periodicals Section should be conducted.
- The library staff must not assume that even us faculty members are computer literature. There is need for training in the use of information technology resources.
- Library staff must review the way they provide user education. At present they only conduct routine library orientation which is inadequate and does not impart the necessary skills to students to enable them independently search for information in the library. It is important to bear in mind that most students enrolled at this university did not acquire library skills at secondary school. This means that the library must collaborate with lecturers taking first year foundation courses and fuse in library skills.

1.3 Printed guides and manuals

- Publish instruction notes (at affordable prices) on how to use all library facilities and services.
- The available manuals on the desks are not explicit enough to a lay man, please.

2.0 IT Library based resources

2.1 CD-ROM, email and Internet/WWW services

- The library should make proper schedules over the use CD-ROM services. There should be a transparent system that will allow all students have access to IT resources.
- CD-ROM should be accessible to all students at no fee at all. Some library staff demand money just to download information. This is corruption.
- Increase access to CD-ROM, email, Internet/WWW by providing more computers in the Schools. This will reduce congestion in the Library.
- There should be proper booking on the CD-ROM and other related services, not what is happening now where the friends of the one in charge of the service permanently book the CD-ROM. Access should be on “first come first serve”.

- CD-ROM is not a personal-to-holder facility for library staff. All students must have access to it.
- CD-ROM, email, Internet/WWW are new communications systems. Some students come from rural areas where such facilities are not found. Take students to these sections and teach them how to use them. It is sad to see that some students do not know how they can make use of these services. Librarians sit chatting because students do not use their sections due to the fact that some do not know how to get information from these sections.
- IT resources like the Internet and email must increased. The few (4) PCs that were there before could not provide enough access to the large student body. No wonder many people rarely use or know about their existence because you have to book for 30 minutes only, which is too small a time. Stop exploiting students through charging for usage.
 - Remove the prohibitive fees on the use of the IT resources.

2.2 OPAC

- The OPAC instructions should be adequate.
- Increase the number of terminals for OPAC.
- Maintain the OPAC. The terminals are usually out of order and besides, they are too few.

3.0 Currency of library stock

- Most of your materials are not Y2K compliant. Need new books.
- Please, stock books that are relevant to our courses. Get in touch with Schools and ask for recommendations from lecturers.
- Weed out outdated books. Otherwise one may have the impression that the Library has got a lot of books and yet most of them are outdated.
- It is frustrating to spend precious time trying to locate a book, which is not available.

4.0 Physical structure

- Improve ventilation and lighting in the Library.
- Toilets must be repaired and cleaned.

5.0 Housing keeping

- Books take long to be shelved after they are returned.
- Ensure that books are actually available on the shelves before directing a user to go and check there. It is very frustrating to go up and ‘bounce’. This leads to loss of confidence in library staff.
- Some books do not appear in the catalog. Something must be done about it.
- The library must be thoroughly dusted. At the moment it has layers and layers of dust, which have collected over the years; making the library a haven for the spread of flu and evidently keeping the population of library users low for fear of catching flu. Clean thoroughly at least once per month!

6.0 Reading facilities

- No individual should be allowed to reserve a seat. This is to enable every person access to the Library.
- Introduce over-night study facilities.
- We need more chairs and tables.

7.0 Serials, Special Collections, and Short Loan Collections

7.1 Special Collections Division

- Undergraduates should access the serials, Special collections too! We need the same information freely.
- Access to the Special collections should be improved because that is where relevant materials are found.
- There is much restriction especially of the use of the Special Collections. There should be another way of ensuring security unlike the cumbersome procedure of getting letters from lecturers.

- The Special collections entrance rules should be relaxed (debureaucratized), as it is full of red tape. Let it be like Short loan.
- Finding books in the Special collections should be simplified.
- The Special Collections must open up to 22.00 hrs.
- Special Collections as far as I am concerned is the most helpful section. But this section also requires personnel who are familiar with the materials so that whatever is requested is retrieved.

7.2 Short Loan Section

- The Short loan should extend its lending period from one night to about a day.
- The number of materials in the Short Loan Section should correspond to the demands of the student population.
- Short loan section needs an update of past exam papers to 1999. Sometimes new library staff fail to trace books.
- Some relevant materials found in the Special Collections should be reproduced and put in the Short loan as well.

7.3 Periodicals Collection Section

- The Periodicals section index must be updated and all its personnel must be able to trace what is requested.

8.0 Library publicity

- Library staff should make more effort in publicizing and advertising the services they have and whatever instructions may be available.
- Generally speaking many students don't know and are not even aware of the available library facilities but view the library as a quiet place where one can study. I for one feel a bit embarrassed that I've been on campus for five years and don't know of such services. As librarians always remember that the first impression matters and right from the start can paint a very bad picture on what the library is.
- Display lists of latest material acquired on the notice board.
- A feedback system must be put in place e.g. a suggestion box.

- Suggestions dropped in the suggestion box should be taken seriously by librarians.
- Put up enough and clear signs to help students locate information.

9.0 Noise

- Repair the water fountain, which used to swallow the noise of papers, footsteps, etc.

