

**APPLICATION OF INFORMATION AND
COMMUNICATION TECHNOLOGIES IN LIBRARY
AND INFORMATION SERVICES TO DISTANCE
LEARNING STUDENTS AT THE UNIVERSITY OF
ZAMBIA**

By

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**A dissertation submitted to the University of Zambia in partial
fulfilment of the requirements for the award of the degree of
Master of Library and Information Science (MLIS)**

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Declaration

I, Inonge Imasiku do hereby declare that this dissertation represents my own work and that it has not been previously submitted for a degree by anyone else at the University of Zambia or any other University for the purpose of acquiring a degree.

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Certificate of Approval

This dissertation of Inonge Imasiku has been approved as partial fulfilment of the requirements for the award of Master of Library and Information studies by the University of Zambia.

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Abstract

Application of ICTs in library and information services to distance learning students at the University of Zambia

Although the University of Zambia (UNZA) in its 2013-2017 strategic plan intends to meet increased demand for university education through expanded provision of Open Distance Learning as an option for mass teaching, there is no mention of an equitable increase in library and information resources and services. Several studies and Standards for distance learning library services have stressed the need for equitable access to library services for both on-campus and off-campus (distance) learners. Sadly, there has been a steady decline in library and information service provision to the distance learner. This study therefore sought to explore ways in which Information and Communication Technology (ICT) could be applied to enhance library and information service delivery to distant learners (DLs). It further sought to propose an ICT framework on library and information services support to distance learners at the University of Zambia.

A survey methodology was used to collect data on distance learners' competencies to access information using ICTs, policy on distance learning library services and the extent to which ICTs were being used in both access to and provision of distance learning library services. Questionnaires were used to collect data from 100 distance learners while interviews were used to collect data from 5 librarians and a member of staff from Learner Support, Institute of Distance Education (IDE). The total number of respondents was therefore 106. All the respondents were purposely selected. Quantitative data was analysed using statistical analysis software, SPSS while qualitative data was analysed thematically.

The study has revealed that distance learners do possess ICT skills required to access ICT enabled resources and services (as revealed by 77%) but the major drawback was that these resources and services were not accessible remotely. It has further been established that in as much as distance learners had abilities to use ICTs like computers, most learners expressed lack of online search skills (73%) as well as problems in using UNZA e-resources. Thus learners may require user education in terms of information literacy, ICT literacy and general library use. Furthermore, a policy, which is a pre-requisite to successful distance learning library support, did not exist at UNZA. Additionally, the extent of ICT use in library support to the DL was low to almost non-existent. As learners seemingly possessed requisite ICT skill and as skill can in any case be developed through training, skill would not be a major drawback in model application.

In order to effectively meet the information needs of the distance learner, the study therefore recommended that: the UNZA library adopt the proposed model of ICT library resources and services to the distance learner; employ extensive use of ICT in library support; establish/strengthen co-operative linkages with other universities; and that the Library and Information Association of Zambia establishes 'Best Practices' that should act as a benchmark for library support to the distance learner and as such institutions should be able to evaluate their services against this minimum standard.

Dedication

To my late parents, Elizabeth Mundia Lubinda Imasiku and Lufwendo Mutongambuyu Imasiku. Thank you for showing me the value of education and for seeing my potential.

To my children, Tabo, Tebuho, Tumelo and Tukuzanga. I know that during the period of my study, I did not give you the attention that you deserved but you still gave me space to work. Thank you for your understanding.

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List of Abbreviations and Acronyms

ALA	American Library Association
ACRL	Association of College and Research Libraries
ARL	Association of Research Libraries
B.A.	Bachelor of Arts
B.A. LIS	Bachelor of Arts with Library and Information Sciences
B.SC.NRS	Bachelor of Science in Nursing
B.TED	Bachelor of Teacher Education
CCE	Centre for Continuing Education
DDE	Directorate of Distance Education
DL	Distance Learner
D.L.E.	Diploma in Law Enforcement
ICT	Information and Communication Technology
IDE	Institute of Distance Education
LIAZ	Library and Information Association of Zambia
LMS	Learning Management System
ODL	Open Distance Learning
OPAC	Online Public Access Catalogue
SADC	Southern Africa Development Community
SMS	Short Message Service
SPSS	Statistical Package for Social Sciences
UNZA	University of Zambia
US	United States
ZALICO	Zambia Library Consortium

CHAPTER ONE

Introduction

1.0 Overview

This chapter provides background information to the study by introducing distance learning in general, background information to distance learning at the University of Zambia (UNZA) and the role of the library in distance learning. The chapter also brings out the statement of the problem, aim and objectives of the study, significance of the study and definition of terms used.

1.1 Background to the Study

In a period of changing student demographics and extensive competition, it is becoming increasingly necessary for academic institutions to extend their educational offerings beyond the boundaries of their campuses. This not only means providing adequate and effective educational programmes but providing appropriate supplementary learning experiences as well. With the advent of technology, the emphasis on reaching students beyond the campus boundaries has increased as have the formats for course delivery. Although the academic library has traditionally remained central to the educational process and has always been perceived as the measure of quality of an educational institution, unfortunately, there seemed to be little or no correlation between how innovatively an institution delivered distance courses and the way in which it provided library services to its distance students (Lebowitz, 1997). There was little or no recognition of the central role that the library played in support of the quality of education or in the development of lifelong learning skills. This was evident in the fact that the use of the library was often not incorporated into courses being prepared for distance delivery.

Distance learners (DLs) have unique needs for library services and resources, and as such traditional services can in no way be stretched to meet information demands of distance learners because they face distinct and different challenges involving library access and information delivery (Gopakumar and Baradol, 2009). Therefore, traditional library services may need to be adjusted to adequately meet the needs of distance learners.

Watson (1992, 1997, 2006), Haider (2004), Gandhi (2003), Appleton (1997) and Cavanagh and Tucker (1997) have established that access to quality library resources and services was a critical factor in any academic programme of merit. Cooper (2000) pinpointed that there has been less emphasis given to the problems of providing library services to support distance learning programmes. The importance of libraries as the central organ in a university (Haider, 2004) has increased due to the rapid emergence of distance learning programmes (Yang, 2005). Libraries play a significant role in providing library services to meet the needs of this unique community in new and innovative ways (Ault, 2002). The SADC Regional Monitoring and Evaluation Framework for Open and Distance Learning (ODL) outlines a basic minimum of library resources and services accessible and these include trained staff, collection, subscription to relevant materials and services that are relevant to the areas of study (SADC, 2010). The Standards for distance learning library services as articulated by the Association of College and Research Libraries (ACRL), a division of the American Library Association (ALA), also advocate for access to appropriate library and information services and resources to learners (ACRL, 2008). The Standards further add that this access is a right. As academic institutions extend their educational offerings beyond the campus, they need to consider the role that the library plays in the educational process. There is also need to recognize that an inability to access adequate library resources places many DLs at a distinct disadvantage (Lebowitz, 1997). Therefore, universities must ensure that they make adequate provision for and access to library and information resources and services to all users, DLs inclusive.

1.2 Background to distance education

While distance education has existed earlier in the form of correspondence and independent study courses since the 1800s, the technological revolution brought about by the World Wide Web, the economic and market needs of higher education, the need for continuing education and the emergence of non-traditional students has catapulted distance learning to the forefront of more and more academic institutions (Gandhi, 2003; Hansen, 2001 and Wolpert, 1998). The University of Zambia (UNZA) is no exception. Chifwepa (2006) further adds that factors such as the need for human resource development and increased demand for university education from people already in employment influenced the development of distance education in Zambia. Enrolment statistics for 2004, 2009 – 2014 of UNZA DLs (table 1 below) support the important role distance learning is assuming.

These statistics show that there has been a steady increase in the number of students opting for the distance education mode of study. Recognising the importance of this new phenomenon and coupled with the need of according university education to a larger number of students, the University of Zambia intends to increase enrolments through Open Distance Learning (UNZA, 2012).

Table 1: Distance students enrolment statistics

Academic Year	No. Enrolled
2004	1164
2009	2972
2010	3813
2011	4682
2012	6198

Source: Academic Office, University of Zambia

1.2.1 Distance Education at UNZA

Distance education is seen as a means of providing wider access to university education through diversified and flexible forms of study, with ICT as an enabler of such access (Chifwepa, 2006). At the UNZA, distance education was established as a result of recommendations of the Lockwood Commission Report. The Report recommended that UNZA degree courses should be made available to external students and that a new department be set up to administer those courses (Chifwepa, 2006 citing Lockwood, 1964 and Siaciwena, 1988).

Distance education was recognised as a means of increasing opportunities to university education to Zambians who were not able to enrol for full-time studies, meet the need for human resource

development as well as afford chance for those in employment to upgrade their qualifications (Chifwepa, 2006 citing Siaciwena, 1998 and Lockwood, 1964).

The management of distance education at UNZA has undergone a number of changes, until finally culminating to what is today known as the Institute of Distance Education (IDE). These changes were mainly necessitated by the need to effectively manage the increasing number of programmes offered and consequently the increase in student population.

In 1966, the Department of Correspondence studies was established to coordinate and administer the activities of distance education. It was later changed to the Centre for Continuing Education (CCE) in 1975 in order to effectively manage distance learning activities. The CCE was transformed into the Directorate of Distance Education (DDE) in 1994 (Kakana, 2008). Reforms to improve the quality and management of distance education, as well as in response to increased demand for distance learning and competition from emerging private universities (among others), resulted in the transformation of DDE in 2009 into what is presently known as Institute of Distance Education (IDE).

IDE is responsible for the overall coordination and administration of all distance learning courses and acts as a liaison between the learners and the departments that offer the courses. Learners under the distance education mode of study undertake most of their study on their own but undergo a two weeks face-to-face residential school at the beginning of the academic year. Learner support is coordinated through IDE and includes registration assistance; distribution of study material and other relevant information; receiving assignments and reports on behalf of lecturers; and psychosocial counselling. Library support is one of the cardinal support services but after residential, access to the library becomes a problem (Kakana, 2008). This means that for the greater part of their study, learners heavily rely on study materials to meet their information needs (Chifwepa, 2006). This clearly puts the DL at a distinct disadvantage because lecture notes (study material) can never be comprehensive enough to cover all aspects of information a learner needs.

1.2.2 History of Library Support to Distance Education Students

Historically library services to distance students at UNZA have been offered in the following ways:

1.2.2.1 Postal Loan Service

This was where information resources were sent to students through the post office. Students would then keep the resource for up to three months before they were required to return the library materials to the Library. This type of service had its own challenges. Firstly it was costly to send material through the post. Secondly, it was inefficient in that some material reached the intended user late or never reached the intended user at all as the material would get “lost” in the post. Sometimes the students would never send back the material but claim they had. Thirdly, given the number of limited information resources, this service meant that other students could not access that information resource under loan for a period of up to three months. Given the above challenges, the postal loan service proved unsustainable and had to be discontinued. This has clearly disadvantaged the distance education students.

1.2.2.2 Specific collection for distance learners

Initially, a collection of information resources was set aside in the main library for distance students. This could however not be sustained due to among other reasons, the fact that the collection did not grow to match the expansion in both programmes and numbers in distance education. One of the main reasons for lack of growth was inadequate funding to the Library. This meant that eventually the resources available could not adequately cater for the students both in numbers and coverage. Thus this service was also discontinued, further disadvantaging the distance students when it came to accessing library and information services and resources.

When the above mentioned services (postal loans and specific collection) were discontinued, DLs had to access services and resources in the same way that on-campus students did.

1.3 Role of the Library in distance learning

The role of the library in distance education has been influenced by some of these factors: non-traditional study having rapidly become a major element in higher education; greater recognition of the need for library resources and services at locations other than main campuses; growing concern and demand for equitable services for all students in higher education, no matter where

the “classroom” may be; a greater demand for library resources and services by faculty and staff at distance learning sites; and the expansion and advancement in technological innovations in the transmittal of information and the delivery of courses (ACRL,2008). Inevitably, the library has to change how it operates in order to fit into this emerging landscape.

The library is one of the most important support services that distance teaching institutions can offer their students. A library, according to Haider (2004), is the central organ of a university and plays a significant role in achieving the objectives of higher education. Excellent library services can encourage students and staff to join an institution. For distance learning activities, an institution must ensure the provision of and ready access to adequate library/learning resources and services to support the courses, programs and degrees offered. The institution must own the library/learning resources, provide access to electronic information available through existing technologies, or provide them through formal agreements. The institution must assign responsibility for providing library/learning resources and services and for ensuring continued access to them at each site (Gandhi, 2003).

The Standards for Distance Learning Library Services developed by the Association of College and Research Libraries (ACRL) reiterate that “members of the distance learning community are entitled to library services and resources equivalent to those provided for students and faculty in traditional campus settings” (ACRL, 2008). Gandhi (2003) adds that DLs need specialized library and information services and that they have information access concerns that their on-campus counterparts may not have. For instance, they do not have face-to-face assistance from librarians, no physical access to print library collections, cannot receive in-person library instruction or reference services and other library services enjoyed by on-campus students.

To stress the important role of the library in distance learning, Kascus (1994) states that "the single most important contribution that librarians can make in support of off-campus programs is to ensure access to the resources required by the curriculum". ACRL (2008) and Holowachuk (1997) emphasize that having access to adequate library resources is key to the success of DLs. Lebowitz (1997) further lent credibility to this by adding that DLs need specialized support services from the parent institution so that their educational experience can compare favourably

with that of on-campus students. It is therefore the library's responsibility to provide library services to DLs equal to those that on-campus learners enjoy. But this responsibility can only be met through the recognition that such learners may require different services than on-campus users. The expanded use of ICTs in library and information service delivery is one way to reduce the barriers such learners may face in accessing library and information services and resources.

Adeyemi (2004) and Nwizu (2008) give credence to importance of ICT in distance education as they add that ICT plays a critical role in library operations. It has broken the barriers of time, distance, access and locale which impeded the use of library services and resources to enhance learning. As such, institutions must take advantage of the versatility of ICT to develop and avail resources and services to adequately meet the information needs of its DLs.

1.4 Statement of the problem

Although the University of Zambia in its 2013-2017 strategic plan intends to meet increased demand for university education through expanded provision of Open Distance Learning (ODL) as an option for mass teaching (UNZA, 2012), there is no mention of an equitable increase in library and information resources and services. Chifwepa (2006) and Kakana (2008) note the importance of the library in learning, while the ACRL (2008) standards for library services to DLs advocate for equitable access to library services for both on-campus and off-campus (distance) learners. Sadly, there has been a steady decline in library and information service provision to the DL (Kakana, 2008). This study therefore sought to explore ways in which ICT can be applied to enhance library and information service delivery to distant learners. It further sought to propose an ICT framework on library and information services support to distance learners at the University of Zambia.

1.5 Purpose of the study

The aim of this study was to explore ways in which ICTs can be applied to library and information services delivery to DLs at the University of Zambia in order to enhance service delivery. The study also aimed to recommend an ICT framework of library and information services to the DL.

1.6 Study objectives

The main objective of the study was to explore ways in which ICT can be applied to library and information services delivery to DLs at the University of Zambia in order to enhance service delivery as well as to recommend an ICT model of library and information services to the DL.

The specific objectives were to:

1. Establish distance learners' competencies to access information using ICTs.
2. Establish whether a policy on library and information services to distant learners exists.
3. Determine the extent to which ICTs are being used in library and information service provision to distant learners.
4. Propose an ICT model on library and information services support to distant learners.

1.7 Research questions

1. Do distance learners possess the necessary skills to access information using ICTs?
2. Does a policy on library & information services to distant learners exist?
3. To what extent are ICTs being used in information provision to distant learners?
4. What ICT model can the University of Zambia Library adopt to enhance provision of library and information services to distance learners?

1.8 Significance of the study

It is anticipated that the findings of the study will lead to an improved information service delivery to DLs which will in turn result in increased access to information resources. It is also hoped that increased access will translate into improved learning outcomes. This would ultimately improve the quality of graduates, who will effectively participate in national development programs. Additionally, it is hoped that improved ICT library and information services will not only benefit the DLs, but other categories of users as well. Further, other academic libraries catering for DLs will probably be able to learn from this study and hopefully improve their own services.

1.9. Limitations of the Study

The residential period, during which distance learners came for the face-to-face period of their study, was only two weeks. This therefore made it difficult for the researcher to collect data as most of the students said they were very busy with other academic activities and could thus not spare time to fill in the questionnaires.

1.10 Operational definitions

The purpose of this section is to convey the meaning that the researcher attaches to the following terms used in this study:

Academic libraries, also known as university or college libraries refer to libraries that are attached to academic institutions above the secondary school level, in order to support the teaching and research needs of students and staff. Academic libraries exist to serve the educational needs of students, support the teaching staff in terms of material needed for their teaching role, as well as provide support to academic staff in terms of their research needs (Feather and Sturges, 2003).

Distance learning, also known as distance education, correspondence or open learning, refers to a method of study that is pursued by students who are not required to attend classes at the institution offering the course of study. They learn from a location of their choice, and often at a time of their choosing (Feather and Sturges, 2003). Gandhi (2003) adds that it is a form of education in which the teacher and student are not located in the same physical space and each is expected to interact through the assistance of technology.

Distance learning library and information services, refers to those library services in support of college or university courses and programmes offered away from a main campus or in the absence of a traditional campus, and regardless of where located. These courses may be taught in traditional or non-traditional formats or media and may or may not involve live interaction between teachers and students. The phrase is inclusive of courses in programmes designated as: extension, extended, off-campus, extended campus, distance, distributed, open, flexible, franchising, virtual or synchronous (ACRL, 2008).

Distance learners, also known as distance students, refer to those people who are registered for courses at the University of Zambia and are administered under IDE. These are truly “distance

learners” in that they do not have the advantage of physical access to UNZA library and information resources and in-person services for the greater part of their study; unless they come physically to the University Library.

Information and Communication Technologies, commonly referred to as ICT, refers to computer technology with its associated hardware, software and peripherals like printers, faxes and scanners; multimedia applications, Internet, communications technology like phones, e-mail, WhatsApp, SMS, instant messaging applications like chat; electronic resources like e-journals, e-books, electronic databases, virtual collections; remote access technologies; web applications including web pages; networks and other communication technologies.

Needs, refers to required elements for students to achieve an educational objective (Hawkins and Baker, 2005).

1.11 Summary

In this section, some background information to the research problem was presented, and some historical background to distance education, as well as an outline of the aims and significance of the study.

CHAPTER TWO

Literature Review

2.0 Overview

This section covers literature relevant to this study that is written by other scholars. A review of literature is useful because a researcher can see how other researchers have handled similar problems. It can also reveal sources that one never knew existed, and can help one to evaluate one's work from a historical and comparative perspective (Leedy, 2001). Additionally, literature review can help a researcher obtain insights about how to conduct the study, which previous mistakes to avoid, and which new methods might be effective (Krathwohl, 1998).

A review of literature is also necessary so that the researcher can have a better understanding of the application of ICT in library and information service delivery to DLs. The researcher wants to gain insights into the ICT enabled library and information services to DLs, and whether university libraries have policies to guide services to DLs. Issues of learner's skills in accessing such services are also of interest to the researcher. In addition, the researcher hopes to find literature related to ICT frameworks/models on library and information services support to DLs.

2.1 Role of library in distance learning and access entitlement

Buchanan (2000) stresses that the provision of and access to library materials and services was of particular importance to DLs. Buchanan adds that a common error surrounding the provision of library resources and services to distance students is that "they can get 'it' on the Internet;" there is no need to provide additional services, many may think. Thus students are often left alone to locate and acquire materials, spend great amounts of time downloading electronic reserve materials, access supplementary resources, and decipher electronic indexes and databases. That in some extremes, the electronic indexes and databases available to on-site students was restricted by licensing and, were therefore off-limits to distance students, putting them at a serious disadvantage in their coursework. If colleges and universities want to succeed in the online education environment, they must begin to reassess the ways in which distance students are treated across the board (Buchanan, 2000).