10.0 Library operations

- Learn to keep time especially when opening the library. You are too punctual when closing.
- Extend library hours.
- The library should operate 24hrs a day.
- Books should be borrowed throughout the time the library is open.
- Devise better ways of reservations because lecturers and some students have a tendency of getting good books and keeping on renewing them thus denying others access to them for very lengthy periods.
- The number of books loaned to students should be increased from four to six because many students prefer to read and do assignments in their hostels instead of the Library.
- Automate the circulation system to speed up borrowing.
- An enquiry desk should be opened in the library to assist users seeking help in the use of library facilities.
- Library regulations should apply to all students and not only to some, e.g. Medical students are allowed to borrow some books for the whole semester without renewing while Post Basic students have to renew their books every two weeks, yet they also have major courses like medical students.
- The library should bind and repair worn out books over the university vacation and not during the semester.
- New labels on shelves should be mounted. The current ones are blurred and therefore not legible.
- Make information easier to access for those who are short sighted.

- The elevators should be repaired to ease up movement for the disabled.
- Library user fees should be introduced. This will allow the Library to earn an income.

11.0 Security of library materials

- UNZA books are being sold in the streets.
- Strict measures should be put in place to deal with individuals who vandalize books or computers.
- Should screen all workers when going out or knocking off from work to avoid stealing of UNZA Library books.
- All books must be sensitized with the magnetic tape.
- Come up with a system that will lessen vandalism of library resources. Some library users pull up pages or papers from library books.

12.0 Photocopying services

Introduce photocopying facilities in all the sections of the Library.

13.0 Library staff

- Employ staff who are well trained.
- UNZA Librarians should be taught skills on how to instruct students how and where to find information resources required.
- Our library staff should be efficient, rational and effective in discharging their duties.
- Librarians should have respect (good public relations) for students.
- Personnel should always be available at the counter to save time.
- Readers' services does not really offer any services. No one is readily available.
- Librarians should not only sit at the counter or loan point, but also move around various library sections to assist students who might need help.
- Library staff need training on etiquette of their calling. We are not their enemies and so we shouldn't be treated as such.
- The people work at the desk should be helpful and stop being rude to students.

- There are also library workers who are fond of making money from students by letting them keep books for as long as a year.
- Some librarians take equipment as personal e.g. computers and want to use them themselves. If they are for students let students use them.
- Library workers behave as though library resources such as computers are personal-to-holder and use them for games when students need to use them for academic purposes.
- Librarians should be taught that their job is to serve us willingly and not act as though they bought the facilities with their own money. They are first employees and not owners of the library. I hope this information you have collected is not just to be black and white but will be used to effectively make changes for the better. The survey should serve a purpose. We can't be answering surveys year after year without change. Apply these suggestions or cancel your research!
- There should be incentives for library assistants to motivate them; they look demoralized.
- Librarians in the Short loan should be more understanding and helpful and not rude.
- Library staff should be exposed to other libraries in the Region to see and check contemporary changes and the state of the art with regard to libraries.
- Library staff should be very understanding and accommodating. Those workers who feel that they are tired should resign on moral grounds instead of doing nothing.
- Accountability and a sense of responsibility should be instilled among library staff. They should be committed to their work rather just saying that "no this book is over due but you can't pay if you give me something for lunch".
- Some library staff are too reserved or too much closed-up.
- Library staff are too reserved or too closed-up.

14.0 Academic faculty's teaching practices in relation to the use of library resources

- Lecturers use the same books which they had used as students in the 1950s to churn out graduates. Future posterity will judge us harshly.

15.0 Use of the library resources and services

- I use the library because when I see other s reading profusely I get encouraged to read even harder.
- Though I visit the library so often, I just use the library as a study hall. I use my own materials and I read from the library because it is quieter in comparison to other places.

APPENDIX C

SURVEY OF STUDENT OPINION REGARDING THE EFFECTIVENESS OF THE USER EDUCATION PROGRAM

Please, answer the questions in this questionnaire as completely and as honestly as possible. Your answers will be kept confidential and anonymous.

SECTION A

For the following items, please respond by ticking [✓] in the space preceding your answer.

1. Your School: _____

2. Your Major:

- ☐ BA ☐ BA.ED ☐ BA.LIS ☐ BA.NQS ☐ B.ED(PR) ☐ B.ED(SP) ☐ B.ENG ☐ B.M.C
☐ B.MIN.SC ☐ B.SC ☐ B.SC.AG ☐ B.SC.ED ☐ B.SC.HB ☐ B.SC.NQS ☐ BSC.NRS
☐ B.SW ☐ B.VETMED ☐ C.A.E ☐ C.I.LAW ☐ CRT.DEM ☐ D.A.E. ☐ LLB
☐ M.B.CH.B ☐ Other (Specify): _____

3. Classification

- ☐ first year ☐ Second Year ☐ Third Year ☐ Fourth Year
☐ Fifth Year ☐ Sixth Year ☐ Seventh Year ☐ Graduate
☐ Other (Specify)_____