Sampson (2003) in his study done on meeting needs of DLs where part of the aim was to find out if needs of students were being met through the distance programme, significant problems surfaced regarding issues of student support, and access to and provision of resource materials. Arguably, these are issues fundamental to the successful provision of distance learning courses, and the results both agree with aspects of the research literature (Simpson, 2000; Tait, 2000; Hyland, 2001;; Chen, 1997; Morgan, 1995; Robinson, 1995; Burge & Howard, 1990) and raise some interesting questions regarding the provision of distance education and its ability to meet the needs of learners.

This issue of student support has received renewed interest recently, with Tait (2000) and Simpson (2000) both exploring this aspect of distance learning in some detail. It surfaced that a number of students do not have access to reference material (and have expressed frustration at not being able to access the material they need to complete their work). It would appear to be worth looking into ways of providing students with the ability to access key resource material, either by establishing a relationship for this purpose with a local university or by providing access to an on-line data bank. Appleton (1997) goes so far as to state that academic institutions have a responsibility to provide off-campus students with resources and facilities equivalent to their on-campus peers. This sets the importance of this study as it seeks to find ways to enhance provision of Library services to the distance learner by recommending a model of service delivery to this group of learners.

2.2 Distance learners' ability to access information using ICTs

ICT skills are increasingly becoming a necessity if one is to fully participate in today's information society. ICT skills become essential for the distant student to access knowledge and information in pursuit of their studies. Skill to use ICT is likely to have a bearing on its use (Chifwepa, 2006 referring to Daley et al, 2001; Maguire 2005; and Yang and Cornelius, 2005).

Therefore, in as much as the standards for distance learning advocate that availability of and access to library and information resources is an entitlement and that learning institutions have the obligation to meet this, do DLs have the requisite information literacy and technological skills to access and use these resources and services? This is more so in the area of ICT enabled library services and information resources.

The ACRL Guidelines for Distance Learning Library Services therefore state that instilling lifelong learning skills through general bibliographic and information literacy instruction in academic libraries is a primary outcome of higher education (ACRL, 2008). Lebowitz (1997) observes that off-campus students often need instruction in academic research and also on the effective use of resources, particularly those available via electronic technologies. Ekpeyong (2003) goes on to add that therefore users need to be educated and trained on how to effectively use ICTs as well as other resources in the library to enhance their teaching, learning and research. Tapfumaneyi and Rupande (2013) in their survey of 210 Zimbabwe Open University DLs reiterate the importance of ICT skills training. The findings of their study indicated that in as much as the university provided e-resources and services, the majority of students (as indicated by 70 percent) lacked adequate ICT skills to take advantage of these resources and services. Thus 95 percent of DLs preferred print materials over electronic materials.

However, the library faces the challenge of trying to train library users in the use of ICTs who would not be available because of distance and who often do not have the time to undergo training but are in need of the ICT skills to enable them to access library services.

2.3 Use of ICTs in library and information service provision to distant learners

Generally, the provision of library and information services can no longer be considered as a minor activity in distance education. It is important that DLs are able to access institution library resources [and services] in a timely and convenient way (Heap, 2001).

Boadi and Letsolo (2004) in a survey entitled “Information needs & information seeking behaviour of DLs at the Institute of Extra-Mural Studies in Lesotho” came to the conclusion that information provided for DLs must be relevant, timely, easily available, and up-to-date. Findings revealed that a large majority of respondents (83.3 percent) did not use the library. The most common reason noted for not using the library was lack of time.

In order to bridge the gap between the information source and the information seeker it is necessary to use a variety of delivery strategies to take the information to the student (Gandhi, 2003 and Yusuf, 2005). The use of technology features heavily in this regard, particularly in developed countries (Watson, 1997, 2006). Watson goes on to say that the use of OPACs, on-line systems and services, networked databases and other information providers as well as other

technologically dependant information services are found in many distance education library and information services in these countries. The low cost of technology, cheap communications charges and widespread access to these facilities makes the deployment of technological based information services an important modality to provide access to information in distance learning. Once these systems of information transfer are available for DLs it makes it possible to extend their use to on-campus teaching and learning thereby introducing new paradigms in information delivery in library services (Watson, 1997).

A study done by Yang (2005) which examines the extent to which U.S. Association of Research Libraries (ARL) are providing services to their distance education library patrons actually reveals some interesting findings. Out of 103 libraries, only 62 libraries offered library services to DLs (the other institutions did not have distance learning programmes). Only 9, out 62 libraries, had a webpage dedicated to DLs. Further, only 35 of the 62 libraries had a dedicated distance service librarian. One would have thought that as the U.S is more technologically advanced, the use of technology in library services would be more significant.

Similarly, a study in which 17 DLs were studied over a period of time (i.e. interviewed 4 times over course of the year) to learn what general kinds of factors helped them in their learning experience, with specific focus to library support was carried out (Kazmer, 2002). The findings were that factors that students strongly felt supported their learning experience, specifically to library services were: responsiveness, single contact points, training, technology support and technology itself.

Kazmer (2002) goes on to explain that for responsiveness, students felt that getting questions answered quickly was important as students tended to feel separate and isolated from happenings in programme because they were not campus. They therefore needed a good e-reference service. Coming to single contact points, students felt more comfortable and thus more likely to ask questions and get their problems resolved. Training in terms of technology for remote access was considered another important factor. This involved how to use the technology itself and dealing with problems as they came up. Technical support meant having someone available to help resolve computer, software or other technical issues while technology itself meant providing the technological infrastructure to access the resources and services available (Kazmer, 2002).

Further use of technology to provide library and information services in distance learning are the delivery of information literacy, bibliographic instruction and reference skills such as on-line courses. Thus, distance students are able, through technology, to enjoy training in information related skills (Ramasodi, 2009; Cavanagh and Tucker, 1997). Findings of a survey conducted by Hines (2006) showed that the distance education faculties of the University of Montana believe that offering courses on library skills is the best way to equip DLs with skills in inquiry and independent thinking. Students must, however, be made aware of these support services if they are to fully benefit from them (Long, 2009), because there actually is a real difference between “accessibility” and “availability” (Holloway, 2008).

Participation in inter library lending agreements with other libraries is important as this enables DLs to access relevant resources at a more convenient location (Brooke 2011 citing Heap, 2001). It is particularly important to collaborate with agencies that are external to the library because without their assistance it would be impossible to provide quality library and information services to distance learners. Heap (2001) believes that what is important is not who provides the service, but its quality. It is for this reason that continuing collaboration between academic libraries, extending to national level, is important. In Zambia, the Zambia Library Consortium (ZALICO) has an important role to play to ensure that resource sharing is not just on paper but is actualized for the benefit of DLs as well.

Increasingly, library material is being linked to, or made available on, Learning Management Systems (LMS) (Kramer, 2010). The ability to provide e-resources in this way results in a substantially enriched experience for all users (Black & Blankenship, 2010). However, challenges do arise, for example those associated with intellectual property and copyright law. These can impact heavily on the digitisation and distribution of material (Alsaffer, 2007).

Together with an increase in the availability of e-journals, expanding e-book collections and open access material not only benefit DLs, but all library users (Barnhart and Stanfield, 2011). Kramer (2010) states that by providing links to Open Access material, librarians can better support DLs.

Maurya and Kumar (2008) go on to caution that although the implementation of ICT in the libraries has given rise to new forms of library and information services, effective delivery may

only occur if certain important aspects are considered. These are that first and foremost, the institution is committed to providing a high level of library services to DLs; that the initial and ongoing cost of hardware, software and connectivity charges are within the institution's financial means; and that end users (learners and faculty) have access to the ICT at their location. There is, therefore need to come up with a framework for ICT library services to DLs which should include among others policy guidelines and the range of services that must be offered to DLs to improve their learning outcomes.

2.4 ICT model/framework on library and information services support to distant learners

Before a framework of services is developed, it is important that library personnel understand the institutional as well as learner environment. For the institutional environment, Lebowitz (1997) recommends that the following is taken into consideration: programmes offered at a distance and format in which they are offered, the number of students enrolled and projections for future programmes that may be offered through distance learning. For the learner, Lebowitz (1997) advises that issues to do with location of the learner, access to library resources (is there an institutional electronic catalogue?), whether the learner requires bibliographic and information literacy instruction should be taken into account. Dew (2001) argues that in order to have a successful library program for off-campus students, librarians must understand who their students are and what they want (Dew, 2001).

A review of literature shows that the most common models of library and information services to DLs are: the dedicated department/single contact point or unit model; the integrated/decentralized services model; and the branch model.

The primary factor in designing services for DLs should be providing a single point of contact in the library for all distance learning queries/issues (Kazmer, 2002). The single contact point or dedicated department or unit within the library model has an assigned librarian - coordinator, dedicated to providing services to DLs as well as working with faculty. The librarian is the link for students, faculty and the library and is responsible for the coordination of distance library services. In this way, learners' anxieties are lessened since they have a familiar person to talk to. They are thus more comfortable and this makes them feel able to ask questions or seek help.

In a study that focused on literature that looked at roles that libraries and librarians played in distance education, Corbett and Brown (2015) found that a majority of libraries reported that they have distance librarians and staff dedicated to serving distant learners, and these library services are blended so that they are available to all students.

The benefit of having such librarians within a distance education setting is that they provide learners with instruction on how to access and use library databases and how to effectively search and choose more reliable resources. Hoffman (2011) as referred to by Corbett and Brown (2015) mentions another advantage as being that instructors spend less time answering questions and report a higher quality of work and success from the learners. As students interact with the distance librarian they become aware of the resources available to them and feel more comfortable using them for research purposes.

Lebowitz (1997) states that an advantage to having a specific librarian dedicated to helping distance education learners is that learners receive all services provided by the library, including: education and instruction; reference and research guidance; referral assistance; document delivery and reserve/requested materials; and assistance with the documentation of papers. By providing a complete array of library services to distant students, the institution shows that it understands its responsibility to distant students and that they are being proactive in meeting their unique needs.

Maurya and Kumar (2008) add that given the advancements in technology, services from the Librarian-coordinator should include computer based bibliographic and informational services and developing specialized information material, including web pages for the DLs. The key here is proactivity, creating a collection of services in anticipation of user needs.

In the integrated, or decentralized, services model, no one person coordinates or is in charge of services to DLs and staff (Lebowitz, 1997). There is no dedicated individual or department to whom learners or staff can refer their requests for material, information or special needs. In this model, the service is reactive, rather than proactive.

The branch campus structure is another variation of the service models for DLs. In this model, the branch library maintains book materials and journals in support of courses taught at the

branch campus. This library is a mini library with a branch librarian in charge of providing all services, including instruction in the use of information resources and reference assistance.

Regardless of the type of model, Lebowitz (1997), Henning (2005), Maurya and Kumar (2008) and the Standards (ACRL, 2008) recommend that Library and Information services provided to DLs should include: reference assistance ; computer based bibliographic and informational services; assistance with and instruction in the use of non-print media and equipment; and a programme of library user instruction designed to instil independent and effective information literacy skills while specifically meeting the learner support needs of the distance learning community.

Other services included in the model should be reliable, rapid and secure access to institutional and other networks, including the Internet; reciprocal or contractual borrowing, or inter-library loan services; prompt document delivery, such as a courier system and / or electronic transmission; access to reserve materials in accordance with copyright fair use policies and adequate service hours for optimum access by users.

It is very important that a promotional programme be put in place to inform the distance learning community of these services. Cardinal also is documented and updated policies, regulations and procedures for systematic development, and management of information resources (Maurya and Kumar, 2008).

2.5 Policy on library and information services to distant learners

As noted in literature (Lebowitz (1997), Ramasodi (2009), Brooke (2011), ACRL (2008), Cooper (2000) and Maurya and Kumar (2008)), policies on distance learning library services are important to a library in that they act as a framework for all its activities and help ensure that funding, personnel, time, facilities, equipment, and library resources are committed, among others. Cooper (2000) stresses that in providing adequate library support for distance programmes required funding for initiatives addressing the needs of distance learners should be set aside.

Consequently, when developing library services for off-campus/distance education students, it is necessary to consider all aspects: accreditation, guidelines for services, institutional commitment, and institutional and student environment (Lebowitz, 1997).

In order to provide quality library and information services for distance learning it is necessary for institutions offering distance education programmes to institute a philosophy that recognises the provision of library services to their students is a primary responsibility of the distance learning institution. This recognition facilitates the development of quality library services to those who learn at a distance. This responsibility must be articulated and not merely implied. A supportive and facilitating institutional philosophy ensures that DLs have access to quality library and information services to support their learning (Maurya and Kumar, 2008; ACRL, 2008). In addition, the ACRL (2008) standards add that the library must likewise include distance learning library services in its mission statement and goals, which serve as a framework for all its activities. Further, that the principle to developing library services for the distance learner is that, every student, faculty member, administrator or staff member of any institution of higher education, regardless of where located, is entitled to access the library services and resources of that institution.

Oni (2004) in her study to enhance the performance of Library operations through appropriate Information Technology, points out that a wealth of management issues must be addressed before IT can be incorporated into the library setting. It involves: knowledge of recent technological trends; an analysis of library specifications and requirements; a clear articulation of library goals and objectives; management commitment and support and ongoing user education. Agreeing with Oni (2004), the ACRL (2008) in the Standards for Distance Learning Library services state that there should be institutional commitment and support in form of policies.

With regards to the institutional and students environment, Lebowitz (1997) suggests the following:

The level at which library services are developed is determined by the programmes and courses offered, number of students enrolled in each programme, and projections for future programme/course development. Issues to do with policies, personnel and other resources as well as projections for increase in student numbers are planned for and developed here. The

library also needs to understand the potential student environment. Such aspects like location of student, whether or not the student can gain access to library resources, instruction in the use of library resources and methods of communication between the library and learners need to be considered.

In considering the location, based on previous and potential location of distance learners, the library needs to know if there are libraries within commuting distance from the learner and if these libraries have adequate resources to support the needs of the learner. If not, the library should determine how learners' needs may be met. Such issues as availability of electronic access to the library catalogue and resources and possibility of access to local library collections need to be considered. Would establishment of formal agreements with such libraries be helpful, if not, how will access to resources be guaranteed? Would it be possible to scan or photocopy needed resources, what about issues of copyright?

The best mode of providing training in use of library resources, both print and electronic needs to be determined. These resources may include those accessible through local libraries. Communication is another aspect for consideration. The means by which the library communicates with distance learners and vice-versa is of importance. The methods adopted need to be available to the majority of students.

2.6 Characteristics of the distance learner

As indicated earlier (section 2.5), it is important that the institution understands the student environment. The student environment cannot be understood fully without taking into consideration the student him-/herself. Therefore, the characteristics of the student are an important factor in coming up with library services and resources for the distance learner that will adequately meet their needs. Kularatne (1997) argues that many information provision plans failed because not enough attention was paid to the target population. He recommends that the characteristics of the target population be recognised, studied and assessed in terms of size, age, sex, distribution, accessibility, educational level, occupations, needs, disabilities, cultural characteristics, customs and traditions which are all important factors to be considered in order to work out a strategy.

Literature indicates that DLs are typically older than traditional students with the average age being more than 25 years old, and they are more likely to be females rather than males. They tend to have family and job responsibilities that prohibit them from attending traditional classes. Most of them are working while attending studies on a part-time basis, (distance learning in this case); and, they are often times disadvantaged by geographic remoteness, generally living in cities away from the main campus (Tapfumaneyi and Rupande, 2013; Brooke, 2011; Ramasodi, 2009; Chifwepa, 2006; Ashby, 2002; Halsne & Gatta, 2002; Smith, 2001; Heery, 1996). These learners generally lack peer group support for their studies and usually have very limited time for going to the library and search for the relevant literature (Gopakumar and Baradol, 2009).

Another characteristic, shared by a large number of distance learners is the shortage of time that affects so many mature and distance learning students (Brooke, 2011; Ramasodi, 2009). This shortage of time often arises from other commitments, particularly those of job and family. Time management can become a real issue – for example, simply finding time to study, to use libraries or to have discussions with fellow students (Heery, 1996). The pressures arising from a lack of time can lead to genuine anxieties.

In spite of the above, many mature distance students are often self-directed, resourceful, responsive and keen to do well. However, despite enthusiasm and hard work, distance learners can also have inadequate study skills. They can find libraries daunting (Hensley and Miller, 2010). This can be a particular problem for DLs, who are required to have the ability to learn effectively with little support from others, the institution inclusive. For this reason, distance learners may need support and encouragement from university staff, library staff inclusive.

2.7 Conclusion

The important supportive role that the library plays in distance learning cannot be overemphasized. The issue of access to library materials and services by DLs is often cited by researchers as a key component in distance education. ICT has been identified as a means of improving access to these materials and services. Much of the literature reviewed looks at studies outside Africa with quite a few looking at Africa. This study therefore added to the African literature.

CHAPTER THREE

Research Methodology

3.0 Overview

The aim of this section is to describe the research methods that were used in this study, and to explain the reasons for the choice of methods. This section covers the following: research design, study population and sample, sampling techniques, data collection instruments and procedures and data analysis.

3.1 Study design

Research design is the conceptual structure within which research is conducted. It is used to guide the researcher in generating answers to research problems (Kombo and Tromp, 2006). The survey research design was used in this study in order to collect the required data. According to Weiss et al (2001), survey research involves the collection of information from a sample of individuals through their responses to questions. They further add that surveys have the following characteristics: they are efficient in that many variables can be measured without substantially increasing the time or cost; data can be collected from many people at relatively low cost and, depending on the survey design, relatively quickly; and survey methods lend themselves to probability sampling from large populations. In fact, survey research is often the only means available for developing a representative picture of the attitudes and characteristics of a large population.

As colleges and universities increase enrolment in off-campus courses, academic libraries are experiencing an increase in the number of long-distance users who lack the option to visit the physical library. The effort to identify the most effective services for distance learners can be informed by routine surveys of distance learners about their library use (Hensley and Miller, 2010). Dew (2001) argues that in order to have a successful library program for DLs, librarians must understand who their students are and what they want. A survey is one of the most effective methods of identifying these needs (Dew, 2001).

Given the above, the researcher felt survey design was best suited for this study. The survey method was also appropriate in that it allowed the researcher to collect data from a sample of elements drawn from a well-defined population through the use of a questionnaire. Additionally, interviews were used to collect data from other key respondents.

3.2 Setting

The study was conducted at the University of Zambia, Lusaka because this was where the study group of interest (distance learners) was found.

3.3 Study population and sample size

Population refers to the larger group from which a sample is taken for measurement (Kombo and Tromp, 2006). This group has at least one thing in common, for instance students at the University of Zambia. The population in this study consisted of all distance students registered at the University of Zambia. However, the study was able to sample only from those DLs who came for the April (2015) residential school. The learners available were from B.A.NQS (1, 2 years), B.A. (3, 4 years), B.A.LIS, B.TED, B.SC.NRS, MAT3100, FRE1130, D.S.S., and D.L.E. programmes and courses.

A sample is defined by Leedy (2001) as the smaller group of examples chosen from the population on that you actually measure. The sample size for this research was 106 respondents. According to Borg and Gall (1996), a minimum sample size of 100 respondents or observations is sufficient for survey research. The sample was made up of 100 DLs, 1 representative from IDE Learner Support section and 5 Librarians from the UNZA Library, bringing the number to 106. Making up the 5 from UNZA library were, 1 representative from Library Administration, 2 librarians from User Services department and 1 librarian from Technical Services Department. Included on the library team was a member of a task group constituted within the library tasked with improving support to distance learners.