4. How do you rate your ability to make use of library resources for assignments, term papers or research projects? (Please, tick one). ☐ Excellent ☐ Good ☐ Fair ☐ Poor

5. In your courses at UNZA, to what extent do you feel that your ability to use the library has had much influence on your success as a student: ☐ Very much ☐ Sometimes ☐ Very little
☐ None ☐ not sure

6. How often do your assignments in courses involve using library resources other than materials placed on reserve by lecturer? ☐ frequently ☐ sometimes ☐ never

7. How often do you visit the University Library?

- ☐ four or more times per week ☐ one to three times per week
☐ Once or twice per month ☐ never

8. If your answer is never, please tick the major reason(s) why you don't visit the Library:

- ☐ -my courses do not require library use ☐ -I do not know enough about using the library
☐ the Library is inadequate for my needs ☐ other (please specify)_____

9. Generally my attitude toward the importance of the Library to my work is: ☐ positive
☐ negative ☐ no opinion

If you never visit the library, skip questions 10-18 and continue with question 19.

10. If, or when, your courses require you to use library resources for papers or research projects, would you probably:

(a) ask your lecturer to recommend books and other relevant materials?

☐ frequently ☐ sometimes ☐ never

(b) ask a librarian to help you? ☐ frequently ☐ sometimes ☐ never

(c) ask your friends for help? ☐ frequently ☐ sometimes ☐ never

(d) do background reading in encyclopedias and/or general works on the topic?

☐ frequently ☐ sometimes ☐ never

(e) go directly to the online (computer) catalogue and look under what you think the topic will be? ☐ frequently ☐ sometimes ☐ never

(f) check the Library of Congress List of Subject Headings for possible subject headings?

☐ frequently ☐ sometimes ☐ never

(g) browse through the library's books and periodicals (magazines, journals, newspapers, etc.) until you find the ones that deal with your topic? ☐ frequently ☐ sometimes

☐ never

(h) use the CD-ROM databases to find the abstracts on topics that deal with your research?

☐ frequently ☐ sometimes ☐ never

(i) use an index to periodicals (magazines, journals, newspapers, etc.) e.g. Reader's Guide?

☐ frequently ☐ sometimes ☐ never

11. How do you rate your ability to use the following information sources? Tick [✓] all that apply.

| Information source | Very good | Good | Fair | Bad | Very bad |
|------------------------------------|-----------|------|------|-----|----------|
| Dictionary | | | | | |
| Encyclopedia | | | | | |
| Abstracts & indexes to periodicals | | | | | |

12. How frequently do you use the following services? Tick [✓] all that apply.

| Service | Very often | Often | Sometimes | Never |
|-----------------------|------------|-------|-----------|-------|
| Bound periodicals | | | | |
| Photocopying | | | | |
| Reference desk | | | | |
| Interlibrary Loan | | | | |
| Short Loan Collection | | | | |
| Special Collections | | | | |

13. If you never use any of the above services tick [✓] the reason(s) which explain why. Tick [✓] all that apply.

| Service | Not needed | Do not know of its availability | Difficulty to use |
|-----------------------|------------|---------------------------------|-------------------|
| Bound periodicals | | | |
| Photocopying | | | |
| Reference desk | | | |
| Interlibrary Loan | | | |
| Short Loan Collection | | | |
| Special Collections | | | |

14. Are you aware of the availability of the following library-based information technology resources? Tick [✓] all that apply.

| IT Resource | Yes | no |
|-------------------------|-----|----|
| CD-ROM | | |
| Computer catalog (OPAC) | | |
| Email | | |
| Internet/WWW | | |

15. How often do you use these resources? Tick [✓] all that apply.

| IT Resource | Very often | Often | Sometimes | Seldom | Never |
|-------------------------|------------|-------|-----------|--------|-------|
| CD-ROM | | | | | |
| Computer catalog (OPAC) | | | | | |
| Email | | | | | |
| Internet/WWW | | | | | |

16. How many times have you received library instruction on the use of the above library-based information technology resources? Tick [✓] all that apply.

| IT Resource | Once | Twice | Thrice | Four or more | Never |
|-------------------------|------|-------|--------|--------------|-------|
| CD-ROM | | | | | |
| Computer catalog (OPAC) | | | | | |
| Email | | | | | |
| Internet/WWW | | | | | |

17. How do you rate the instructions you received with regard to the following resources? Tick [✓] all that apply.

| IT Resource | Very satisfied | Satisfied | Dissatisfied | Very dissatisfied | No opinion |
|-------------------------|----------------|-----------|--------------|-------------------|------------|
| CD-ROM | | | | | |
| Computer catalog (OPAC) | | | | | |
| Email | | | | | |
| Internet/WWW | | | | | |

18. If your answer to question 15 is seldom or never, indicate the reason for your answer.

1. OPAC

- ☐ I do not know how to use it ☐ I do not need it for my course work and assignment
☐ I do not need it for my research work ☐ Others (Specify) -----

2. CD-ROM

- ☐ I do not know how to use it ☐ I do not need it for my course work and assignment
☐ I do not need it for my research work ☐ Others (Specify) -----