3.4 Sampling techniques

Purposive sampling was used to select DLs to whom the questionnaires were administered. Initially, Simple random sampling had been selected but when the researcher realised that this failed to yield the required response rate (only 20 out of the 100 questionnaires were filled in and

returned), then another technique had to be employed. Purposive sampling allowed the researcher to pick respondents who were conveniently and readily available to complete the questionnaires. Furthermore, at the time of data collection, registration was ongoing so the total number of DLs could not be determined and those that had registered were not willing to spare time to fill in the questionnaires. Purposive sampling was thus used to target respondents as they visited the library, waited in line for registration or visited the Lusaka IDE offices for various reasons.

For the interviews, participants were also purposely selected in that these were believed to hold key and relevant information sought by the researcher. As regards Library Administration, the respondent was selected on the basis of being in a position to give policy guidelines and strategic direction as regards library support to distance learners. Technical service was chosen because this is the department that deals with all technological issues as well as supporting the UNZA e-learning system (Moodle). Therefore it was felt that Technical staff were the best to handle ICT related issues. Further, the respondents from User services were selected on the basis that they were the Library's face and thus provided contact with the students. In this vein User Services was seen as the best choice for providing insight into the provision of services to distance learners. As regards Learner Support at IDE, this section deals with learners on a daily basis and is in charge of all distance learner support activities.

3.5 Data collection instruments and procedure

Self-administered questionnaires and semi-structured interviews were used as data collection methods for this study. The questionnaire consisted of both open-ended and close-ended type of questions. Open-ended questions were used to solicit for additional information from respondents while close-ended ones provided answers for respondents to choose from.

Ngulube (2007) observed that although no single method is perfect, if different methods lead to the same answer, then greater confidence can be placed in the validity of the conclusion. Aina (2002) adds that the questionnaire is the most commonly used data collection method in the field of library and information science. It is used to obtain the views of respondents on a series of issues pertinent to the research problem. In survey research, questionnaires were used as the primary data collection instrument. It was important that the questionnaires that were developed

were accurate measures of what the researcher wanted to measure (Busha and Harter, 1980; Van House, Weil & McClure, 1990). Further, the knowledge needed is controlled by the questions, therefore the questionnaire affords a good deal of precision and clarity (McDonough & McDonough, 1997 cited in Sampson, 2003). Furthermore, because they guarantee anonymity and they thus encourage respondents to be honest. Questionnaires can be used to collect data from a large sample in the shortest possible time (Kombo and Tromp, 2006).

It is for these reasons, coupled with the fact that confidentiality and anonymity could be assured, that this instrument was chosen.

Interview schedules, on the other hand are appropriate because they allow flexibility. In the interview method, information is collected from respondents through verbal interaction between the researcher and respondents. The interviewer prepares a list of questions that are relevant to the research, and the interview is like an oral questionnaire (Aina, 2002). Follow-up questions and clarifications can be made from responses given and additional information can be gained from the interview as participants can freely express themselves. It is also important to select suitable interviewees so that the desired information can be acquired from the interviewees (Denscombe, 2003). Therefore the interview was used to solicit information from key respondents from IDE and the UNZA Library.

Data was collected during the residential school in April (2015) and beyond in order to reach the targeted 106 respondents. The target of 6 respondents for the interviews was met but the target of DLs could not be met. Only 67 of the target of 100 filled in the questionnaire correctly. This was so because getting DLs to fill in the questionnaires was difficult as most of them declined participation on the basis that they were quite busy with other important academic activities. Others lost interest when they were told there were no incentives for filling in the questionnaire. Time was another limiting factor in that the researcher had to wait for the April residential school in order to get substantial numbers hence was behind schedule.

3.5.1 Pilot-testing

Questionnaires were pretested in order to uncover any defects in questions such as unclear or ambiguous questions as well as questions that required rephrasing because they may convey different meaning to different respondents. Babbie and Mouton (2001) point out that in

constructing a questionnaire there is always a possibility of an error. Therefore pre-testing or piloting was done to check not only for errors but also to check the ease with which respondents filled in the questionnaire, for instance. Five respondents were conveniently selected to pre-test the questionnaires while three people were selected for the interview.

3.6 Data Analysis

The statistical package for social sciences (SPSS) was used to analyse quantitative data for the closed-ended questions from the questionnaires. SPSS was used because it can easily process large pieces of statistical data and summaries it in such a way that a researcher can easily interpret. On the other hand, qualitative data from the interviews and open-ended questions were grouped into relevant themes and then described within those themes.

3.7 Ethical considerations

Participants were informed about the nature and purpose of the study and that participation was voluntary. Issues of confidentiality, anonymity, right to withdraw at any point in the study and what would be done with the information was outlined. In this way, the principle of informed consent was guaranteed as participants freely chose to take part (or not) in the research based on the information given. Further, permission from relevant University of Zambia authorities was sought.

CHAPTER FOUR

Presentation of Findings

4.0 Overview

This chapter presents the findings of the study captured from both questionnaires and interviews with selected respondents as well as presents the draft model of library support to the distance learner. It is divided into 3 main sections. Findings from questionnaires are presented in section 4.1; those from the interviews are presented in section 4.2 while the draft model is presented in section 4.3. Finally a conclusion to the chapter is presented in section 4.4.

The study sought to explore ways in which ICT could be applied to enhance library information resources and service delivery to distant learners. It further sought to propose an ICT framework on library and information services support to distance learners at the University of Zambia.

Out of 100 questionnaires distributed, 67 were filled in correctly and returned, representing a response rate of 67 percent. In addition, face-to-face interviews were conducted with 6 key informants. The key informants were a member of staff from UNZA library administration, one librarian from Technical Services and 2 librarians from Public Services in the UNZA Library. Among the key respondents was a member of a team of library staff tasked to look at ways of improving service delivery to distance learners. A member of staff from Learner Support at IDE was also interviewed.

4.1 Findings from questionnaires

This section presents findings from questionnaires.

4.1.1 Characteristics of respondents

This section gives information on characteristics of the respondents such as gender, age, marital status and year of study (see table 2 below).

Out of 67 respondents to the questionnaire, 63 percent (42) were female while 37 percent (25) represented males. As regards age, 10 percent (7) indicated that they were aged between 18 and

25, 24 percent (16) were between 26 and 33; with 36 percent (24) reporting they were in the 34 to 41 age group while the rest who represented 30 percent (20) were aged above 41 years.

As regards marital status, 72 percent (48) were married, 25 percent (17) were single and 3 percent (2) were widowed. None of the respondents indicated that they were divorced. Fifteen percent (10 out of 67) of the respondents were in first year, 18 percent (12) were doing their second year, 48 percent (32) were in their third year of study and fourth years accounted for 19 percent (13). Ninety- four percent (63 of the 67 respondents) were both working and studying and only 6 percent (4) were studying only.

Table 2: Characteristics of respondents

Response	Frequency	Percent	Cumulative %
Gender			
Female	42	63	63
Male	25	37	100
Total	67	100	
Age Group			
18-25	7	10	10
26-33	16	24	34
34-41	24	36	70
Above 41	20	30	100
Total	67	100	
Marital Status			
Married	48	71.6	71.6
Single	17	25.4	97
Widowed	2	3	100
Total	67	100	
Year of Study			
First Year	10	14.9	14.9
Second Year	12	17.9	32.8
Third Year	32	47.8	80.6
Fourth Year	13	19.4	100
Total	67	100	
Type of Student			
Studying Only	4	6	6
Working and Studying	63	94	100
Total	67	100	

Respondents were further asked to indicate their programme of study as well as their town of residence. Most of them (61 percent, i.e. 41 out of the 67 respondents) indicated that they were in the B.A.LIS (Bachelor of Art with Library and Information Studies) programme, with B.A.NQS (Bachelor of Arts, non-quota) and BSC.NRS (Bachelor of Science, Nursing) both accounting for 9 percent (6) each while under B.TED programme were 7 percent (5) and B.A.E

(Bachelor of Adult Education) had 6 percent (4). The rest (i.e. B.A. (Bachelor of Arts) and B.A.ED (Bachelor of Arts with Education)) were represented by less than 5 percent each. Lusaka town had 57 percent (38) of respondents indicating that they resided there, Chipata Town 9 percent (6) with Kabwe and Mongu having 6 percent (4) each of respondents residing there.

4.1.2 Awareness of and access to existing resources and services

The study sought to find out if distance learners were aware of UNZA Library information resources and services and also to know if they had access to such resources and services. This section therefore presents the findings with regards to awareness and access to resources and services.

In order to find out if students felt they had a right to access library resources and services regardless of where they were located and if the library had the responsibility to provide training on how to access ICT-enabled resources and services, they were asked 2 questions, tables 3 and 4 summarise their responses. A four point rating scale was used to solicit their responses. The scale comprised of 1 = strongly agree, 2= agree, 3 = disagree and 4 = strongly disagree.

When asked to state their level of agreement with the statement that “I am entitled to library resources and services regardless of where I am located”, sixty four percent (i.e. 43 of the respondents) felt they were entitled to library resources and services regardless of where they were located while 36 percent (24) disagreed.

On the question of whether UNZA library should provide training on how to access ICT-enabled resources and services, 96 percent (64) indicated that indeed the library should provide such training. This left 4 percent (3) of the respondents disagreeing with this.

Table 3: DLs’ Entitlement to library resources and services regardless of where located

Level of Agreement	Frequency	Percent	Cumulative Percent
I strongly agree	27	40	40
I agree	16	24	64
I disagree	16	24	88
I strongly disagree	8	12	100
Total	67	100	

Table 4: Provision of training to DLs on how to access ICT-enabled information resources and services

Level of Agreement	Frequency	Percent	Cumulative Percent
I strongly agree	46	69	69
I agree	18	27	96
I strongly disagree	3	4	100
Total	67	100	

Respondents were then asked if they found any problems in using UNZA library resources and services, 73 percent (49) of the respondents indicated that they did find problems while 27 percent (18) said they had no problems (see table 5 below).

Table 5: If respondents found problems using UNZA Library resources & services

Level of Agreement	Frequency	Percent	Cumulative %
Yes	49	73	73
No	18	27	100
Total	67	100	

When further asked to elaborate on why they had difficulties in using UNZA library resources and services, table 6 below shows their responses. A four- point rating scale was again used to solicit their responses. The scale comprised of 1 = strongly agree, 2= agree, 3 = disagree and 4 = strongly disagree. As regards staff support, 31 percent (21) of the respondents strongly agreed, while 22 percent (15) agreed that the fact that staff support was not always available caused them difficulty in using UNZA library resources and services. However, 8 percent (5) disagreed with 39 percent (26) strongly disagreeing that that was not an issue.

When it came to being unable to access UNZA library resources and services at a time that was convenient to them, those that agreed that this was a difficulty made up 59 percent (i.e. 40 of the respondents from whom 37 percent (25) strongly agreeing and 22 percent (15) agreeing) while those that disagreed represented 41 percent (i.e. 27 out of 67 respondents of whom 8 percent (5) disagreed, 33 percent (22) strongly disagreed).

Sixteen percent (11) (who strongly agreed) thought it was quicker to use sources other than those from the UNZA library. Twenty four percent (16) agreed with this thought. On the other hand, 16 percent (11) disagreed that it was quicker to use other sources with 44 percent (29) strongly disagreeing with this thought.

Additionally, when asked if they found the information they needed not in the UNZA Library but elsewhere, 28 percent (19) of the respondents strongly agreed and 25 percent (17) agreed with this. Those that disagreed that they found information that they needed elsewhere were represented by 46 percent (31) of which 9 percent (6) agreed with 37 percent (25) strongly disagreeing with this statement.

Further, those that indicated that they had trouble accessing resources such as databases and e-journals were represented by 62 percent (42 out of the 67 respondents of whom 34 percent (23) agreed with 28 percent (19) strongly agreeing). Conversely, 7 percent (5) indicated that for them trouble in accessing resources did not make it difficult to use UNZA library resources and services, while 30 percent (20) strongly disagreed that trouble accessing resources such as databases made it difficult to use UNZA Library resources.

With regards to the issue of downloading e-resources not always being possible, 56 percent (i.e. 28 percent (19) strongly agreeing and 28 percent (19) agreeing) indicated that it made it difficult to use the Library but 13 percent (9) disagreed that this caused any difficulty in library use. Thirty percent (20) actually strongly disagreed with the fact that being unable to sometimes download e-resources would make it difficult to use library resources and services.

Out of 67 respondents, 40 percent (27) said they had problems in using the library's resources and services because they were not aware of the existence of such. In contrast, 60 percent (42) of the respondents indicated that they were aware of the existence of resources and services, thus it not constituting a problem in the use of the library's resources and services.

Table 6: Reasons respondents found it difficult to use UNZA Library resources and services

Difficulty	Level of Agreement							
	Strongly Agree		Agree		Disagree		Strongly Disagree	
	Count	%	Count	%	Count	%	Count	%
Staff support isn't always available	21	31	15	22	5	8	26	39
Cannot access at time that is convenient	25	37	15	22	5	8	22	33
It is quicker to use other sources	11	16	16	24	11	16	29	44
I find information I need elsewhere	19	28	17	25	6	9	25	37
Have trouble accessing resources e.g. databases	23	34	19	28	5	7	20	30
Downloading electronic resources isn't always possible	19	28	19	28	9	13	20	30
I am not aware of resources and services	8	12	19	28	8	12	32	48

In order to further determine if respondents had problems in using library resources with specific regard to electronic resources, respondents were asked if they were able to download an electronic article using a link on the UNZA library website. Results (figure 1 below) showed that 45 percent (30) were able to download, 22 percent (15) said it was not possible with 33 percent (22) indicating that they did not know how to download an electronic article using a link on the UNZA library website.

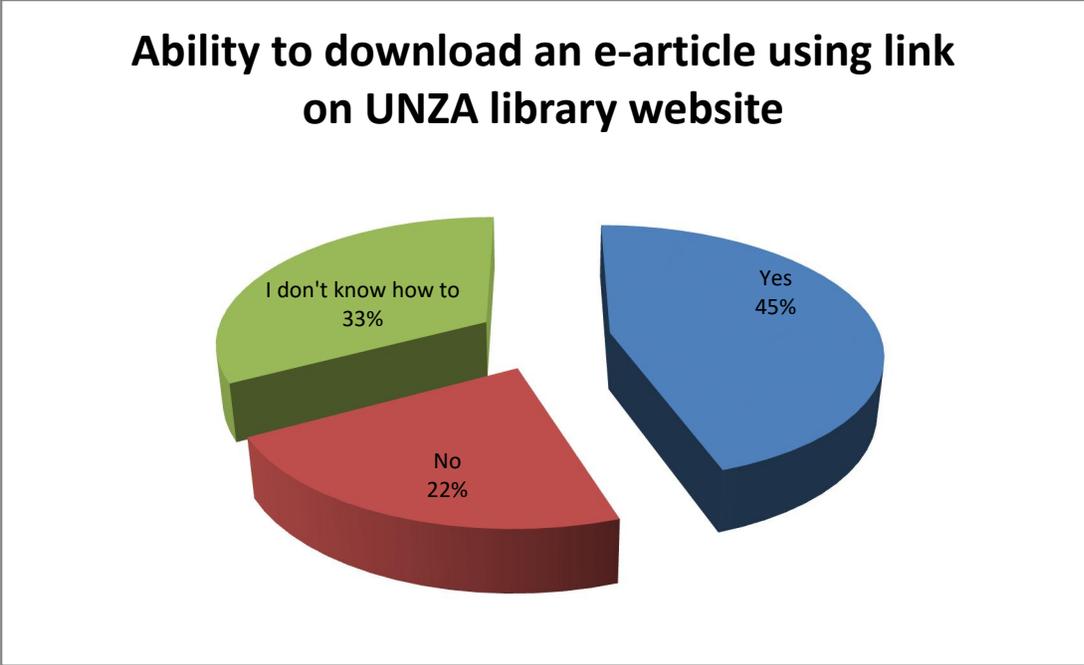


Figure 1: Ability of respondents to download an e-article using a link on the UNZA library website

When further asked if they had access to UNZA library information resources and services to help them complete their assignments, 48 percent (32) indicated that they did have access but 52 percent (35) indicated that they did not have such access.

For the 35 respondents that indicated that they did not have access to UNZA library resources and services, the researcher felt that it was important to find out where they accessed information resources from. Results in figure 2 below show that 43 percent (15) said they accessed information resources from their workplace, 17 percent (6) from the public library and 14 percent (5) indicated that they accessed information resources from other institutional libraries. Others (14 percent) said they accessed online information resources through Internet cafés, mobile phones and dongles at home while one respondent used resources at a museum library. Eleven percent (4) said they did not use any library resources at all.

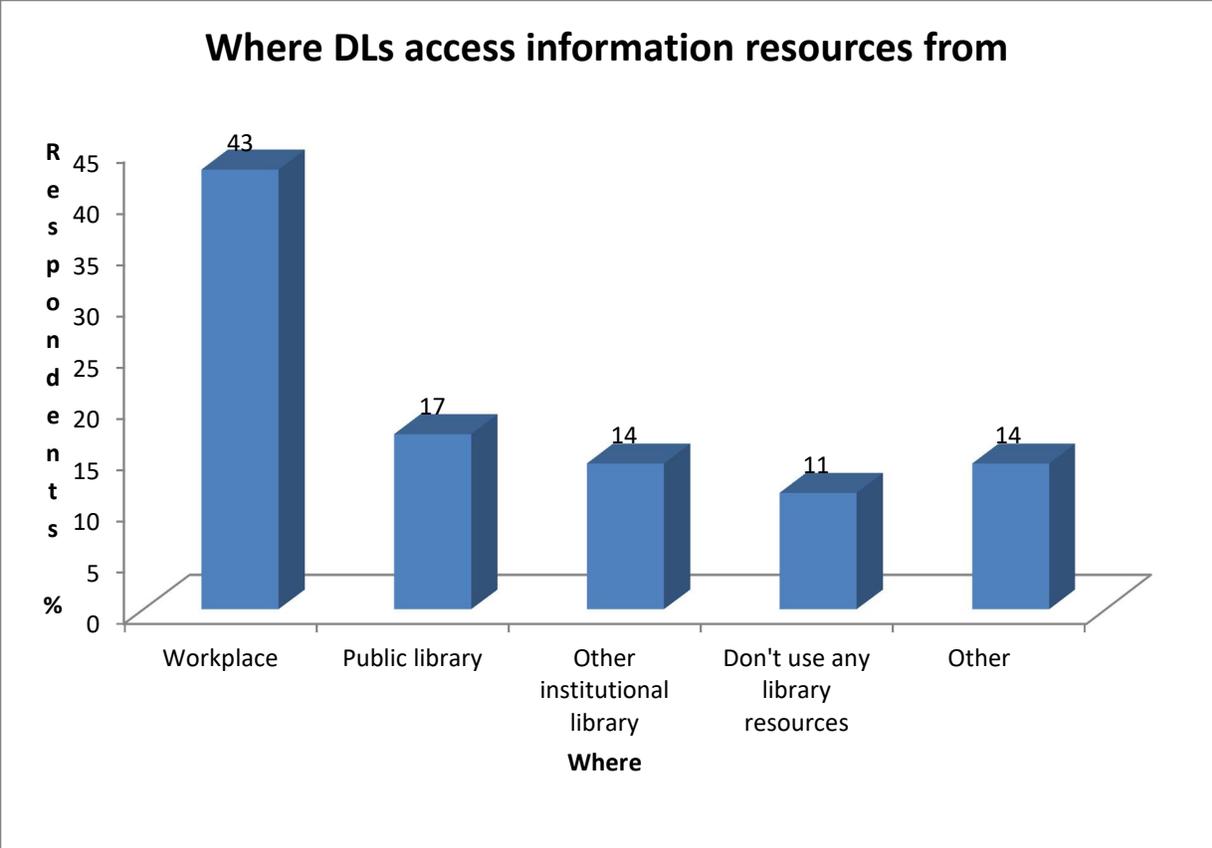


Figure 2: Where respondents access resources from if they do not have access to UNZA library resources

The study wanted to further establish what library resources and services respondents were aware of. Figure 3 below summarises what the respondents had to say. Fifty-eight percent (39 out of 67 respondents) indicated that they were aware of the OPAC (online catalogue) but 42 percent (28) said they were not aware. As regards assistance with information search and retrieval, 42 percent (28) revealed that they were aware of this service, while 58 percent (39) indicated that they were not aware of the service. As for assistance with/instruction in the use of non-print resources such as e-journals and e-books, only 19 percent (13) indicated awareness with the majority (81 percent) indicating non-awareness of the service.