3. Email

- ☐ I do not know how to use it ☐ I do not need it for my course work and assignment
☐ I do not need it for my research work ☐ Others (Specify) -----

4. Internet/WWW

- ☐ I do not know how to use it ☐ I do not need it for my course work and assignment
☐ I do not need it for my research work ☐ Others (Specify) -----

19. Before I became a student at UNZA I was taught how to use:

- a) my secondary school library. ☐ Yes ☐ No ☐ not applicable
b) the public library. ☐ Yes ☐ No ☐ not applicable
c) a college library. ☐ Yes ☐ No ☐ not applicable
d) another university library. ☐ Yes ☐ No ☐ not applicable

20. Since enrolling as a student at UNZA I have received the following types of instruction in the use of the library:

- a) self-guided tour of the Library using a printed guide. ☐ Yes ☐ No
b) guided tour, lecture at the Library? ☐ Yes ☐ No

- c) instruction from a librarian in one of my classes? ☐ Yes ☐ No
- d) instruction from a faculty member in one of my classes? ☐ Yes ☐ No
- e) computer assisted library instruction? ☐ Yes ☐ No

21. Which of the following type(s) of library instruction do you prefer?

- a) guided tours of the Library. ☐ Yes ☐ No ☐ No opinion
- b) self-guided tour of the Library using a printed guide ☐ Yes ☐ No ☐ No opinion
- c) library handbooks and bibliographies. ☐ Yes ☐ No ☐ No opinion
- d) classroom presentations by librarians on library resources and skills
☐ Yes ☐ No ☐ No opinion
- e) computer-assisted library instruction. ☐ Yes ☐ No ☐ No opinion
- f) an elective course designed to develop knowledge and skills to do library research.
☐ Yes ☐ No ☐ No opinion
- h) If your answer to h) is 'Yes', should this course be: (i) ☐ credit or (ii) ☐ non-credit?

22. Over all, the Library does an adequate job of teaching students how to use its resources and services. ☐ Strongly agree ☐ Agree ☐ Disagree ☐ Strongly disagree ☐ No opinion

23. If you have never received any instructions in the use of library materials select one of the reasons listed below that explains why.

- ☐ I am not aware of the existence of library instruction ☐ library instruction does not exist at the University ☐ I declined to attend library instruction because I did not need it
- ☐ Other (please specify) -----

24. The following statements relate to ways students could learn about using the Library. Tick [✓] the responses that closely reflect your feelings.

- (a) No instruction is necessary; students possess the necessary skills when they enter the University. ☐ Agree ☐ Disagree ☐ No opinion
- (b) Students should develop library skills independently, asking librarians if necessary.
☐ Yes ☐ No ☐ No opinion
- (c) Students should learn library skills in a
1. required course taught by librarians. ☐ Yes ☐ No ☐ No opinion
 2. library course taught by department faculty. ☐ Yes ☐ No ☐ No opinion

3. required course such as Freshman (First Year) English or Communication Skills where faculty and librarians collaborate in providing instruction on library skills. ☐ Yes ☐ No ☐ No opinion
4. Faculty members (lecturers) have the primary responsibility for instructing students in the use of resources relevant to their courses. ☐ Yes ☐ No ☐ No opinion
5. UNZA Library has the primary responsibility of instructing students in the use of resources relevant to their courses. ☐ Yes ☐ No ☐ No opinion

25. If you have any suggestions on how the Library should improve its services, please list them below.

APPENDIX D

Survey of Faculty opinion regarding the effectiveness of user education programs at the University of Zambia

1. Your Department:.....
2. Academic Rank: (please tick in the appropriate space)
☐ Professor ☐ Associate professor ☐ Senior Lecturer ☐ Lecturer I
☐ Lecturer II ☐ Lecturer III ☐ SDF
3. If you are a lecturer, please check the opinion below which best describes your typical instruction duties.

☐ full charge of class (i.e. teaching, grading, etc.)
☐ conduct laboratory session(s)
☐ conduct tutorials
☐ other (e.g. grading, tutorial only, etc.)
4. Length of teaching experience (with UNZA and elsewhere)
☐ two years or less ☐ three to seven years ☐ eight or more years
5. In your OWN graduate studies, were you instructed in the use of library resources through:(please respond to each item)
 - a) a course (or part of a course) in library research taught by departmental faculty, or Librarian? ☐ Yes ☐ No
 - b) Informal consultation with a lecturer ☐ Yes ☐ No
 - c) Picked up on my own ☐ Yes ☐ No
6. There should be library orientation sessions for new faculty members.
☐ Yes ☐ No ☐ No opinion

7. Please indicate the type(s) of library instruction you think UNZA Library should provide for all categories of students.

a) Orientation tours of library.

☐ Yes ☐ No ☐ No opinion

b) Library handbooks and bibliographies.

☐ Yes ☐ No ☐ No opinion

c) Classroom presentations on library skills and resources by Librarians.

☐ Yes ☐ No ☐ No opinion

d) Course related instruction (bibliographies of reference sources or exercises) prepared by Librarians at faculty request.