The other service respondents were asked about was instruction in general library use. Respondents totalling 48 percent (32) said they were not aware of this service but 52 percent (35) said they were aware of the service. A high percentage of respondents accounting for 76 percent (51) knew about the provision of computers and Internet with some 23 percent (16) of the

respondents showing non-awareness. As regards provision of study space, 67 percent (45) indicated awareness while 33 percent (22) indicated lack of awareness.

Further, respondents were asked to indicate if they were aware of printing and/or photocopying services and 67 percent (45) said they were aware while 33 percent (22) said they were not aware. Another service respondents were asked about was provision of library print materials like books. For this service, 63 percent (42) showed awareness but 37 percent (25) showed non-awareness. As for instruction in technology use such as computers, e-mail, Internet and so forth, 43 percent indicated that they were aware of the service but 57 percent did not know about this service. Thirty-six percent (24) indicated awareness of the availability of e-resources such as research repository and e-journals with 64 percent (43) indicating no knowledge of e-resources.

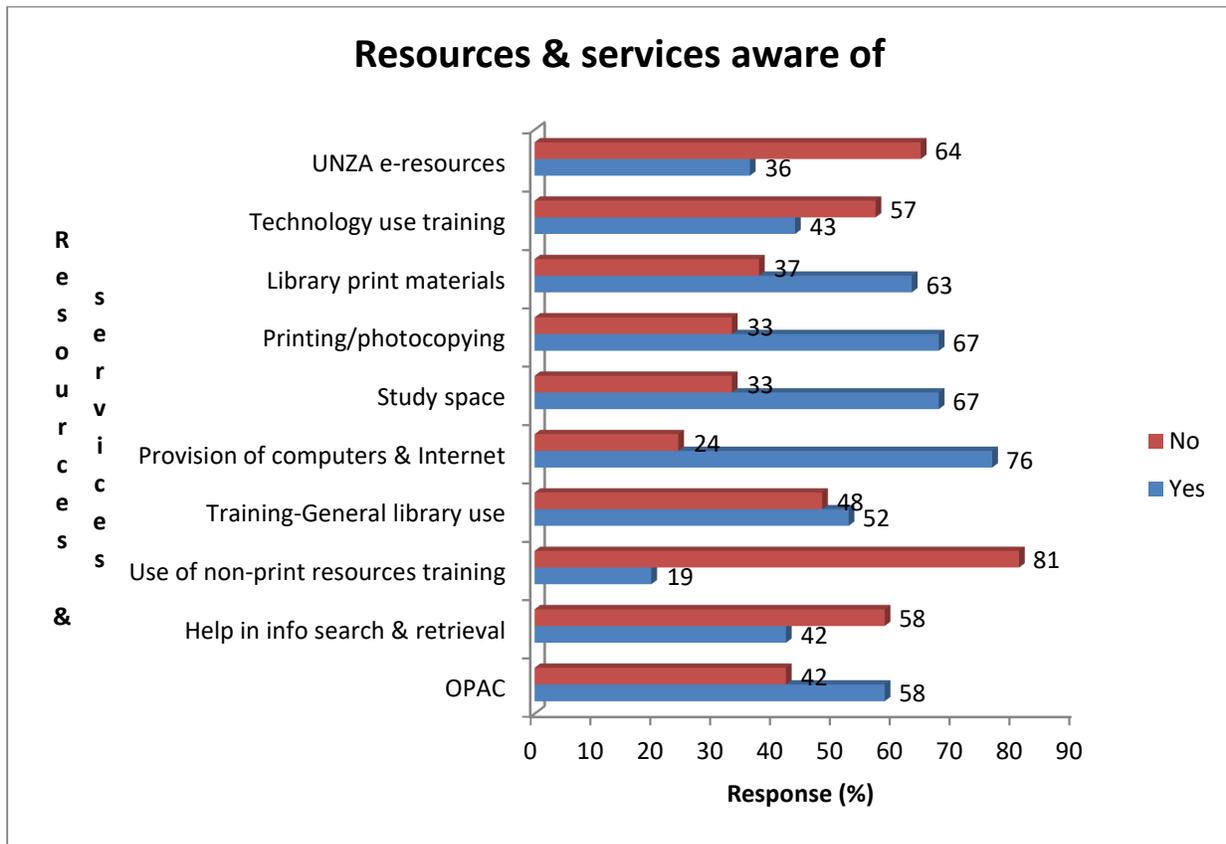


Figure 3: Library resources and services respondents are aware of

In trying to find out how respondents learnt about the mentioned resources and services they were aware of, respondents were given several options from which to choose. As can be seen

from table 7 below, the majority (57 percent i.e. 38 respondents) learnt about the services and resources from other students, followed by those who were made aware during library orientation (43 percent i.e. 29 out of 67 respondents), with 10 percent (7) getting the information from UNZA library website while only 3 percent (2 out of 67) got the information through the library's marketing programme. It would seem from these results that the majority of learners (57 percent) were made aware of the various library resources and services by their friends.

Table 7: How respondents learnt about information resources and services

UNZA Library website			
Response	Frequency	Percent	Cumulative %
Yes	7	10	10
No	60	90	100
Total	67	100	
During library orientation			
Response	Frequency	Percent	Cumulative %
Yes	29	43	43
No	38	57	100
Total	67	100	
From other students			
Response	Frequency	Percent	Cumulative %
Yes	38	57	57
No	29	43	100
Total	67	100	
Library's marketing programme			
Response	Frequency	Percent	Cumulative %
Yes	2	3	3
No	65	97	100
Total	67	100	

4.1.3 Competence levels and use of ICT based Library information resources and services

This section sought to find out ICT skills of respondents as well as their use of library information resources and services, especially those resources and services that were accessible through the use of technologies such as computers, Internet, phones and so forth. It also aimed at

find out if respondents actually sought assistance from library staff as they looked for information for their assignments.

When asked to indicate which resources they preferred between physical (such as print material like books) or electronic, 28 percent (19) said they preferred physical resources while 72 percent (48) preferred electronic ones. When further prompted to explain their preference of resource type, respondents gave a range of reasons. For those that preferred physical resources, the most common reason was that this type of resource was not inconvenienced by challenges of ICTs such as Internet or power failures. Other reasons included not being conversant with electronic resources, that physical resources like books were easier to reference and that it was easier to read a book rather than the screen. One respondent went further to state,

Electronic materials give me eye problems.

Reasons advanced for preference of electronic resources centred on the perception of ease of access and currency (up-to-datedness) of resources with some respondents stating that such resources allowed multiple access to a single resource, unlike a book for instance. One respondent actually stated that electronic resources had no challenges of “material borrowed” which was common with physical resources, especially in the case of few copies versus large numbers of students. Another comment was that similar resources were made available by various sources thus making it easier for students to assess such resources for use.

It can thus be seen from the findings that most respondents preferred the convenience of electronic resources.

The researcher was further interested in finding out if lack of access to UNZA library resources influenced the respondents preference of electronic resources over physical ones (see table 8 below). Of the 48 respondents that preferred electronic resources, 44 percent (21) did have access to UNZA library resources while 56 percent (27) did not. Moreover, 42 percent (8) out of the 19 respondents that preferred physical resources did not have access to UNZA library resources or services.

Table 8: Cross-tabulation of resources preferred by DLs and access to UNZA Library resources & services

		Access to UNZA Library resources & services?		Total
		Yes	No	
Resources preferred	Physical e.g. print material like book	11	8	19
	Electronic	21	27	48
Total		32	35	67

The above result seemingly indicates that access (or lack of access) to UNZA library resources is not an important factor when it comes to preference of resources (electronic or physical). Therefore a statistical analysis was done using chi-square test in order to determine if there was a relationship between access to UNZA library resources and the respondents' preference of electronic resources over physical ones. The two formulated hypotheses were that:

1. H_0 = there is no relationship between access to UNZA library resources and preference of electronic resources over physical ones.
2. H_1 = there is a relationship between access to UNZA library resources and preference of electronic resources over physical ones.

The plan of analysis was that the significance level of 0.05 be used in order to maximize accuracy of the findings. If the test statistic probability (p-value) was less than the significance level, the null hypothesis would be rejected. However, if the p-value was greater than the significance level then the null hypothesis would be accepted. Results of the test are presented in table 9 below.

From the test, it was determined that:

$\chi^2 = 1.092$; df (degree of freedom) = 1; p-value = 0.296; Since the p-value is greater than the significance level (0.05), then the null hypothesis is accepted, there is a relationship between access to UNZA library resources and preference of electronic resources over physical ones.

Table 9: Chi-Square Tests on relationship between access to UNZA library resources and preference of electronic resources over physical ones

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.092 ^a	1	.296		
Continuity Correction ^b	.598	1	.439		
Likelihood Ratio	1.093	1	.296		
Fisher's Exact Test				.416	.220
Linear-by-Linear Association	1.075	1	.300		
N of Valid Cases	67				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.07.

b. Computed only for a 2x2 table

Respondents were then asked to indicate if they had made use of the UNZA library during the previous academic year. Those that did not make use of the library were further asked to explain why they did not use the library. Purpose for use was required from those that indicated that they did use the library and the following were the results:

Seventy-three percent (i.e. 49 of the 67 respondents) had made use of the library the previous academic year while 27 percent (18) had not. The most common reason for non-use was that there simply was no time to use the library because of the hectic schedule they had. Others said they could not use the library because it was always full and thus could not find reading space. One respondent cited outdated books as the reason for not using the library while another one mentioned tight work schedule as the reason.

When asked to state purposes for which they had used the library the previous academic year, figure 4 below summarises the responses.

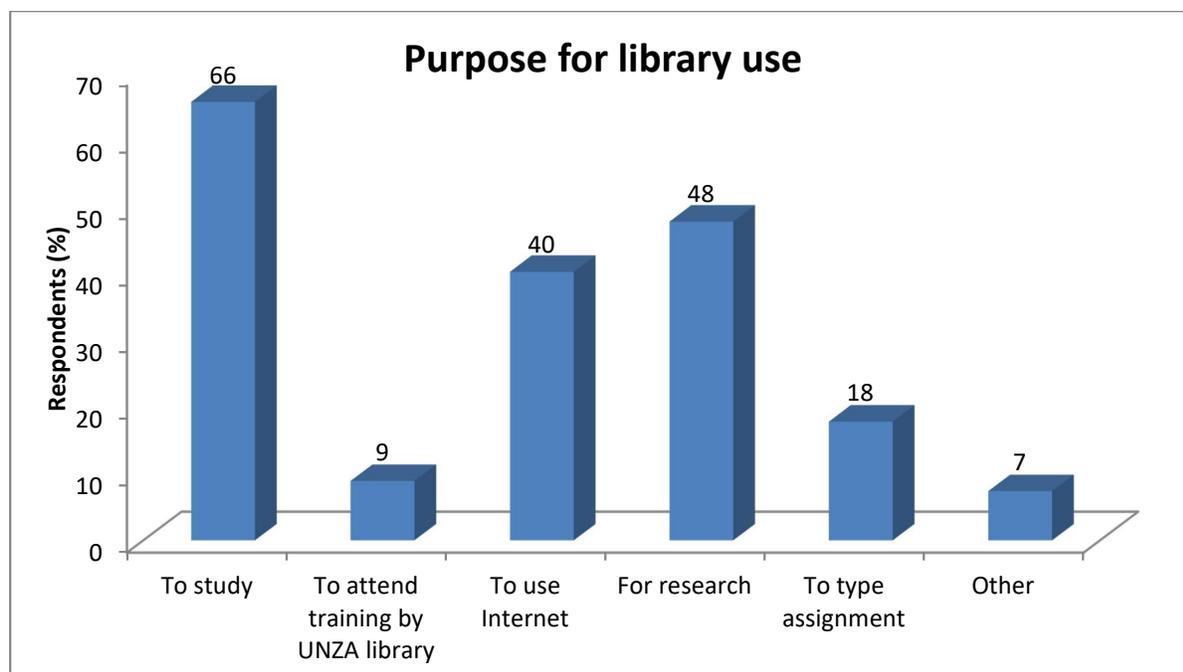


Figure 4: Purposes for making use of the UNZA Library

Reasons for using the library were to study as indicated by 66 percent (44), for research (48 percent i.e. 32 out of 67 respondents), to use the Internet as shown by 40 percent (27), and to type assignments (18 percent i.e. 12 respondents). Nine percent (6) indicated the used the library for the purpose of 9 attending training offered by the UNZA library (9 percent). Other reasons, as indicated by 7 percent (5) included photocopying various documents and writing research projects. The findings seem to indicate that most of the distance students used the library to study, conduct research or to use the Internet.

In order to find out what respondents thought ICT meant, respondents were asked to select from a list what they thought defined ICT best. Eighty-five percent (57) of respondents perceived ICTs as computers or laptops. Yet others thought of ICTs as being Internet/email (87 percent i.e. 58 of the respondents), others, making 87 percent (58), defined it as e-resources, with 75 percent (50) each saying that ICT was phones or network hardware and software. Additionally, others believed ICT to be application software such as Microsoft word, PowerPoint and SPSS (66 percent i.e. 44 out of 67) while 67 percent (45) had a different view of looking at ICT as printers and faxes. Some respondents, 54 percent to be exact, described ICT as including all the options from the list. That is to say, ICTs included computers/laptops, Internet/email, e-resources, phones, and so forth. A summary of the findings is presented in table 10 below.

As can be seen from these findings, most distance learners thought of ICT in terms of computers/laptops, Internet/email, phones and Network hardware and software and to a lesser extent as encompassing all the information communication technologies listed in the table 10 below.

Table 10: Definition of ICT

Response	Frequency	Percent
Computers/laptops	57	85
Internet/e-mail	58	87
E-resources	58	87
Phones	50	75
Network hardware & software	50	75
Application software	44	66
Printers/faxes	45	67
All of the above	36	54

Having described what they believed ICT was, respondents were then asked if they had ever used ICT resources and services such as computers, Internet and e-books for academic purposes. Ninety-four percent (63) indicated that indeed they had used ICTs for academic purposes while 6 percent (4) said they had not. When further asked to state purposes for which ICT was used, responses are summarized in figure 5 below. Responses varied with 31 percent (21) indicating that they used ICT in order to access the UNZA library website, 43 percent (29) said it was used to access UNZA information resources and 72 percent (48) said they had used the Internet to search for and retrieve information. A further 48 percent (32) said ICT had enabled them search the online catalogue, OPAC. Additionally, 64 percent (43) indicated that they had used ICT for the purpose of typing assignments.

It would seem from the results that ICT was mostly used for Internet information search and retrieval, closely followed by typing assignments then for OPAC search.

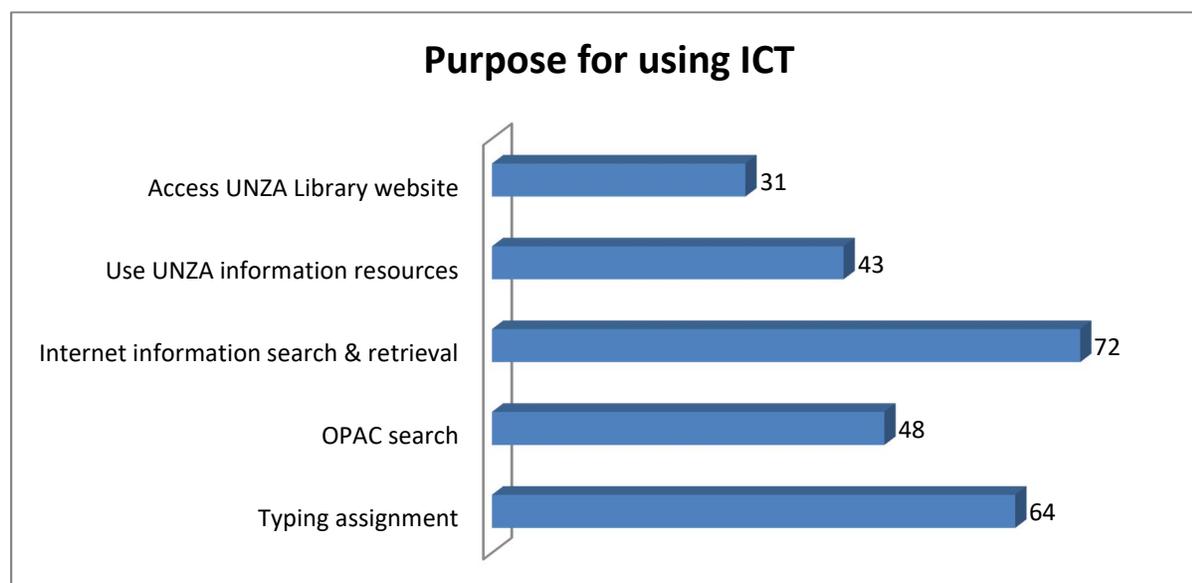


Figure 5: Purpose for which ICT was used

When asked to indicate how they learnt to use the various ICTs they were using, 57 percent of the respondents (38) were self-trained, 9 percent (6) learnt through training by UNZA library, 54 percent (36) through friends and others (25 percent i.e. 36) through training offered by the various schools. Other ways, indicated by 11 percent (8), included training by British Council, own children, online tutorials and training received at workplaces. See table 11 below.

Table 11: How respondents acquired skill to use various ICTs

Response	Frequency	Percent
Trained myself	38	57
Training by UNZA Library	6	9
Through friends	36	54
Training by school	17	25
Others	8	11

The above findings therefore seem to suggest that ICT skills are mainly self-taught or acquired through friends.

Respondents were then asked to rate their ICT skills. A five-point rating scale was used to rate their responses where 1 = excellent; 2 = very good; 3 = good; 4 = fair and 5 = poor. Those that rated themselves as having excellent ICT skills represented 15 percent (10) of the respondents. This group felt that they did not require assistance in the use of various ICTs being used. Respondents that felt they rarely required assistance and therefore rated their skill level as very good made up 25 percent (17) while those who rated themselves as good (sometimes require assistance) made 37 percent (25). Some respondents however rated their skill levels as fair (21 percent) with one respondent saying they had poor ICT skills and as such always require assistance when working with ICTs. Results are summarised in table 12 below.

Table 12: Respondents' rating of their ICT skills

Rate	Frequency	Percent	Cumulative %
Excellent (require no assistance)	10	15	15
Very good (rarely require assistance)	17	25	40
Good (sometimes require assistance)	25	37	77
Fair (require assistance most times)	14	21	98
Poor (Always require assistance)	1	2	100
Total	67	100	

Findings in table 12 seem to suggest that ICT skills range from excellent to good, with a few distance learners with fair to poor ICT skills.

The study further sought to establish if the age of the respondents had a bearing on how they rated their ICT skills. This was done by cross-tabulating the variable age by ICT skills. Table 13 below shows the result. The age groups of 34 to 41 and above 41 were of particular interest since these had the highest number of respondents and the difference in total numbers was not huge (i.e. had difference of 4 respondents). Findings were that of the 10 that rated themselves as having excellent skills, 4 were aged between 34 and 41 while none were above 41. Those that rated themselves as having very good skills had 4 respondents in the age group 34 to 41 while

the above 41 group had 8 respondents. Further, respondents that rated their ICT skills as good were 10 in the 34 to 41 age group while those above 41 were 6. The fair to poor rating, had 6 respondents each in both age groups.

Table 13: Age * rate of ICT skills Cross-tabulation

		How rate ICT skills					Total
		Excellent (require no assistance)	Very good (rarely require assistance)	Good (sometimes require assistance)	Fair (require assistance most times)	Poor (Always require assistance)	
Age	18-25	2	1	3	1	0	7
	26-33	4	4	6	2	0	16
	34-41	4	4	10	5	1	24
	Above 41	0	8	6	6	0	20
Total		10	17	25	14	1	67

To summarise the above findings, the age group 34 to 41 had 18 respondents out of 24 rating their ICT skills from excellent to good while the above 41 age group had 14 out of 20 respondents with ratings from excellent to good. There appears not to be much difference between the ratings of the two age groups thereby signifying that in this case, age did not influence the respondents rating of their ICT skills.

Having rated themselves with regards to ICT skills, respondents were then asked to state if it would be desirable for UNZA library to organise trainings to improve distance learners' ICT skills. Their skill levels and response to this question were important for the researcher in that this information could be used to tailor-make ICT enabled resources, services and user education programmes for distance learners. Eighty five percent (57 out of 67) of the respondents indicated that yes, it would be desirable for UNZA library to organise such trainings, leaving only 15 percent (10 out of 67) who thought to the contrary.

Further, respondents were asked to indicate the benefits such trainings would offer. Results indicate that benefits to respondents would include ability to type assignments/reports on one's own (19 percent); finding it easier to search for and use needed information (45 percent) and more importantly (according to the findings), it would open up more information sources to improve academic work as indicated by 60 percent (see table 14 below).

Table 14: Benefits of ICT training to improve skills

Response	Frequency	Percent	Cumulative %
Ability to type assignments/reports on my own			
Yes	13	19	19
No	54	81	100
Total	67	100	
Easier to search for & use information			
Yes	30	45	45
No	37	55	100.0
Total	67	100	
Opens up more & richer info sources			
Yes	40	60	60
No	27	40	100
Total	67	100	

The researcher was further interested in seeing how respondents in the various skill level groups reacted to the issue of training to improve ICT skills of distance learners. Table 15 below shows the findings. Of the 10 respondents who had indicated that they had excellent ICT skills implying that they required no assistance in the use of ICTs, 5 indicated that training was needed while 5 indicated that it was not necessary. Those that rated their skills as good had 14 out of 17 indicating that training would be desirable but 3 indicated that no training was needed. As for those that rated themselves as good, all but 1 (24 out of 25) said it was desirable for the library to provide ICT training. One out of the 14 who rated their ICT skills as fair thought it would not be desirable to organise training to improve one's ICT skills. The one person who rated themselves as poor agreed that it would be desirable for UNZA library to organise trainings to improve ICT skills.

Table 15: Cross-tabulation of self-rate of ICT skills and desire to have ICT training to improve skills

		Provide ICT training to improve skills		Total
		Yes	No	
How rate ICT skills	Excellent (require no assistance)	5	5	10
	Very good (rarely require assistance)	14	3	17
	Good (sometimes require assistance)	24	1	25
	Fair (require assistance most times)	13	1	14
	Poor (Always require assistance)	1	0	1
Total		57	10	67

Based on the findings, one would therefore say, regardless of how distance learners rated their ICT competency, it would be a welcome idea for the UNZA library to organise training that would help them improve their ICT skills.

The researcher then wanted to find out if preference of electronic resources, as indicated by 72 percent (i.e. 48 respondents) over print resources (indicated by 28 percent (19 respondents)) was influenced by the respondents' ICT skills. This was done by cross-tabulating type of resources preferred by respondents' rate of their ICT skills. From the 10 respondents that rated themselves as having excellent ICT skills, 6 preferred electronic resources while 4 preferred physical ones. The other findings were that out of 17 that rated their ICT skills as very good, 13 preferred electronic resources over physical (as indicated by 4 respondents); 19 out of 25 whose skills were good indicated that they preferred electronic resources with 6 indicating that they preferred print. Further, of the 15 that rated their skills as fair to poor, 5 preferred physical resources leaving 10 who preferred electronic ones. These findings are summarised in table 16 below.

Table 16: Cross-tabulation of Resources preferred and How DLs rate ICT skills

		How rate ICT skills					Total
		Excellent	Very Good	Good	Fair	Poor	
Resources preferred	Physical e.g. print material like book	4	4	6	4	1	19
	Electronic	6	13	19	10	0	48
Total		10	17	25	14	1	67

Based on findings above, it does seem that the respondents' ICT skills may have an influence on their preference of electronic resources over physical resources.

The researcher was also interested in finding out how those who acquired ICT skills through self-training compared with those who received such training through friends when it came to ICT skills rating. The self-trained and those trained by friends were selected for further analysis as these seemed to be the main means through which training was acquired as indicated by 38 and 36 respondents respectively (see table 11).

Of the 38 respondents that trained themselves, 7 rated their ICT skills as excellent, 13 as very good, 12 as good with 6 rating their skills as fair (see table 17 below). On the other hand out of the 36 respondents that were trained by their friends, 3 indicated their ICT skills as being excellent, 8 indicated that their skills were very good, 11 had good skills, 13 had fair skills while 1 indicated having poor ICT skills (see table 18 below).

Table 17: Cross-tabulation of How DLs rate their ICT skills and skills acquired through self-training

		Trained myself		Total
		Yes	No	
How rate ICT skills	Excellent (require no assistance)	7	3	10
	Very good (rarely require assistance)	13	4	17
	Good (sometimes require assistance)	12	13	25
	Fair (require assistance most times)	6	8	14
	Poor (Always require assistance)	0	1	1
Total		38	29	67

Table 18: Cross-tabulation of how rate ICT skills and skills learnt through friends

		Through friends		Total
		Yes	No	
How rate ICT skills	Excellent (require no assistance)	3	7	10
	Very good (rarely require assistance)	8	9	17
	Good (sometimes require assistance)	11	14	25
	Fair (require assistance most times)	13	1	14
	Poor (Always require assistance)	1	0	1
Total		36	31	67

It therefore appears from the results that respondents that indicated that they acquired their ICT skills through self-training rated their skills higher as compared to those that were trained by friends.

In order to find out if distance learners have ever been unable to get required library resources and what they did in that event they did not, a couple of questions were posed to them. Firstly, respondents were asked to indicate whether or not they had ever been unable to locate library resources they needed to which 73 percent (49) indicated yes while 27 percent (18) said no.

Further, those respondents that indicated yes (49) were asked to briefly state the problem that stopped them from getting the needed resources. A number of reasons were given among them the following: Some respondents cited lack of library skills as the reason for being unable to find information they needed. They said that because they didn't know how to use the library, they did not know how to begin to look for what they needed. And one respondent added,

Library staff were not at all helpful, so I left without getting the information I needed to complete my assignments. Not all of us know how to use the library.

Other problems included inability to access e-resources outside UNZA network, lack of skills to search online, being told that needed resources had already been borrowed by someone else (in case of print material) and poor orientation. These findings seemingly suggest that there is need to develop/improve trainings to improve library use and online search and retrieval skills.

In the event that respondents needed help in finding information for their assignments, they were asked to indicate who they would *first* ask for help. Those who sought help first from Library staff at UNZA accounted for 24 percent (16) while those who first consulted library staff at a local library constituted 9 percent (6) of the respondents. Others were students in the same course (60 percent) and friends or family members (6 percent) with others making 1 percent. See table 19.

Table 19: Who respondents asked first when they need help in finding information

	Frequency	Percent	Cumulative %
Library staff at UNZA	16	24	24
Library staff at local library	6	9	33
Other students in same course	40	60	93
Friends/family member	4	6	99
Other	1	1	100
Total	67	100	

Given these results, it would appear that respondents were more comfortable consulting fellow students than any other person, library staff inclusive.

When asked to indicate if UNZA library staff were usually helpful, 19 percent (13) indicated that library staff were always helpful with 67 percent (45) saying that library staff were only helpful

sometimes. Eight percent (5) stated that library staff were never helpful and 6 percent (4) said that this question was not applicable to them. It would therefore seem that the majority of the respondents perceive library staff as not always helpful. See table 20.

Table 20: If UNZA library staff are usually helpful

	Frequency	Percent	Valid Percent	Cumulative Percent
Always	13	19	19	19
Sometimes	45	67	67	87
Never	5	8	8	94
Not applicable	4	6	6	100
Total	67	100	100	

According to the findings as summarised in table 19, distance learners seem to prefer to first seek help from colleagues (40 out of 60 respondents) rather than UNZA library staff (16 out of 60 respondents) and they perceive library staff as not always helpful (45 respondents). The study thus sought to establish if perception that staff were not always helpful was a factor in their choice of who to consult first whenever they needed help. Results, as summarised in table 21 below, indicate that of the 40 respondents that reported that they first sought help from other students in the same course, 24 perceived UNZA library staff as only helpful sometimes, while 4 perceived staff as never helpful. However, 8 respondents indicated that library staff were always helpful with 4 indicating that this question was not applicable to them.

Table 21: Cross-tabulation who DLs asked first for help finding info and If UNZA library staff are usually helpful

		Are UNZA library staff usually helpful?				Total
		Always	Sometimes	Never	Not applicable	
Who asked first for help finding info needed	Library staff at UNZA	4	12	0	0	16
	Library staff at local library	0	6	0	0	6
	Other students in same course	8	24	4	4	40
	Friends/family member	0	3	1	0	4
	Other	1	0	0	0	1
Total		13	45	5	4	67

Findings seem to suggest that perception that staff were not always helpful was indeed a factor in their choice of who to consult first whenever they needed help.

When further asked to indicate if it would be desirable to have a specific contact person/desk in the library dedicated to distance learners' queries, the response was overwhelmingly yes. A four-point rating scale was used where 1= I strongly agree; 2 = I agree; 3 = I disagree and 4 = I strongly disagree. One and two were grouped together to mean agree and three and four were grouped to mean disagree. Therefore those who agreed that a dedicated person/desk be set up in the library to handle distance learners queries/consultation were 96 percent (64) leaving those that disagreed with 4 percent (3). This would suggest that for the distance learner, having a contact point (either desk or person) for all consultations/queries was important for them. Findings are indicated in table 22 below.

Table 22: If would be desirable to have dedicated desk/person for distance learners queries

	Frequency	Percent	Cumulative %
Strongly agree	50	75	75
Agree	14	21	96
Disagree	1	1	97
Strongly disagree	2	3	100
Total	67	100	

4.1.4 Challenges faced by distance learners and suggestions made

This section presents challenges faced by distance learners, suggestions they made for means of communication as well as improvement in access to library information resources and services.

In order to learn more about the challenges distance learners faced in relation to using the library, a number of challenges were listed from which they had to rank from the least to the greatest challenge. A five point ranking scale was used where 1 = strongly disagree, 2 = disagree 3 = neutral, 4 = agree and 5 = strongly agree. Strongly disagree and disagree have been combined to

mean disagree while strongly agree and agree have been combined to mean agree. A summary of the findings is presented in table 23 below.

The first challenge was a feeling of isolation. Forty two percent (28) thought this did not present a great challenge thus disagreed while 55 percent (37) seemed to agree that this did present a challenge but 3 percent (2) would not give their position on this and thus remained neutral. It would therefore appear that feeling isolated is indeed a challenge for the distance learner in relation to library use.

As for lack of confidence/knowledge in using the library, 58 percent (39) did not think this presented a challenge but 37 percent (25) saw this as a challenge. Five percent (3) decided to remain neutral on this.

The other challenge was inability to access some resources/services from outside UNZA where 38 percent (25) believed this not to be a challenge. However, 58 percent (39) of respondents thought this was indeed a challenge in terms of using the library.

The fact that it takes too long to retrieve information due to low bandwidth was yet another challenge to be ranked. Although 37 percent (25) did not see this as a challenge and 10 percent (7) remained neutral, 52 percent (35) however indicated that this was a challenge. As for distance from the library, 41 percent (28) did not agree that this was a challenge but to the contrary, 54 percent (36) did see this as a challenge when it came to using the library. Five percent (3) decided not to give their view on this and as such remained neutral.

A further challenge was that of inadequate ICT skills such as using a computer. When asked to indicate if this was a challenge or not, 58 percent (39) indicated that inadequate ICT skills did not present a challenge in using the library though 31 percent (21) stated that it was a challenge and 10 percent (7) were neutral on this.

As regards balancing studying with other commitments such as work or family, 40 percent (27) believed this not to be a challenge at all but 60 percent (40) admitted that it was quite challenging balancing study with family and/or work. For the 60 percent of respondents, this then would prove a challenge when it came to using the library.

When asked to look at inability to contact library staff using ICT such as email, 39 percent (26) indicated that this did not present a great challenge but other respondents (54 percent (36)) believed this to be a challenge. Eight percent (5) remained neutral on this.

As for difficulty in finding and assessing quality of information for assignments, findings show that those who disagreed that this was a challenge (48 percent (32)) were about the same number with those that believed it to be a challenge (49 percent (33)) with 3 percent (2) remaining neutral.

Regarding inability to consult a librarian when the respondent is not physically at UNZA, 38 percent (25) said this was not a challenge but the majority (62 percent, i.e. 42) said that it presented a great challenge in terms of library use.

Table 23: Greatest challenges to distance learners in relation to using the library

Challenge	Disagree		Neutral		Agree	
	F	%	F	%	F	%
Feeling of isolation	28	42	2	3	37	55
Lack confidence/knowledge in using library	39	58	3	5	25	37
Inability to access resources/services outside UNZA	25	38	3	5	39	58
Low bandwidth	25	37	7	10	35	52
Distance (library is too far)	28	41	3	5	36	54
Inadequate ICT skills	39	58	7	10	21	31
Balancing study with family/work commitments	27	40	0	0	40	60
Inability to contact library staff using ICT	26	39	5	8	36	54
Difficulty in finding/assessing quality of information	32	48	2	3	33	49
Inability to consult librarian remotely	25	38	0	0	42	62

In an open-ended response question, respondents were then asked to give other challenges they faced in terms of access to library information resources and services. The challenges given included the following:

That distance learners could only access the library’s resources and services during residential school so their academic work suffers. Additionally, some recommended books were usually not available and in any case, distance learners could not borrow material after 17 hours (when most of their classes ended). Further, that most resources were not accessible remotely thus making it quite challenging to do assignments and research when away from campus. Other challenges advanced were lack of knowledge to use the library as well as inadequate ICT skills. Added to this was the fact that in as much as there wasn’t enough time to consult experts (library staff), some library staff were unwilling to assist in accessing material, thus posing another challenge for distance students. One student went on to say,

*For me, library services are non-existent for the distance learner.
Can UNZA please do something?*

One of the greatest challenges distance learners faced in relation to using the library was balancing study with family/work commitments as indicated by 40 of the respondents. This was ranked as the second greatest challenge. The researcher was therefore interested in finding out if marital status of the respondent played a role in this regard. Did more married respondents for instance, indicate that they faced this challenge? A cross-tabulation of marital status and balancing study with family/work commitments was done and the results are summarised in table 24 below. Out of the 40 respondents who indicated that balancing study with work/family commitments was a challenge for them, 29 were married, 10 were single and 1 was divorced.

Table 24: Cross-tabulation of Marital Status and Balancing study with family/work

		Balancing study with family/work commitments		Total
		Disagree	Agree	
Marital Status	Married	19	29	48
	Single	7	10	17
	Widowed	1	1	2
Total		27	40	67

The findings above seem to suggest that married respondents were more likely to face the challenge of balancing studying with family/work commitments when it came to library use.

Having established that 96 percent (i.e. 64 out of 67 respondents as shown in table 22 above) indicated that it was desirable to have a desk/person dedicated to distance learners' queries/consultation, the researcher wanted to further establish why respondents felt such a desk/person was necessary. One of the ways was to check if the fact that respondents perceived UNZA staff as not always being helpful may have influenced their desire to have a dedicated contact/desk established (as indicated by 67 percent, that is 45 of the 67 respondents). Of the 45 that indicated that library staff were only helpful at times, 44 indicated that it would indeed be desirable to have a dedicated contact person/desk dealing with distance learners' queries/consultations (see table 25 below). However, respondents that perceived staff as always helpful also seemed to indicate a desire for a dedicated desk/person as shown by 11 out of 13 of the respondents (i.e. the 7 who strongly agreed and the 4 that agreed).

Table 25: If UNZA library staff usually helpful * Dedicated distance learners contact/desk Cross-tabulation

		Dedicated distance learners contact/desk				Total
		Strongly agree	Agree	Disagree	Strongly disagree	
Are UNZA library staff usually helpful?	Always	7	4	0	2	13
	Sometimes	34	10	1	0	45
	Never	5	0	0	0	5
	Not applicable	4	0	0	0	4
Total		50	14	1	2	67

Based on the findings in table 25 above, it would therefore appear that perception of the helpfulness (or unhelpfulness) of staff did not influence the respondents' desire to have a dedicated contact/desk to deal with their queries/consultations. As the study had still not yet established why respondents indicated that it was desirable to have a desk/person dedicated to distance learners' queries/consultation, the researcher decided to carry out further analysis. This was done by trying to establish if the challenges of a feeling of isolation; lack of remote access to

resources/services; and inability to consult a librarian remotely each had a bearing on the desire to have a single contact/desk set up. Results are summarised in table 26 below.

Firstly a cross-tabulation of a feeling of isolation by dedicated distance learners contact person/desk was done. Findings were that of the 37 respondents that indicated that a feeling of isolation presented a great challenge in relation to using the library, 34 indicated a desire to have a dedicated person/desk to handle their queries/consultation. This left only 3 who did not express such a desire.

Then a cross-tabulation of lack of remote access to resources/services by dedicated distance learners contact person/desk was done. Results showed that of the 39 respondents that indicated that lack of remote access to resources/services did present a great challenge in relation to using the library, all but one felt that having a dedicated contact person/desk to deal with distance learners' queries/consultations was desirable.

Thereafter the challenge of inability to consult a librarian remotely was cross-tabulated with dedicated distance learners contact person/desk. Findings were that of the 42 respondents that indicated that lack of remote consultation presented the greatest challenge in terms of library use, the majority (40) showed a desire to have a dedicated contact/desk established for distance learners.

Table 26: Explaining desire to establish dedicated person/desk

Challenge	Dedicated desk?		Total
	Yes	No	
A feeling of isolation	34	3	37
Lack of remote access to resources/services	38	1	39
Inability to consult librarian remotely	40	2	42

Therefore findings in table 26 above seem to suggest that a feeling of isolation, lack of remote access to resources and services and inability to consult a librarian remotely may each have influenced the respondents' desire to have a dedicated contact/desk established for distance learners. When asked which technology they would recommend UNZA library uses as a means of communicating to them, students ranked their responses as in table 27 below. Students were asked to rank their preferences from 1 (most preferred) to 5 least preferred. The most preferred means of communication was email (82 percent), followed by dedicated website for distance learners (73 percent), UNZA library website (57 percent), UNZA e-learning system (54 percent), SMS (51 percent) and WhatsApp (40 percent). The least preferred were Facebook and chat/instant messaging with 24 percent each.