☐ Yes ☐ No ☐ No opinion

e) An elective course designed to develop the knowledge and skill to do library research. ☐ Yes ☐ No ☐ No opinion

8. Do you normally teach courses that require students to use the Library?

☐ Yes ☐ No

IF YOUR ANSWER IS NO, SKIP 9-13 AND CONTINUE WITH QUESTION NUMBER 14.

9. Do you explain to your class the indexes, bibliographies, handbooks, etc., available in your field? ☐ Usually ☐ Occasionally ☐ Never

IF YOU TEACH UNDERGRADUATE COURSES REQUIRING LIBRARY USE, ANSWER 10 AND 11; OTHERWISE GO ON TO QUESTION 12.

10. How do you rate your undergraduate students' ability to make use of library resources for assignments, term papers or other research projects? (Please tick one)

☐ Excellent ☐ Good ☐ Fair ☐ Poor

11. Indicate the type of resources you expect undergraduates in your course to utilize.

a) Reserve materials ☐ Yes ☐ No

- b) Reading from a required or recommended list of library materials not on reserve. ☐ Yes ☐ No
- c) Materials located through use of card catalogue, online catalogue, CD-ROM databases, indexes, and bibliographies (e.g. for the term papers presentations).
☐ Yes ☐ No
- d) General reference books ☐ Yes ☐ No
- e) Discipline-oriented reference books. ☐ Yes ☐ No

IF YOU ARE NOT TEACHING A GRADUATE COURSE REQUIRING LIBRARY USE, PLEASE SKIP 12 AND 13 AND CONTINUE WITH 14.

12. How do you rate your graduate students' ability to make use of library resources for graduate level research in your field?

- ☐ Excellent ☐ good ☐ fair ☐ poor

13. Please indicate the types of resources you expect your graduate students to utilize.

- a) Reserve materials ☐ Yes ☐ No
- b) General reference books, indexes, and bibliographies. ☐ Yes ☐ No
- c) Discipline-oriented reference books, indexes, and bibliographies.
☐ Yes ☐ No
- d) Dissertation abstracts and thesis catalogues. ☐ Yes ☐ No
- e) The Library Public Catalogue (card or online) in the Main Library for author, title, subject searches. ☐ Yes ☐ No
- f) Interlibrary Loan ☐ Yes ☐ No
- g) Other (please indicate):-----

14. The following statements relate to ways students could learn about using the Library. Tick the responses that most closely reflect your feelings.

- a) No instruction is necessary; students possess the necessary skills when they enter the University. ☐ Agree ☐ Disagree ☐ No opinion
- b) Students should develop library skills independently, asking Librarians if necessary.
☐ Yes ☐ No ☐ No opinion
- c) Students should learn library skills in a
1. required course taught by librarians
☐ Yes ☐ No ☐ No opinion
 2. Bibliography course taught by department faculty
☐ Yes ☐ No ☐ No opinion
 3. Required course such as Freshman English or Communication Skills where faculty and librarians collaborate in providing instruction on library skills.
☐ Yes ☐ No ☐ No opinion
 4. Faculty members have the primary responsibility for instructing students in the use of resources relevant to their courses.
☐ Yes ☐ No ☐ No opinion
 5. The UNZA Library has the primary responsibility for instructing students in the use of resources relevant to their courses.
☐ Yes ☐ No ☐ No opinion
 6. Other (please indicate)-----

15. If you teach any courses that require students to make little use of library resources, please indicate the reasons. Otherwise go on to 16.
- a) Course content is covered adequately in textbooks, laboratories, and lectures.
☐ Yes ☐ No
 - b) Too many students ☐ Yes ☐ No
 - c) Library resources are inadequate ☐ Yes ☐ No
 - d) Library work is not appropriate at this level in the curriculum.

☐ Yes ☐ No

e) Students do not have the background to do library assignments.

☐ Yes ☐ No

f) Other (please explain):-----

16. Do you have suggestions on ways the Library could improve services to students? -----

APPENDIX E

INTERVIEW SCHEDULE OF LIBRARY STAFF OPINION REGARDING THE NEED FOR USER EDUCATION AT UNZA LIBRARY

This interview is intended to elicit information on the opinions of librarians regarding user education at UNZA Library.

Interview topics

S.1: Who is responsible for User Education?

Who carries out the post-orientation teaching?

Are formal teaching qualifications seen to be important to library staff involved in user education?

Are in-house teaching skills courses provided for library staff?

Does any joint teaching between library staff and academic staff take place?

S.2: Teaching Competency of those involved in User education

Are those involved in the teaching conversant with learning theories and teaching methodology?

Is the approach to teaching essentially pragmatic and designed to help students with immediate problems?

Is any account taken of longer-term transferable skills?

S.4: Level of commitment

What is the level of commitment for the teaching of information skills?

Where in the order of library priorities does it stand?

S.5: Academic Support

What is the impact of academic support for courses?

Do academic staff sit in on the sessions and actively encourage attendance?

S.6: Orientation

What are the basic aims of orientation?

When is it held?

What percentage of students are involved?

Are the basic aims achieved?

Which factors work against successful orientation?

Is orientation worthwhile despite these associated problems?