Table 27: Preferred means of communication

Means of communication	Percent of students by rank order			
	1	2	3	4
E-mail	82	6	2	10
Dedicated website for distance learners	73	3	5	19
UNZA library website	57	6	10	27
UNZA e-learning system	54	15	4	27
SMS	51	12	6	31
WhatsApp	40	6	6	48
Facebook	24	13	3	60
Chat/instant messaging	24	12	4	60

As a wrap up, respondents were then asked to state what they would want the UNZA library to do in order to improve their learning experience at UNZA. The majority of the respondents called on the library staff to be more helpful with requests for information as one student stated,

Most of us (distance students) have problems in using the library and given that we have very little time during residential, library staff should help us find what we are looking for.

In line with staff being more helpful, respondents further suggested that having a desk dedicated to distance learners' queries and requirements would be quite helpful.

Respondents also felt that programmes to provide them with skills on how to locate and retrieve information should be more frequent and further called on the library to improve on the way orientation was done at first year. Respondents therefore called on the library to "scale up user education". A number of the respondents also said that their learning experience would be greatly improved if they had access to resources even when they were outside the UNZA network. One student added,

Enable remote access to resources, distance students also need them.

We cannot all come to Lusaka to use the library.

Other ways of improving the learning experience as suggested by respondents included extending borrowing time to 19 hours, creating libraries in distance education centres, having a dedicated webpage for distance learners as well as that the library should improve on the wireless signal strength of Edurom.

4.2 Findings from interviews

As earlier indicated, 5 members of staff from UNZA library and 1 from IDE were interviewed. From the library, interviewees were a member of staff from UNZA Library administration; 1 librarian from Technical Services; 2 librarians from Public Services and a member of the team constituted in the library to look at how library services to distance learners could be improved was also interviewed. Further, from IDE a member of staff from Learner Support was interviewed.

4.2.1 Characteristics of respondents

Of the 6 members of staff whose data was collected through face-to-face interviews, 1 was female while the rest were male and all the respondents were aged above 41 years.

4.2.2 UNZA Library administrative staff

As a preamble, the respondent was asked to indicate age and how long had served in their capacity in administration. The response was above 50 years and had served in that capacity for about 7 years.

The respondent was then asked to state how services and resources were currently being provided to distance learners. The respondent stated that these were only provided when the learners came for residential school and that after that (when they left campus), they only had access to the institutional repository. When further prompted to indicate if there was a particular person, desk or set of services designed specifically for the distance learner, the response was no.

The researcher also wanted to find out the challenges the library faced when it came to library support for DL. The respondent indicated inability to provide the distance learner with library resources as the major challenge, adding,

The library postal service where books and other information resources could be sent to the distance learner no longer exist. Also the special collection for distance learners was discontinued. Funding here was obviously an issue.

Other challenges were that the library was unable to provide remote access to its resources and services, thus meaning this group did not get access and support equivalent to their on-campus counterparts. The respondent further added that this put them at a great disadvantage as they had to heavily rely on lecture notes. To compound this, the library had no official collaborative or cooperative agreements with other institutions to allow distance learners use their libraries. ICT enabled services and resources were either inaccessible or non-existent for the distance learner, the respondent further added.

Given the mentioned challenges, the respondent was asked if was satisfied with the level of support the Library was currently offering to distance learners, both general and ICT enabled support, the answer was no. The respondent went on to explain that most learning was done when the students were away from campus therefore support services were inadequate. He added,

The situation will soon change. We are embarking on the establishment of the Information Literacy Department in the Library which will actively take up the responsibility for all user education initiatives.

Having realized that distance learners were getting inadequate library support, the respondent was asked to state the library's vision when it came to ICT enabled resources and services. "Create resource centres in all provincial centres that would provide reading space and ICT resources and services", was the response. Further, these should operate like branch libraries and therefore the library should provide staffing for these centres. Also close collaboration with IDE was, according to the respondent, key in plans to improve support to distance learners. He further added that this collaboration should not only be with IDE but extend to other institutions as well. Additionally IDE had plans to connect all centres to the Internet by 2017.

When further asked if aware of the existence of international standards for Libraries in higher education as well as those of distance learning library services, the response was no. These standards dealt with equity issues and rights of distance learners, plus guidance on how libraries should place themselves as strategic partners in educating students. The respondent however mentioned the existence of a quality assurance framework at SADC level that gave guidance on the basic library services that must be accessible to distance learners.

The researcher then wanted to find out if UNZA library had a policy on distance learning library services and what would be the important elements to include in such a policy. Such a policy did not exist, reported the respondent. As regards elements to include in such a policy, the respondent indicated the following: funding; staffing; collaborative linkages with other units within the university, especially IDE; cooperative linkages with other institutions; minimum resources and services accessible; and assigning roles and responsibilities.

The respondent was then asked what he considered would be the best way (model) for UNZA Library in terms of managing library resources and services to distance learners. The respondent said that the library having resources and services tailored towards meeting the unique needs of distance learners would be the best way of managing resources and services to the distance learner. That these tailored made resources and services should be accessible from a single point such as a portal on the IDE web page.

4.2.3 Other library staff

4.2.3.1 Provision of library information resources and services to distance learners

Respondents were asked to indicate how the provision of library information and services to distance learners was organised. Their response was that no distinction was made between distance learners and on-campus students. That in fact, most distance learners only had access to resources and services during the residential phase of their study, which was about two weeks. One respondent added that all e-resources, except the institutional repository, could only be accessed within the UNZA network. Respondents were further asked if there was a particular person, desk or set of services designed specifically for distance learners. Respondents indicated that there was none.

Respondents were then asked how distance learners were made aware of information resources and services available to them and indeed any other relevant information. Findings indicate that the UNZA library web pages and orientation programmes were the main ways through which information was given. When asked how effective these methods had been in marketing the library's resources and services to distance learners, one response was that they had not been effective. One of the reasons for this was that not all students in the distance learning programme attended orientation. A contrary response was that these methods had been effective, the only drawback being inability to access the UNZA web pages by some students in far flung areas.

The question then asked was if distance learners accessed e-resources such as databases and e-journals in the same way as on-campus students. No, was the response as one respondent further clarified that these resources were only accessible on-campus and not accessible once outside the vicinity of UNZA campus. As regards the library having a dedicated web page for distance learners, it was indicated that none existed.

As for the question of how the library provided its own physical resources to distance learners, several options were presented. These were if the library (a) posted books, (b) scanned and e-mailed resources, (c) posted photocopied resources and (d) only provided when learner physically visited the library. Only provided when learner physically visited the library was indicated as the way physical resources were provided. This implies that those that did not physically go to the library were not provided with any physical resources.

Respondents were further asked as to how the library provided user education in library use to distance learners. Findings showed that face-to-face training, coupled with information given during orientation as the ways in which user education was done. In the same vein, the study further sought to find out how information literacy skills and information enquiry services were provided to distance learners. For provision of information literacy, face-to-face training and printed guides were used while information enquiry services were only provided when the learner physically visited the library (mainly during residential school period).

As a follow-up, views on the effectiveness of the above mentioned training were sought. One respondent thought it was effective but others thought to the contrary stating that learners had little or no time to attend the training because of busy schedule during residential period.

When asked if satisfied with the current level of library support to distance learners, all respondents said no. The fact that most learning is done when distance learners are away from campus clearly puts them at a disadvantage as they have no access to UNZA library information resources and services, added another respondent.

When further asked if aware of the existence of international standards for Libraries in higher education as well as those of distance learning library services, all librarians said no. These standards dealt with equity issues and rights of distance learners, plus guidance on how libraries should place themselves as strategic partners in educating students.

As regards the existence of a deliberate (written down) policy on library services to distance learners, respondents said no such policy existed at UNZA. When further asked if it would be desirable to have such a policy, respondents said yes, as this would guide the provision of services to distance learners in addition to compelling the library to provide the required resources and services.

4.2.3.2 Librarians' perceptions of challenges faced by distance learners in relation to library use

This section includes findings on what librarians perceive are challenges faced by distance learners in terms of library use as well as suggestions for improved support to distance learners.

The first challenge was a feeling of isolation. One of the librarians interviewed joined the 42 percent (28) respondents that disagreed that a feeling of isolation was not a challenge but the others thought this was indeed a challenge. It would therefore appear that feeling isolated is indeed a challenge for the distance learner in relation to library use.

As for lack of confidence/knowledge in using the library, contrary to the views of the majority of students, all librarians perceived lack of confidence/knowledge in using the library as a great challenge to distance learners. To add weight to this, during the interview, one librarian added,

no information literacy courses are offered to distance students at UNZA. This makes it very difficult for such students to search for information independently.

The other challenge was inability to access some resources/services from outside UNZA. All the interviewees recognized this as being a major challenge as distance students, especially those living outside Lusaka, could only access these resources during residential school. Once they left campus, they had no access.

The fact that it took too long to retrieve information due to low bandwidth was yet another challenge to be ranked. Although the majority of students indicated that this was a challenge, respondents to the interview did not agree on this. One thought this presented a challenge while the others perceived it as a non-challenge. Coming to distance from the library, the respondents agreed with the majority of students (54 percent) that distance from the library was indeed a challenge when it came to library use.

A further challenge was that of inadequate ICT skills such as using a computer. When asked to indicate if this was a challenge or not, interviewees had strong opinions when it came to inadequate ICT skills. They believed that for the distance learner, there was no choice but to be adequately skilled in terms of ICT. This was so because most of the services and resources could (or would) only be accessible by means of ICT.

As regards balancing studying with other commitments such as work or family, contrary to the views of students, the t librarians who were asked on this were of the opinion that this should

not prove challenging in terms of library use. The majority of students though considered this a challenge.

When asked to look at inability to contact library staff using ICT such as email, interviewees agreed with the minority of students that this did not present a challenge in terms of library use.

As for difficulty in finding and assessing quality of information for assignments, findings show that the librarians disagreed on this. One stated that this should not present as a challenge at all because library staff were on hand to assist in finding and assessing quality of information. However the other librarians said this was indeed a problem for most distance learners and pointed out that library staff were not always available to assist the students.

Regarding inability to consult a librarian when the respondent is not physically at UNZA, those interviewed were with the majority of students on this, inability to have remote consultation was a barrier to effective library use.

When asked to give their view on what would be the best way (model) for UNZA Library in terms of managing library resources and services to distance learners, all respondents thought the single contact point/desk model would be best for UNZA. Thereafter decentralize by creating satellite libraries in IDE provincial centres.

4.2.3.3 Challenges/barriers in supporting needs of distance learners

Respondents were asked to state what main challenges or barriers they faced with regards to library support to distance learners. Respondents indicated that one of the major challenges was that most distance learners did not take part in orientation programmes thus making it difficult for them to use the library facilities. One respondent said,

Obviously that we are unable to provide this group with access to our resources and services similar to what on-campus students enjoy is of great concern.

Other challenges indicated included lack of deliberate information literacy courses for distance learners, not having a specific collection for them as well as limited time allocated for residential school. Due to limited time, residential period is so packed with other academic programmes that students had no time for the library, added another respondent. Also lack of provincial

resource centres and not having cooperation agreements with provincial and other institutional libraries was cited as a major challenge in supporting and meeting the needs of distance learners. Given the challenges faced in supporting the needs of distance learners, respondents were further asked to indicate if ICT would help solve or reduce some of these challenges. The response here was yes, ICT would indeed help in some way. Respondents were therefore asked to say in what ways it would help. One of the responses was that it would be easy to send distance learners information through email or to answer their queries online as is the case in virtual libraries. Another respondent added that through digitizing key collections of the library and making them available online. These could then be accessed anywhere at any time.

As regards if training staff in technology use would help improve service delivery to distance learners, the response was positive. One respondent added that as a matter of fact, the UNZA library in collaboration with IDE would soon embark on a programme of training lecturers in the use of the UNZA e-learning system (Moodle) so that they could place learning material and support there.

4.2.3.4 Suggestions for improvement

Using a four-point rating scale, respondents were asked to state their level of agreement that the statements below represented a significant opportunity to develop/improve library support to distance learners. These were (a) use of social networking sites like Facebook; (b) changes in copyright law to allow for digitizing material; (c) technologies to support user education; (d) e-referencing and (e) remote access to library resources.

As regards use of social media, only one respondent strongly disagreed with this while the rest agreed that this would indeed create a significant opportunity of improving library support. One respondent said there were actually plans for the library to have a presence on Facebook so that they could interact with learners.

Regarding the question of changes in copyright law to allow for digitizing material, all respondents felt that did represent a significant opportunity to improve library support to distance learners. As for technologies to support user education, online tutorials, videos and interactive trainings were suggested as possibilities for not only distance learners, but every other library user. Therefore, this was seen as a significant opportunity for both improving and developing

user education programmes. One respondent cautioned though that such technologies would be less useful if learners were not ICT literate and therefore called for enhanced ICT training for the learners.

Introducing e-referencing and remote access to library resources would, according to findings, significantly improve library support to distance learners. One respondent further add,

We are currently working with the University Centre for ICT to find ways of making our e-resources remotely accessible but we first need to find a way of registering and authenticating our users.

On being asked whether there was anything else the respondents wanted to add, the following is what they said:

- (a) the marketing aspect of our resources and services as well as programmes should be enhanced;
- (b) We need to create a page on the IDE website and possibly create links to library resources and services;
- (c) we need a written down policy to guide us on services and responsibilities pertaining to supporting the information needs of distance learners;
- (d) have a dedicated desk for distance learning services;
- (e) a vibrant ICT facility with resources available everywhere - UNZA website, Moodle with learning sites and link to the library collection, added another;
- (f) prepare an information kit that is given to students as they register

4.2.4 IDE – Learner Support staff

This section presents findings from the interview with staff in the Learner Support department at IDE.

The interview started by asking how long the respondent had been working in the Learner Support Department. Eight years, was the response. The respondent was then asked to state how many IDE provincial centres existed. The respondent stated that there were currently 10 provincial centres. When further asked to indicate what the number of distance learners in

UNZA was, the response was that registration was still going on but estimated at least over six thousand students.

Then the respondent was asked to indicate the services learner support offered to the students. He reported that among the services included advertising for programmes that were being offered through IDE; coordinating communication of academic and administrative nature; providing psychosocial counselling to students; and distribution of study materials and other relevant information to students. This was done through various channels like email, UNZA IDE web pages, the post, courier services; express mail and utilizing IDE centres.

With regards to challenges faced when supporting the needs of students, the respondent indicated that there were indeed some challenges. When asked to elaborate, the respondent reported that among the challenges were lack of a helpdesk at IDE that could coordinate issues faced by both staff and learners. Another challenge was reliance on other units to provide certain functions as this resulted in delays. He further added that as there were no provincial libraries, distance learners depended heavily on lecture notes and past exam papers to fulfil their information needs. But added that these resources were usually inadequate, hence the learner being disadvantaged. Further, as IDE had no control over the means used in sending information and study materials to students, some of these things got lost in the post, added the respondent.

The respondent was then asked if was satisfied with the current level of support being offered to distance learners. The response was no. Thereafter, the researcher wanted to know what plans IDE had to improve support to distance learners when it came to accessing library information resources and services, the respondent replied that plans included establishing regional libraries in all provincial centres, build the collection in these libraries and have staff dedicated to providing services. He added,

This can of course only be done in close collaboration with the UNZA library.

Other plans to improve access included ensuring that the library made all digital resources remotely accessible; that to connect all IDE provincial centres to the Internet with the pilot being Kitwe and Livingstone.

Coming to the establishment of a policy on distance library services, the respondent indicated that such a policy would be of great help as it would help coordinate library services and also address issues of funding. He added that at the moment, the IDE sometimes bought books for students to use in the various centres. This was because there was no guidance on which unit was responsible for collection building in the centres.

When asked if there was anything further that he wished to add, he stressed,

We need to invest in ICT as it is a backbone to all our services. There is also need to have staff dedicated to providing library services to both the distance learner and staff in our centres.

4.3 Other findings pertaining to library policy and model of library support to distance learners

Given that the UNZA Library did not have a written down policy for distance learning library services, coupled with the fact that respondents to the interview indicated that existence of such a policy would help in guiding and improving support to the distance learners, a search of literature and University websites for such policies was deemed necessary. The researcher felt it was important to understand what others have said about the necessity of such policies, what the contents of the policies should be as well as find examples of such policies. It was hoped that findings would help the UNZA Library to come up with its own policy on distance learning library services. It was also found that in order to come up with a sustainable service model for distance library support, an institution needed to have a written down policy to guide the provision of such support. Below are the findings.

4.3.1 Policy

Policy documents must contain the following:

4.3.1.1 Policies

Policies would include collection development, acquisition and circulation policies. Others would be policies pertaining to copyright, cooperation, collaboration and resource sharing issues.

4.3.1.2 Personnel

Staffing at various levels should be committed to the provision of library services to distance learners with roles and responsibilities described.

4.3.1.3 Facilities and equipment

These should include buildings; reading, consulting, shelving and office space; remote access technologies; computers, printers, chairs, desks; appropriate lighting and Internet connectivity.

4.3.1.4 Library resources and services for distance learners

The UNZA library should plan for and make accessible resources that will meet learners' needs for all assignments, complement curriculum, meet teaching and research needs of faculty, and ensure access to resources regardless of where one is located. Services should include, but not limited to, information literacy; ICT literacy; tutorials on how to use the library; assistance and training on how to access both physical and electronic resources; consultation and reference services, technology to allow remote access; e-resources such as journals, databases, institutional repository, e-books; and interlibrary loans.

4.3.1.5 Documentation

This will among others include user guides, and other library instructional materials, mission, goals and objectives, policies, regulations and procedures pertaining to library use.

4.3.2 Model of library and information services support to distant learners

Findings of the study indicate that both distance learners and staff prefer the single contact model where services and resources are organised and accessible from one point. Added to that, the branch campus model was chosen for resource centres to be setup in the IDE provincial centres. The branch library offers resources and services dedicated to the distance learning needs, therefore ultimately functions as the single contact model.

The single contact model is preferable in that the dedicated librarian/department will over time be able to understand and anticipate the needs of distance learners, and thus design resources and services to meet those needs. Additionally, this person/department acts as an advocate for distance learning library support such as funding, thereby ensuring that the needs of distance learners receive the attention in library planning that they deserve. On the other hand, students are more comfortable addressing their requests or issues to a single contact point, as expressed by 96 percent i.e. 64 out of 67 respondents in this study.

Thus based on results and what was been found in literature and other university library websites, table 28 below summarises what should be contained in the model of library services to distance learners.

Table 28: Model of distance learning library services and resources

PARAMETER	REQUIRED	ISSUES TO CONSIDER
1. Institutional environment	1.1 programmes – which schools, what programmes 1.2 No of students/programme; 1.3 format – how e.g. via Moodle, when (timeframe); 1.4 projections for future	Power outages (e.g. load shedding); personnel (library & faculty); policies; funding ; on-going input/collaboration from faculty, course developers + library
2. Student environment	2.1 location of student; 2.2 access to resources – physical and electronic 2.3 delivery of needed material 2.4 instruction in use of resources 2.5 communication-learner & library	Is library within reasonable commuting distance; are resources available adequate to support needs, if not how will needs be met; do learners have ICT & information literacy skills; how will user education be done e.g. printed guides, tutorials on website; communication – email?
3. Policies	3.1 Management 3.2 Policy on distance learning library services 3.3 Collection development & acquisitions policies	Act as guide to development of services & resources; Needs & outcomes assessments
4. Mission, goals, objectives	4.1 Align with institutional + IDE	Does IDE have goals/objectives related to library resources & services?
5. Funding	5.1 Sources of funding 5.2 Commitment	Separate funding committed to distance learning support; sources could include student fees, mgmt., IDE, generated within lib
6. Personnel	6.1 Staff dedicated to DL	Training, commitment, flexible working hrs
7. Collaboration, cooperation, partnerships	7.1 Written down agreements	Collaboration – IDE, course developers, lecturers; library – course planning + development; integrate info literacy skills; appropriate library resources & services Cooperation – other universities, colleges Partnerships – technical support
8. Collection building	8.1 Funding 8.2 Responsibility	Which unit is responsible for funding; who builds the collection (centre or branch libraries?)
9. Facilities, equipment & communication tools	9.1 Computers, printers, Internet connectivity (include wireless), desks, chairs + others deemed necessary 9.2 Branch	Bandwidth, load-shedding, secure & fast connection to library's e-resources; learners' email addresses; utilizing Moodle for interaction between library & users
10. Resources	10.1 Access technologies 10.2 Training – how to use access	Availability of access technologies (computers, Internet, web pages); state of print material (wear

	technology + resource itself 10.3 Electronic	& tear, currentness, numbers); format – e.g.PDF, HTML, etc.; ways of availing licensed & open access resources
11. Services	11.1 Basic services – e-reference/consulting, search engines, borrowing, renewing, technology to allow remote connection, web based tutorials	Power outages; access to computers, Internet + other technologies; characteristics of DLs (e.g. extending lending hrs after 19 as majority DLs work, have no physical access to UNZA library); develop DL web page on Library’s website with links to resources, services, tutorials, request for assistance; how will be made accessible
12. Documentation	12.1 Policies; mission statement; cooperative/collaborative agreements, user guides, information kits; technical support agreements	How will be made accessible to students & staff

4.4 Conclusion

From the findings, it would appear that both students and staff have some common issues they need addressed. These are that a dedicated person/desk be put in place in the library to deal with distance learners needs; that the library steps up user education programmes; that resource centres be set up in the IDE provincial centres; and that students should be able to access the UNZA library resources and services, regardless of the location of the students. Further, a policy on distance learning library support needs to be established. This policy will provide guidance on the provision of resources and services to the distance learner and will ultimately set standards for support.

CHAPTER FIVE

Discussion of Findings

5.0 Overview

This chapter discusses the findings of the study on application of ICTs in library information resources and services to distance learners at the University of Zambia. Issues discussed include characteristics of the distance learner; ICT competence levels of distance learners; use of ICT information resources and services; and provision of library information resources and services. Challenges faced in the use and support of information resources and services and suggestions for improvement are also discussed. Also included in the discussion is a model of library information resources and service delivery to the distance learner.

5.1 Characteristics of respondents

It is essential for librarians to know who distance learners are in order to serve them effectively. It is equally important to know the characteristics of distance learners in that this aids in planning for services and resources for distance learners, including in policy formulation. Many library information and service provision plans fail because not enough attention was paid to the target population (Kularatne, 1997).

The findings of this study have supported literature that indicate that distance learners are typically older than traditional students with the average age being more than 25 years old (60 out of 67 respondents for this study), and they are more likely to be females (42 out of 67 respondents for this study) rather than males. They tend to have family and job responsibilities that prevent them from attending traditional classes. Most of them are working while attending studies on a part-time basis, distance learning in this case. This study shows that out of 67 respondents, 48 were married and the majority (63) were working. Further, they are often times disadvantaged by geographic remoteness, generally living in cities away from the main campus (Ramasodi, 2009; Halsne & Gatta, 2002; Smith, 2001).

Chifwepa (2006) had different findings though when it came to gender. For him, the findings were that there were more males (59 percent) than females (41 percent).

5.2 Distance learners competency to access resources and services using ICTs

5.2.1 ICT definition

Findings, as indicated in section 4.3 show that most distance learners thought of ICT in terms of computers/laptops, Internet/email, phones and Network hardware and software and to a lesser extent as encompassing all the information communication technologies listed in table 10. ICT is a convergence of information, communication and computing technologies and thus encompasses computers/laptops; Internet/e-mail; e-resources; phones; network hardware and software; application software; printers and faxes. Chifwepa (2006) agrees with this definition as he refers to Blurton (1999) as looking at ICT as:

A diverse set of technological tools and resources used to communicate, to create, disseminate, store and manage information.

5.2.2 ICT skills

Going into this study, the researcher had the perception that distance learners' ICT skills were mostly fair (where learners required assistance most times) to poor (with learners requiring constant assistance). Findings of the study were however contrary to this perception. The majority of respondents actually rated their ICT skills from excellent to good (77 percent) with the minority (23 percent) rating their skills as fair to poor. This suggests that distance learners would seemingly have no problems in accessing ICT enabled library information resources and services. This could in part be seen in their preference of electronic resources over physical ones as indicated by the majority of learners (72 percent). In contrast, Tapfumaneyi and Rupande (2013) found that 95 percent of distance students preferred print resources as compared to electronic resources because they possessed limited skills in ICTs.

Could distance learners preference of one type of resource (physical or electronic) be linked to their ICT skills as suggested by Tapfumaneyi and Rupande (2013) or could this be attributed to other factors such as lack of access to institutional resources? This study went on to establish if there was a link between preference of resources and ICT skills by cross-tabulating resources preferred (physical or electronic) by rate of ICT skills (see table 16). The study confirmed Tapfumanyi and Rupande's findings in that ICT skills may have influenced the respondent's preference of resource type, in this case, preference of electronic over print (physical) resources.

With regards to whether lack of access to institutional resources was a factor in preference of resource, this study established that lack of access to institutional resources, in this case UNZA library was indeed an important factor in the preference of resources. For UNZA this preference was for electronic resources (72) over physical ones. It is therefore important in organizing resources to be made accessible to the distance learner that ICT skills are taken into consideration. Of equal importance is ensuring that these resources are accessible to those learners that cannot physically access the library. Lack of access to institutional resources by learners is a disadvantage that was discussed by Lebowitz (1997) that sadly remains true today. Libraries need to develop strategies of how to build services to meet the growing demands and needs of distance learners, these include strategies to develop and implement services and technologies (Corbett and Brown, 2015).

Conversely, Chifwepa's findings on skills of distance learners at UNZA showed that more students either needed help or had never used ICTs (Chifwepa, 2006). One could then conclude, based on results of this study, that for UNZA, distance learners' ICT skill levels have tremendously improved. Further, that learners' ICT skills and access (or lack of access in this case) are important factors in accessing library resources and services. It is thus worth improving access to library resources and services through the use of ICT.

Literature has also shown that there are perceptual differences between the age categories (Thompson, 1998 as referred to by Khasseh, Moghaddam and Jowkar, 2009) and that younger learners have better ICT skills than the older learners. This study therefore went on to establish if age had a bearing on how respondents rated or perceived their ICT skills. Contrary to literature, findings of this study showed that with regard to ICT skills, perceptual differences in rating did not exist across age groups. The majority of the respondents (52 out of 67), spanning across the different age groups, rated their ICT skills from excellent to good. Therefore, age had no bearing on how the respondents rated their ICT skills. Thus there were no perceptual differences between the age categories.

Caution should however be exercised in that in as much as distance learners have abilities to use ICTs like the computer, training in use of the e-resource or e-service itself should be provided. For instance, when respondents were asked if it was possible to download an electronic article using a link on the UNZA library website, only 45 percent (30) indicated that they were able to

download. The rest (55 percent) said it was either not possible or they did not know how to download an electronic article using a link on the UNZA library website. This assertion is further strengthened by Brooke (2011) and Lebowitz (1997) who add that distance learners often need instruction on the effective use of resources, particularly those available via electronic technologies. Sampson and Oni further support this as they state that distance learners needed to be adequately equipped with appropriate skills to enable them utilize these [ICT enabled] facilities.

5.2.3 Purposes for which ICT was used

As for purposes for which ICTs were used, the majority (72 percent) indicated that they used the Internet to search for and retrieve information, followed by those that used ICT for purposes of typing assignments (64 percent), with 48 percent saying they had searched the UNZA OPAC, closely followed by those that indicated that they had accessed UNZA information resources (48 percent) with the least use being to visit the UNZA Library website. These findings show that distance learners actually use ICT for academic purposes.

However, the use of UNZA library information resources, as compared to information resources got from the Internet is low. This could, to a large extent, be attributed to the fact that UNZA information resources (both physical and electronic) are only accessible within the confines of UNZA campus and once learners leave campus, access is no longer possible. Another factor at play here could be the limited period (2 weeks) of residential school. From the researcher's observation, learners are kept very busy during residential school with lectures, tests, presentations and other academic activities such that they have very limited time to use UNZA library information resources and once they leave campus, the only option available to most to meet information needs is the Internet. In any case, by the time classes are over at 17 hours, the library's issue desk would have closed and as such learners are unable to borrow any library material. This could be the reason that distance learners suggested extending borrowing hours to 19 hours (see section 4.4).

The Internet is seen as the most crucial factor influencing distance education today. According to the findings of the Pew Internet and American Life Project,

Internet use is a staple of college students' educational experience.

They use the Internet to communicate with professors and

classmates, to do research, and to access library materials

(Khasseh, Moghaddam and Jowkar, 2009 referring to Jones et al, 2002). The Internet also makes it possible to deliver materials to the students much faster (Chifwepa, 2006 referring to Siaciwena, 1998). This shows that the Internet does play an important role in access to information by distance learners so this high usage, the researcher believes, is a positive thing. The researcher notes that the UNZA library does provide Internet access through its computer lab but that the wireless signal in the library needs strengthening in order to ensure wider access.

Higher percentage of distance learners using the Internet agrees with findings of Miyanda (2010), Ramasodi (2009) and Khasseh, Moghaddam and Jowkar (2009). The findings showed that 88 percent, 83 percent and 91 percent respectively indicated that they used the Internet to get information. Ritterbush (2014) adds weight to the importance of the Internet by stating that distance learners relied on the Internet and familiar search engines for research purposes.

Tapfumaneyi and Rupande (2013) however had different findings in that at Zimbabwe Open University an overwhelming 95 percent of distance learners rarely used the Internet for scholarly research and that 85 percent were unable to access electronic resources as they had limited access to computers and Internet.

For Chifwepa (2006), the findings were different in that 66 percent of distance learners had no access to the Internet, thus implying that this number could not use the Internet for academic purposes. For this study, on the other hand, the higher percentage of students using the Internet implies that the Internet could be used as a platform to avail library resources and services to distance learners. The UNZA library should therefore consider using the Internet as a means of providing wider access to distance learners, regardless of location.

5.2.4 Need for information literacy and ICT skills

Of equal importance is that in as much as learners indicated that they used ICTs mostly to search for and retrieve information from the Internet, are they information literate? That is to say, are they able to efficiently and effectively navigate the web to access, evaluate and use information to meet their various information needs and this in a timely manner? Ritterbush (2014) observes that there is often a misconception that distance learners already had library search skills and are thus able to evaluate information for use. This is an area of concern for this

researcher and thus calls for further investigation into this by the UNZA library as it tries to re-organise its support to distance learners. This concern is further heightened in that Chifwepa (2006) reported that distance learners had low level skills in on-line searching. The researcher is worried in that among the reasons advanced by the 73 percent of respondents who indicated that they had been unable to get required information, lack of skills to search online featured prominently (see section 4.3).

With regards to how respondents learnt to use the various ICTs they were using, the majority of them indicated that they had either trained themselves or acquired their knowledge through friends. This seems to indicate that the library had no formal programme to impart ICT skills to distance learners. This is contrary to Brooke (2011); Standards for distance learning library services (ACRL, 2008); and Hermosa and Anday (2008) who all argue that imparting ICT skills to distance learners is one of the vital services the library should offer. This is so because ICT forms the cornerstone of access to library resources and services in distance learning. It is therefore imperative that the UNZA library comes up with ICT skills training programmes. This is also evident in the fact that 85 percent of the respondents (see section 4.3) indicated that it would be desirable that the library organised trainings to improve ICT skills.

In stressing the need for information literacy and ICT skills training, Corbett and Brown (2015) state that many distance learners, especially the older learner, are unfamiliar with using online resources and their associated technologies and also lack the skills of how to evaluate these resources for use. Corbett and Brown go on to add that libraries need to provide instruction on not only how to search for and use library resources but also on how to use the various technologies. Equally important is to provide guidance on how to determine which resources are most valid and reliable for use for the chosen topic. For instance the popular website Wikipedia is an example of an unreliable resource due to the ability of anyone being able to contribute information to it (Corbett and Brown, 2015).

To strengthen this argument for formal training, this study established that respondents that trained themselves were more confident in ICT skills rating as compared to those that acquired their skills through friends as those that trained themselves rated their ICT skills higher (see tables 17 and 18). This seems to imply that in order to bring ICT skill levels to a position where

distance learners are more comfortable in their use of ICTs, the library needs to intervene by introducing formal ICT training programmes. All things being equal, this would hopefully give each learner an equal chance of accessing and using ICT-enabled resources and services.

Kakana (2008) had similar findings in that distance learners, as well as librarians indicated that ICT trainings should be offered to the distance learner. The challenge would, however, be in finding time to provide such training with the lack of face-to-face contact time (Brooke, 2011; Tapfumaneyi and Rupande, 2013). UNZA library would likely face a similar challenge. One way out of this would be to imbed such training in the UNZA IDE course curriculum so that specific time is provided for ICT and information literacy.

Did the respondents' rate of their ICT skills therefore influence this desire to have training? Findings of this study were interesting in that regardless of how respondents rated their ICT competency, they all thought it would be a welcome idea for UNZA library to organise ICT training to improve distance learners ICT skills.

5.3 Policy on distance learning library support

It is clear from the findings that UNZA has no deliberately articulated policy on distance learning library services and that there is need for UNZA library, in consultation and collaboration with stakeholders, to come up with such a policy. Stakeholders would be management, IDE, faculty and Centre for ICT, including distance learners and any other as may be identified by IDE and UNZA library.

According to ACRL (2008) standards and Lebowitz (1997), in developing a policy, the following must be developed or included/taken into account: Institutional as well as the library's mission, goals and objectives; management policies; personnel; facilities, equipment and communication tools; copyright policies; library resources for distance learners; library services for distance learners; and documentation.

5.3.1 Mission, goals and objectives

Here the Institution states its mission, goals and objectives in order to among others, ensure that adequate library resources and services are available to all students and faculty regardless of

where located. These show commitment on the part of the institution towards the delivery of resources and services to distance learning.

The institution also commits itself in terms of time, funds, personnel, facilities and equipment. To also be considered are issues of sources of funding, who meets what cost and setting aside funding towards distance learning library services. It is important to note that as programmes and enrolments grow, so should funding expand (ACRL, 2008).

5.3.2 Management policies

The library articulates its mission, goals and objectives for distance learning library services. In addition, a written profile of the distance learner in terms of needs, ICT and information literacy is made. Further, a profile of existing library services is made. In addition collections and services are described, cooperative/collaborative and resource sharing agreements and partnerships are defined, including assigning roles and responsibilities of the various entities (Lebowitz, 1997). It is important that there is collaboration among IDE, course developers, lectures and the library so that among others, information literacy programs can be integrated in the courses as well as to allow for the appropriate library resources and services to be planned for and integrated. In this vein, it would be prudent that an information kit is prepared for the distance learner describing library information resources and services available either electronically or physically, with instructions on how to access the same.

Additionally, collection development and acquisition policies should be put in line with distance learning needs. Who will be responsible for funding, collection building, facilities and equipment, user education, training and so forth – all these need to be clearly stated.

5.3.3 Personnel

In this section, a commitment to library staff, key administrative and support staff is made indicating roles and responsibilities, appropriate numbers and qualifications in order to meet goals and objectives of library services to the distance learning programmes.

It should be noted that even with technological developments rendering location less relevant than in the past, distance learning students and faculty still face distinct and different challenges involving library access and information delivery. Special funding arrangements, specialised

staffing, proactive planning, and promotion are necessary to deliver equivalent library services and to achieve equivalent results in teaching and learning, and generally to maintain quality in distance learning programs. Equitable distance learning library services are often more personalized than might be expected on campus, because students and faculty in distance learning programs seldom have direct access to a full range of library services and materials (ACRL, 2008).

5.3.4 Facilities, equipment and communication tools

The UNZA library needs to provide facilities, equipment and communication tools that are sufficient in size, number, scope and accessibility to ensure timely access to all students, as Cooper (2000) advocates. This can be achieved through (though not exhaustively), space, consultations, reserve collections, electronic transmission of information, online services and computerized database searching. Cooper (2000) adds that interlibrary loan services and setting up branch/satellite libraries were important ways through which timely access by all distance learners could be achieved.

The library should plan for reading, consulting and office space, where to house print materials, technologies to access electronic resources such as computers, Internet, websites, secure remote connection to electronic resources, chairs, desks and so forth that would ensure access to library services and resources.

5.3.5 Copyright policies

Given the challenges most libraries face in terms of outdated collections, insufficient physical resources as well as limited physical space, most libraries are moving towards digitising their resources. This though comes with the challenge of copyright issues, to what extent does the library digitise without infringing on copyright? Users and librarians need to understand issues of copyright. Therefore UNZA could do well to look at what other universities have done on this issue. For instance, the Henry G. Bennett Library, Southeastern Oklahoma State University, have developed a Copyright and Scholarly Communication website where information pertaining to copyright issues has been put.

5.3.6 Library resources for distance learners

With regard to library resources, libraries should offer distance learning students' access to resources which is equivalent to those available to on-campus students and that resources must be convenient and in sufficient quantities and qualities for all students (ACRL, 2008). Ultimately, the UNZA library should plan for and make accessible resources that will meet learners' needs for all assignments, complement curriculum, meet teaching and research needs of faculty, and ensure access to resources regardless of where one is located. Therefore, the UNZA library should state how it plans to meet these goals. For instance, how will it ensure remote access to its resources?

5.3.7 Library services for distance learners

In providing library services to distance learners, academic libraries face one challenge – distance (Johnson, 2002). How will services be provided that will span across space and time? The library should indicate the services to be made available to distance learning. Results obtained from the questionnaire and interviews indicate that for UNZA, services should include, but not limited to, information literacy; ICT literacy; tutorials on how to use the library; assistance and training on how to access both physical and electronic resources; consultation and reference services, technology to allow remote access; e-resources such as journals, databases, institutional repository, e-books; and interlibrary loans. Some of these could be offered through a portal on the UNZA Library webpage for distance learners, for as Linden (2000) puts it, “the library’s website is the library”.

5.3.8 Documentation

The policy should also stipulate the documentation to be made available to technical staff as well as users. Such documentation may include user guides and other library instructional materials, mission, goals and objectives, including policies, regulations and procedures pertaining to library use.

5.4 Extent of ICT use in provision of resources and services

The library has the primary responsibility for making its resources and services available to its users regardless of physical location. It is important that distance learners are able to access institutional library resources in a timely and convenient way (Heap, 2001 in Brooke 2011).

Therefore, the library should identify, develop, coordinate, implement, and assess these resources and services (ACRL, 2008) and make them available whenever and wherever needed.

5.4.1 Provision of resources and services

Pertaining to the provision of library information resources and services, no distinction was made between distance learners and on-campus students. All e-resources, except the institutional repository, could only be accessed within the UNZA network, with most students having access only during residential phase of their study and no particular person, desk, dedicated library web page or set of services specifically for distance learners existed. Physical resources were only provided when the learner physically visited the library as opposed to posting books or photocopied resources, or scanning and emailing resources. Similarly, library services were availed through face-to-face interactions. Given the above, it would be pertinent to say that library support to distance learners is mainly available during the 2 weeks of the residential phase of the programme while for the rest of the time this support is seemingly low to non-existent.