S.7: Post-orientation Instruction

How many students receive post-orientation instruction?

What in general is the level of attendance?

S.8: Teaching Materials

Which teaching materials are used for post-orientation teaching?

Is support offered by media or educational technology staff?
What has been the library's experience of using audiovisual aids?

S.9: Planning

Is there adequate forward planning for the library teaching?
Is it adequately resourced?
What level of support and encouragement is offered by senior library management?
What is the level of interest and support from within the institution (from departments, faculties and the executive)?

S.10: Use of IT

Is any IT used in information skills teaching?
Are students made aware of such IT services as online information retrieval, full-text retrieval and CD-ROM applications?
Are students encouraged to carry out an online search?
What are the main constraints on the use of IT?

S.11: Level of integration

What level of integration is achieved between library teaching and the wider studies?
What is the level of library involvement in student project preparation?
Can it be claimed that most of students experience a planned progression of library teaching over the full period of their courses?
Is there a progression of teaching developing from the very simple (orientation) to the complex (planned module on advanced information skills?)

S.12: Scope of User Education

Is the teaching of information skills broadened out into work on wider study skills?
Is this done in conjunction with other specialist staff?
What exactly is on offer (report writing, note taking)?
If the library would like to be more involved in study skills what are the main barriers to achieving this?

S.13: Evaluation

How is student response to information skills teaching monitored and evaluated?
Is there any known results?
Is there any evidence of improved student performance following library instruction?

SURVEY OF LIBRARY STAFF OPINION REGARDING THE NEED FOR USER EDUCATION

Dear respondent,

I am conducting a survey to determine Library Staff's attitude toward user education and services at the University of Zambia Library as part of my research for a Masters of Library and Information Studies. I will be very grateful if you will take a few minutes to respond to the following items and return the completed form in the enclosed envelope as soon as is convenient. All responses will be treated as confidential. I sincerely appreciate your cooperation.

Section A

Please complete Section A by ticking appropriate spaces. If written comment is needed to supplement basic responses please turn to Section B.

Respondent's Notes

Respondents are asked to CIRCLE one of the four choices against each question. The four choices are:

2 = much used, most applicable

1 = used to some extent, moderately applicable

0 = not used, not applicable

A.1 Type of User education

Are any of the following activities carried out by library staff in atypical academic year?

- | | |
|---|-------|
| 1.1 Basic introduction to library, library orientation. | 2 1 0 |
| 1.2 General library skills. | 2 1 0 |
| 1.3 Teaching use of subject or course literature | 2 1 0 |
| 1.4 Assistance with student project work | 2 1 0 |
| 1.5 Study skills, communication skills (e.g. note taking, report writing, committee practice) | 2 1 0 |
| 1.6 Examined or assessed information skills module forming part of approved course | 2 1 0 |

A.2 Wider Study Skills

If answer to 1.5 above is "not used," are study skills taught by others?

- | | |
|--|-------|
| 2.1 Responsibility of specialist academic unit operating across departments | 2 1 0 |
| 2.2 Not generally available but offered by some departments as part of the normal teaching | 2 1 0 |
| 2.3 Not generally available but occasionally on offer by individual tutors | 2 1 0 |

A.3 Time Allocation

How much time is normally allowed for...

3.1 Basic library orientation?

| | | | |
|-------------------------|---|---|---|
| 3.1.1 1 hour or less | 2 | 1 | 0 |
| 3.1.2 1-2 hours | 2 | 1 | 0 |
| 3.1.3 more than 2 hours | 2 | 1 | 0 |

3.2 Post-orientation courses as listed in 1.2 to 1.5 above?

| | | | |
|-------------------------|---|---|---|
| 3.2.1 up to 2 hours | 2 | 1 | 0 |
| 3.2.2 2-4 hours | 2 | 1 | 0 |
| 3.2.3 4-6 hours | 2 | 1 | 0 |
| 3.2.4 more than 6 hours | 2 | 1 | 0 |

3.3 Examined or assessed modules as in 1.6?

| | | | |
|--------------------------|---|---|---|
| 3.3.1 up to 6 hours | 2 | 1 | 0 |
| 3.3.2 6-12 hours | 2 | 1 | 0 |
| 3.3.3 12-24 hours | 2 | 1 | 0 |
| 3.3.4 more than 24 hours | 2 | 1 | 0 |

A.4 Teaching Methods for Orientation

Which of the following are used in basic library orientation sessions?

| | | | |
|--------------------------------|---|---|---|
| 4.1 Self-guided tours | 2 | 1 | 0 |
| 4.2 Guided tours | 2 | 1 | 0 |
| 4.3 Introductory audio-visual | 2 | 1 | 0 |
| 4.4 Introductory talk | 2 | 1 | 0 |
| 4.5 Talk with sample exercises | 2 | 1 | 0 |

A.5 Teaching Methods for Post-Orientation Courses

Which of the following methods are used in post-orientation sessions?

| | | | |
|--------------------------------|---|---|---|
| 5.1 Lectures, "chalk and talk" | 2 | 1 | 0 |
| 5.2 Lectures with visual aids | 2 | 1 | 0 |
| 5.3 Library-based exercises | 2 | 1 | 0 |
| 5.4 Seminars with exercises | 2 | 1 | 0 |

A.6 Teaching Materials for Orientation Courses

Are any of the following materials used?

| | | | |
|-------------------------------|---|---|---|
| 6.1 Printed handouts | 2 | 1 | 0 |
| 6.2 Worksheets | 2 | 1 | 0 |
| 6.3 Workbooks | 2 | 1 | 0 |
| 6.4 Overhead Projector slides | 2 | 1 | 0 |
| 6.5 Tape-slides | 2 | 1 | 0 |
| 6.6 Videos | 2 | 1 | 0 |

A.7 Teaching Materials for Post-orientation

| | | | |
|-------------------------------|---|---|---|
| 7.1 Printed handouts | 2 | 1 | 0 |
| 7.2 Worksheets/workbooks | 2 | 1 | 0 |
| 7.3 Overhead projector slides | 2 | 1 | 0 |
| 7.4 Tape-slides/videos | 2 | 1 | 0 |
| 7.5 Computer programs (CAL) | 2 | 1 | 0 |
| 7.6 Interactive video | 2 | 1 | 0 |

A.8 Student Attendance for Post-orientation

Is attendance voluntary or controlled?

| | | | |
|---|---|---|---|
| 8.1 Entirely voluntary; left to student | 2 | 1 | 0 |
| 8.2 Voluntary, but firmly encouraged by academics | 2 | 1 | 0 |
| 8.3 Time-tabled, but still voluntary | 2 | 1 | 0 |
| 8.4 Time-tabled and firmly encouraged | 2 | 1 | 0 |

A.9 Continuity

After basic orientation do students receive further user education in the shape of...

| | | | |
|--|---|---|---|
| 9.1 More advanced courses on an occasional or sporadic basis | 2 | 1 | 0 |
| 9.2 A series of planned progressive courses throughout the duration of their studies | 2 | 1 | 0 |

A.10 Physical Setting

Where is post-orientation user education normally held?

| | | | |
|---|---|---|---|
| 10.1 in the library | 2 | 1 | 0 |
| 10.2 library seminar room | 2 | 1 | 0 |
| 10.3 in allocated rooms outside the library | 2 | 1 | 0 |

A.11 **Technical Support**

What kind of technical support for library education is normally provided?

| | | | |
|--|---|---|---|
| 11.1 None, librarian has to be self-sufficient | 2 | 1 | 0 |
| 11.2 library technician available | 2 | 1 | 0 |
| 11.3 support from media technician | 2 | 1 | 0 |
| 11.4 Support from education audiovisual resources unit | 2 | 1 | 0 |

A.12 **Academic Support**

What is the level of support from academic staff?

| | | | |
|---------------------------------------|---|---|---|
| 12.1 in general, very little | 2 | 1 | 0 |
| 12.2 support from some academic staff | 2 | 1 | 0 |
| 12.3 support from the majority | 2 | 1 | 0 |
| 12.4 extensive formal support | 2 | 1 | 0 |

A.13 **Academic involvement**

What is the level of academic involvement in user education?

| | | | |
|---|---|---|---|
| 13.1 hardly any involvement | 2 | 1 | 0 |
| 13.2 some discussion of aims and objectives | 2 | 1 | 0 |
| 13.3 formal joint planning | 2 | 1 | 0 |
| 13.4 joint teaching | 2 | 1 | 0 |
| 13.5 joint assessment | 2 | 1 | 0 |
| 13.6 project assessment by academic staff | 2 | 1 | 0 |

A.14 **Time Allocation**

How much time is spent by library staff on user education preparation and teaching?

| | | | |
|--|---|---|---|
| 14.1 hardly any | 2 | 1 | 0 |
| 14.2 moderate amount, spasmodic | 2 | 1 | 0 |
| 14.3 significant amount at certain times of year | 2 | 1 | 0 |
| 14.5 regular, steady commitment | 2 | 1 | 0 |

A.15 **Advance Notice**

Are requests for user education made in sufficient time?

| | | | |
|---|---|---|---|
| 15.1 very little, often last minute | 2 | 1 | 0 |
| 15.2 mostly adequate, but not consistently so | 2 | 1 | 0 |
| 15.3 planned well in advance | 2 | 1 | 0 |

A.16 **Evaluation**

How are user education programs evaluated?

| | | | |
|---|---|---|---|
| 16.1 in open discussion with student groups | 2 | 1 | 0 |
| 16.2 by students completing questionnaires | 2 | 1 | 0 |
| 16.3 by selective student interviewing | 2 | 1 | 0 |
| 16.4 in consultation with academic staff | 2 | 1 | 0 |
| 16.5 post-course appraisal of student library performance | 2 | 1 | 0 |

A.17 **Revision**

How is revision of courses carried out?

| | | | |
|--|---|---|---|
| 17.1 occasional, when time allows | 2 | 1 | 0 |
| 17.2 after completion of course with student reactions in mind | 2 | 1 | 0 |
| 17.3 when circumstances make it necessary | 2 | 1 | 0 |
| 17.4 systematic regular revision | 2 | 1 | 0 |

A.18 **Impact of IT**

Are traditional methods of teaching being supplemented by IT (computer) applications?

| | | | |
|--|---|---|---|
| 18.1 No IT in use | 2 | 1 | 0 |
| 18.2 little IT used, but experimentation in hand | 2 | 1 | 0 |
| 18.3 small element of IT firmly established | 2 | 1 | 0 |
| 18.4 significant amount of IT already in use | 2 | 1 | 0 |

End of Section A

APPENDIX F

The University of Zambia
Library Department
P.O. Box 32379
Lusaka
Zambia

Dear respondent,

I am conducting a survey to assess the effectiveness of the library user education program at the University of Zambia as part of my research for a Master of Library and Information Studies (MLIS). I am now in the process of collecting data for my research project.

In order for me to conduct my study I need to collect data from you. I would appreciate it if, therefore, you would read the questionnaire carefully and answer all the questions as honestly and accurately as possible. Your answers will be kept confidential and the information you give will not be associated with your identity; it will not be disclosed to another person.

You may also wish to know that since you have been selected at random to participate in this research, your views will represent those of other students who have not been selected.

It is my hope that the results of this study will assist you and the University of Zambia, in addition to other national and international academic institutions, in making right decisions on a wide range of issues in the provision of library and information services.

Kindly take a few minutes to answer this questionnaire and turn in the completed form at the Issue Desk in the Main Library by -----, 2000.

Thanking you for participating in my study.

Sincerely yours,

AKAKANDELWA AKAKANDELWA

APPENDIX G

The University of Zambia
Library Department
P.O. Box 32379
Lusaka
Zambia

Dear respondent,

I am conducting a survey to assess the effectiveness of the library user education program at the University of Zambia as part of my research for a Master of Library and Information Studies (MLIS). I am now in the process of collecting data for my research project.

In order for me to conduct my study I need to collect data from you. I would appreciate it if, therefore, you answer this questionnaire. Your answers will be kept confidential and the information you give will not be associated with your identity; it will not be disclosed to another person.

You may also wish to know that since you have been selected at random to participate in this research, your views will represent those of other academic faculty who have not been selected.

It is my hope that the results of this study will assist you and the University of Zambia, in addition to other national and international academic institutions, in making right decisions on a wide range of issues in the provision of library and information services.

Kindly take a few minutes to answer this questionnaire. I will collect it from you in person; alternatively, you may leave it with the Secretary of your department.

Thanking you for participating in my study.

Sincerely yours,

AKAKANDELWA AKAKANDELWA



University of Botswana

Private Bag 0022 Gaborone Botswana
Telephone 351151 • Fax 356591 • Telex 2429 BD

January 14, 2000

Dear Sir or Madam:


This is to certify that Mr. Akakandelwa Akankandelwa is a second year Masters in Library and Information Studies student in the Department of Library and Information, University of Botswana. Mr. Akankandelwa is conducting a study titled "**An Assessment of user Education in Academic libraries: The case of the University of Zambia**" in partial fulfillment of the Masters in Library and Information Studies.

Mr. Akakandelwa's study will yield information that will be helpful to professionals in the Library and information field within the University of Zambia library system and the University community at large. His letter explains the intent of the study so I will not duplicate it here.

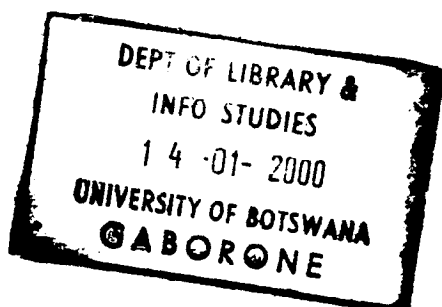
It is my hope that you will assist him in whatever way possible to enable him to conduct his study successfully.

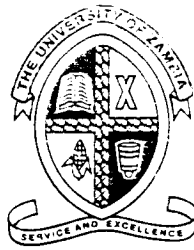
Thanking you in advance.

Your sincerely,


Dr. Balulwami Grand

Department of Library and Information Studies.





THE UNIVERSITY OF ZAMBIA

Telephone: 252514/292884
Telegrams: UNZA LUSAKA
Telex: UNZALU ZA 44370
Fax: + 260-1-253952

P.O. Box 32379
Lusaka Zambia

Your Ref:

28 January 2000

Our Ref:

TO WHOM IT MAY CONCERN

Dear Sir

RE: MR AKAKANDELWA AKAKANDELWA

I write to confirm that Mr Akakandelwa is a bona fide member of staff of this University of Zambia, currently studying for his Master of Library and Information Studies at the University of Botswana.

He is currently in Zambia collecting research data for his dissertation entitled **"User Education in Academic Libraries: The case of the University of Zambia."**

We would therefore appreciate any help that may be rendered to him in collecting the data necessary for the study from the lecturers, students and the Library staff.

Yours sincerely

Kalumba Mponda
ACTING DEPUTY REGISTRAR, ADMINISTRATION

258729