Distance learners were made aware of information resources and services available to them and indeed any other relevant information through the UNZA library web pages and orientation programmes. These methods were however viewed as ineffective in that not all students in the distance learning programme attended orientation. A contrary view was that these methods had been effective, the only drawback being inability to access the UNZA web pages by some students in far flung areas. If this is the case, facilities could be provided in the IDE regional centres where learners could access the UNZA library website. Nonetheless, when it came to resources results seem to indicate that learners are mainly aware of print resources (as indicated by 63 percent) as opposed to e-resources where only 36 percent showed awareness while 64 percent were not aware of the existence of e-resources.

User education in library use was provided through face-to-face training and during orientation while information literacy was provided through face-to-face training and printed guides. However, learners had little or no time to attend the training because of busy schedule during residential period. Tapfumaneyi and Rupande (2013); and Brooke (2011) concur with this assertion stating that face-to-face time is limited and students perceive such trainings that the

library may offer as having no immediate benefit. On the other hand, information enquiry services were only available when the learner physically visited the library.

Given the above, library staff were not satisfied with the level of support to distance learners stating that the fact that most learning was done when distance learners were away from campus clearly put them at a disadvantage as they had no access to UNZA library information resources and services.

Similarly, Kakana (2008) in his study to evaluate UNZA library's support to distance learners indicated that both staff and students were dissatisfied with the level of support to this group of users. This dissatisfaction was mainly due to lack of relevant library materials as indicated by 54 percent (25 out of 46) members of staff and 30 percent of the students. Further, lack of access to library materials was also advanced as another reason for dissatisfaction as indicated by 15 percent of staff members and 20 percent of students. This study also revealed similar trends in that 52 percent (35 out of 67) indicated that they did not have access to UNZA library information resources and services. The researcher observes that this puts the distance learner at a clear disadvantage. This is so because access to adequate library information resources and services is said to be the key to success of distance learners (Sampson, 2003; Haider, 2004) and it leads to an educational experience that can compare favourably with that of on-campus students (ACRL, 2008). This therefore calls for quick intervention by UNZA management, UNZA library and IDE to redress the situation.

Most of the above findings are at variance with literature in that firstly as articulated by ACRL (2008) in the Standards for distance learning library services, it is the responsibility of the library to make its resources and services available to all users, regardless of physical location. The Standards go on to emphasise that members of the distance learning community are entitled to library services and resources equivalent to those provided for students and faculty in traditional campus settings. One way of making resources available is through postal loans and that costs (which are a concern for UNZA library the researcher believes), could be managed through several ways.

Research, as indicated by Brooke (2011), shows that costs can be managed by making users pay for either return postage or pay for both ways. Whether this is something that would be feasible

for UNZA is yet to be determined. Other hindrances with the postal service such as the time it takes to deliver an item to ensuring that that item actually got to the intended recipient must be taken into serious consideration before deciding to use the postal service. Concerns on this were raised in earlier studies by Mwachalimba (as reported by Kakana, 2008) that inefficiencies of the postal service lead to loss of lecture materials, library books and assignments to the distance learner at UNZA.

Other ways of getting resources to the distance learner include making e-resources such as e-books, e-journals, databases, etc. remotely available, as well as scanning and emailing articles and book chapters, but these also come with their own problems. Kramer (2010) states that by providing links to Open Access material in virtual learning environments (VLEs), librarians can better support distance learners.

Important challenges that the UNZA library would likely face include the challenge of availing e-resources remotely while ensuring that only bona-fide UNZA students and staff have access to these resources and services, how to deal with licensed e-resources that do not allow remote access as well as how to deal with copyright issues.

Secondly, library resources, information literacy, user education and other services must be provided in formats and ways accessible to the majority of distance learners. Issues of load-shedding, access to requisite technologies such as computers and other technology also come into play here and calls for studies to know characteristics of distance learners, their needs and skills, facilities and equipment as well as technology that is available before coming up with ways of availing resources and trainings to the distance learner. Collaboration with faculty and IDE is equally important.

5.4.2 Collaboration/cooperation/interlibrary loan schemes

Another means of providing access to materials in the students' locality is by securing for them access to other academic libraries. Cooper (2000) proposes that libraries should seek cooperative agreements with libraries at the students' location to assist in providing library support. In this way, interlibrary loan services (ILS) could be used to access on-line library resources, for instance. Participation in reciprocal borrowing agreements with other libraries by home institutions enable distance learners to access relevant resources at a more convenient location

(Heap, 2001). Heap believes that what is important for a distance learner is not who provides the service, but its quality. Of paramount importance is having the needs of the learner met.

The researcher is aware of the existence of a consortium of libraries in Zambia – Zambia Libraries Consortium (ZALICO) among whose aims is to enhance access to library resources and services through sharing of resources while taking advantage of ICT to widen access. However, the researcher observes that ZALICO is seemingly not meeting its objective in that only 14 percent of the learners alluded to accessing library resources and services from other institutions. One of the librarians actually confirmed that the library had no official collaborative or cooperative agreements with other institutions to allow distance learners use their libraries. Therefore, there is need for the UNZA library to establish/revamp linkages with other institutions and more importantly for ZALICO to re-strategize so that distance learners could benefit from resources and services of member institutions.

5.4.3 Extent to which ICTs are being used

The findings seem to suggest that the extent of ICT use in the provision of support is minimal. The UNZA library has seemingly not taken advantage of the great potential of ICT, for instance using email to communicate with distance learners or to market its services. Nor has it taken advantage of the e-learning system Moodle (where tutorials, videos, resources and links to resources can be placed, or through which reference services can be offered using live chat). The UNZA library website does not have a dedicated web page for distance learners which contains links to library resources and services, tutorials on how to use the library and resources, how to access resources (both physical and print), and so forth.

Email can be effectively used for providing reference service as Slade (2000) notes that it has advantages of unrestricted geographic access, reduced costs as compared to phone or fax, provides a printed copy of reference transactions to assist with future inquiries; and avails the option to build a database of questions and answers. He further adds that the website can be a starting point which provides users with information required to locate resources and that various services can be offered through the website.

5.5 Challenges faced by distance learners and librarians

This section discusses the challenges faced by distance learners in accessing library resources and services. It also discusses challenges staff in the UNZA library face in trying to offer distance learning library services.

5.5.1 Challenges faced by distance learners in terms of library use

Prior to being asked about the challenges they faced, respondents were asked if it would be desirable to have a specific contact person/desk in the library dedicated to distance learners' queries/consultation. All but 3 out of the 67 respondents answered in the affirmative. Later on in this discussion, the study will show whether this overwhelming desire to establish a dedicated contact point was influenced by the challenges distance learners faced or other factors such as perception of staff attitude (helpfulness or unhelpfulness).

The study revealed that the greatest challenges distance learners faced in terms of library use were inability to consult a librarian remotely (62 percent), balancing study with other commitments (60 percent), lack of remote access to resources and services (58 percent) and a feeling of isolation (55 percent), in that order. For Brooke (2011), there were some similarities in the challenges, though the order of ranking the challenges was different. In Brooke's study the ranking was: balancing study with other commitments, a feeling of isolation, difficulty in finding quality information for assignments and inability to consult a librarian remotely.

a. Lack of remote consultation

Inability to consult a librarian when the respondent was not physically at UNZA was seen by the majority as presenting the greatest challenge in terms of library use. Those interviewed agreed with the students, stating that inability to have remote consultation was a barrier to effective library use. This is further consolidated in the findings that indicated that 53 percent believed the fact that staff support was not always available caused them difficulty in using the library. However, as indicated in literature, distance learners have similar information enquiries as on-campus students. Therefore inability to interact directly with the library must be addressed (Brooke, 2011; Ramasodi, 2009; ACRL, 2008). ICT can be used to address this challenge such as using e-mail, live chat in Moodle, Skype and the phone to provide remote consultation services.

b. Balancing studying with other commitments

Literature recognises that distance learners experience difficulties in fully benefiting from libraries because commitments can conflict with each other. Such conflicts may be balancing studies on one hand with work and family, on the other hand. How does one strike a balance? This calls for discipline, which admittedly is not easy, on the part of distance learners. This can be seen by the 60 percent that admitted that balancing study with family and/or work was quite challenging. This study further went on to establish that married respondents were more likely to face the challenge of balancing study with family/work commitments when it came to library use (table 24). Similarly, the librarians in Brooke's study agreed that conflicts can present a challenge to distance learners. Brooke (2011) goes on to report a sentiment by one distance learner saying,

If you have family and work responsibilities and sort of trying to study, it can get really stressful.

This therefore makes the provision of convenient support methods essential (Whitehair, 2010 as reported by Brooke, 2011).

Contrary to the views of students, the two librarians who were asked on this were of the opinion that this should not prove challenging in terms of library use. The rationale here was once you make the commitment to study, then you need to assign time specifically for that activity.

It is important that in as much as UNZA librarians do not see this as a challenge, for distance learners, this is a real challenge and therefore librarians must recognise it as such. The fact that it was ranked second (by 60 percent) among the challenges distance learners faced should send a signal to librarians. The library should therefore come up with innovative ways of enabling access to library resources from anywhere, anytime – technology would greatly aid in this.

c. Lack of remote access

The majority of respondents recognized this as being the third major challenge as distance students, particularly those living outside Lusaka, could only access these resources and services during residential school. Once they left campus, they had no more access. Consequently, learners were left with no option than to use resources other than those from the UNZA library. This is reflected in the response to the question of where learners who did not have access to UNZA library (52 percent) accessed information from. The majority of these students (43)

accessed information through the Internet at their workplaces. This meant this group did not get access and support equivalent to their on-campus counterparts. The respondent from administration further added that this puts them at a great disadvantage as they have to heavily rely on lecture notes. To compound this, the library had no official collaborative or cooperative agreements with other institutions to allow distance learners use their libraries. ICT enabled services and resources were either inaccessible or non-existent for the distance learner, the respondent further added.

Similarly when distance learners at Shiraz University (Iran) were asked to prioritise five library services from a list of 16, “access to the on-campus libraries of Shiraz University” topped the list with “better access to academic libraries of the country for distance students” coming third (Khasseh, Moghaddam and Jowkar, 2009). Likewise Tapfumaneyi and Rupande (2013) in their study to highlight challenges of establishing a digital library at Zimbabwe Open University revealed that 85 percent of distance learners did not have access to the library’s e-resources. Ramasodi (2009) had similar findings in challenges distance learners at UNISA faced. Results indicated that some students did not have access to library resources due to distance; lack of computer facilities or Internet connectivity; inadequate ICT skills; low bandwidth and poor information technology infrastructure.

The above findings seem to imply that most distance learners only had access to institutional information resources [and services] during the time they attended residential school.

d. Feeling of isolation

A feeling of isolation arises from an inability to access information enquiry services provided within the physical library. Isolation was recognized by librarians at Sheffield Hallam University libraries as being one of the main challenges distance learners face (Brooke, 2011). This feeling of isolation can however be mitigated by offering e-reference services, which can take the place of the physical enquiry desk to the distance learner (Brooke, 2011 citing Kramer, 2010).

Likewise, it appears that feeling isolated, in relation to library use, is a challenge for the distance learner at UNZA in that 55 percent indicated that this did present a challenge. On the other hand, one librarian thought this did not present a challenge.

As earlier indicated, all but 3 respondents indicated a desire to have a dedicated contact point to deal with distance learners queries/consultation set up. This study sought to establish reasons for this desire.

Miyanda (2010) and Akakandelwa (2000) established that students perceived library staff as unhelpful and this proved a challenge, among others, of why students could not exploit library resources. The researcher therefore felt this could be a starting point in trying to explain why students felt having a dedicated contact point for distance learners was necessary. The researcher consequently checked if the fact that respondents perceived UNZA staff as not always being helpful (as indicated by 45 respondents) may have influenced their desire to have a dedicated contact/desk established (refer to table 25). Findings were that perception of staff attitude (helpfulness or unhelpfulness) did not in fact influence this desire. Those that indicated staff as not always helpful had 44 out of 45 indicating a desire for the dedicated contact point but equally those that perceived staff as always helpful (11 out of 13) expressed a similar desire to have a dedicated contact point. Therefore, staff attitude did not explain the reason for this desire.

Thereafter, the challenges of a feeling of isolation, lack of remote access to resources/services and inability to consult a librarian remotely were further analysed to determine if each of these could have influenced the desire to establish a dedicated contact point. The study established that all three challenges mentioned above may have each influenced the respondents' desire to have a dedicated contact point established (see table 26 in findings chapter). These findings seemingly suggest that the above mentioned challenges should be treated as important factors by the UNZA library as it seeks to find ways to improve access to library resources and services for the distance learner.

5.5.2 Challenges/barriers in supporting needs of distance learners

The study revealed that the main challenges or barriers in supporting needs of distance learners were: distance learners' lack of knowledge in using the library; inability to provide remote access to resources and services; lack of deliberate information literacy courses for distance learners; not having a dedicated collection/provincial resources centres for distance learners, lack of cooperation agreements with other institutions; and inadequate time for learners to use the library.

On the other hand, students see failure to at times download e-resources and the fact that at times staff support was not available (ranked third and fourth respectively) as being barriers to effective library use. Students seemed to agree with library staff that inability to access resources remotely was indeed a major problem, thus ranking it first in the list. Another area of commonality with library staff was being unable to use the library at a time that was convenient, thus ending up not using the library at all.

Corbett and Brown (2015) also cite the primary challenge in supporting distance learners as being able to provide library services and resources that equal those that are available to on-campus students.

With regards to distance learners' lack of knowledge in using the library, several factors could have contributed to this. Firstly, most distance learners do not have time to attend orientation programmes/training that aim at among others equipping them with skills to use the library nor do they perceive such programmes as priority. Several researchers have alluded to this indicating that learners may lack interest of participating in library use instruction citing limited awareness of the value of the library to their studies as well as not seeing this as a priority given the time constraints of residential school (Tapfumaneyi and Rupande, 2013; Brooke 2011; Ramasodi, 2009; Chifwepa, 2006). They need user education that fits in with their busy lives, by being widely accessible (Barnhart & Stanfield, 2011) and provided at their point of need. This implies the use of technology to make these programmes not only widely accessible but also available whenever it is convenient for the learner to access. Thus use of technology to support user education was seen by librarians as a significant opportunity to improve library support to distance learners.

The other factor that may contribute to lack of knowledge in using the library could be the lack of deliberate information literacy courses for distance learners. Information literacy is the ability of an individual to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information (ACRL, 2008). Without information literacy skills, learners would be unable to effectively use library resources (both print and electronic), and would thus be entirely dependent on librarians for resources to meet their information needs. Findings of a survey conducted by Hines (2006) showed that the distance education faculty of the University of Montana believed that offering courses on library skills was the best way to equip distance learners with skills in inquiry and independent thinking. This then enabled them

use the library. This researcher thus calls for quick intervention from the UNZA library to address this lack of knowledge. It would be prudent for the library to collaborate with IDE and faculty on the best way of providing information literacy training, given the limited time learners have for face-to-face training. The researcher is of the opinion that web based tutorials would be the best in light of the nature of distance learning.

Availing remote access to library resources, librarians believed, would significantly improve library support to distance learners. This notion is supported by students who indicated that among the many challenges they faced, lack of remote access was one of them, as indicated by 58 percent. Hence their call to enable remote access stating,

Distance learners need them [resources].

We cannot all come to Lusaka [to physically access resources at the UNZA library].

Being able to access resources remotely was seen as important to the distance learner in that this learner is likely working, has family commitments and is located at a distance far from the library (Tapfumaneyi and Rupande, 2013; Ramasodi, 2009; Halsne & Gatta, 2002). This makes it impossible/extremely challenging to physically access resources at the library. Therefore the learner needs to access resources wherever and whenever needed (24/7 access). This lack of remote access has been seen to be one of the reasons distance learners desired the establishment of a dedicated contact point in the library. Through this, distance learners could channel their information request and ultimately get access to the resource required (for instance by being emailed a photocopied article).

Lack of a dedicated collection for distance learners was another challenge librarians cited that hampered their provision of support to distance learners. This could however be, to some extent, mitigated by opening up provincial resource centres. This further had the advantage of ensuring that all learners had access to relevant resources closer to home. Tapfumaneyi and Rupande (2013) also indicated that having regional libraries enhances access to the institutional collections. Similarly, distance learners at UNZA wished the library would open up branch libraries in IDE provincial centres so that they could have access to resources and services closer to home. This would help them in completing their assignments on time and without much inconvenience.

Literature has shown the advantages of entering into cooperative agreements in terms of resource sharing and reciprocal borrowing with other institutions (ACRL, 2011; Kakana, 2008; Cooper, 2001). The most important of these advantages being greater cost-effectiveness and enabling libraries to significantly expand access to resources by the distance learner. Library cooperation may not only be limited to sharing information resources but also other resources and services such as computer facilities, space and reference services. It is therefore imperative that UNZA library engages in such cooperative agreements with colleges, universities, Ministry of Education (for use of resource centres), public libraries and other strategic partners in order to more effectively serve the distance learner.

5.5.3 Overcoming challenges

The use of ICT was seen by most librarians as a means of overcoming/reducing the above challenges. Ways cited included the use of email to send information, answering queries online, digitising key collections and making them available online and creating online tutorials on how to use the library that learners could access repeatedly if need be. Email and a dedicated website for distance learners were actually chosen by the majority of learners as the most preferred ways for the UNZA library to provide them with information. Therefore, these two methods should be considered when designing services for distance learners. However, as discussed earlier, digitising material has the challenge of intellectual property and copyright law. Consequently, librarians need to be kept abreast of copyright issues pertaining to individual resources as well as inform learners about such issues.

Hensley and Miller (2010) similarly reported that when students were asked to rank their preferred methods of seeking help from the library, 80 percent of distance learners surveyed listed email as their first choice for communication with the library. Phone and chat/IM were both preferred by 48 percent of students.

Other ways identified from literature are establishing computer laboratories, giving user ids and passwords to enable them access e-resources outside UNZA network, with using a proxy server to authenticate such access as well as setting up resource centres in strategic areas (Tapfumaneyi and Rupande, 2013; Gopakumar and Baradol, 2009). This research further identified training staff in technology use as key to service delivery. This is necessary because the bulk of library support to distance learners requires the use of technology. As earlier indicated, the UNZA

library does have an established computer lab with Internet connectivity and wireless connectivity is available.

Students, librarians and literature are in agreement that in order to better serve the needs of distance learners, a dedicated department/desk/person needs to be established that will be responsible for all aspects of serving the needs of distance learners. Tapfumaneyi and Rupande, 2013; Brooke, 2011; Ramasodi, 2009; Anday, 2008; Yang, 2005; Gadd, 2002; and Cooper, 2000 are some of the authors that stress the need of having someone coordinate the provision of resources and services to distance learners. That these services and resources should be accessible from a single point like a web portal, desk or department specifically focused to distance learners' needs. Students will thus be more comfortable knowing that there is a single point for them to go in search of information, service or consultation.

5.6 Suggestions to improve distance learning library services

When students were asked to state what they would want the UNZA library to do in order to improve their learning experience at UNZA, the following were their responses:

- a. that library staff would be more helpful with requests for information
- b. that having a desk dedicated to distance learners' queries and requirements would be quite helpful
- c. that programmes to provide them with skills on how to locate and retrieve information should be more frequent
- d. extending borrowing time to 19 hours
- e. creating libraries in distance education centres
- f. scaling up user education
- g. that their learning experience would be greatly improved if they had access to resources even when they were outside the UNZA network

Similarly in a survey of distance students at Illinois University students were asked what library services they perceived important (Hensley and Miller, 2010). The ability to access the library journals and collection despite not being an on-campus student was of major importance to distance students. They further added that without remote access to the library resources, it would have been very hard to complete their research projects effectively. Another added that

even though electronics had made it much easier to access information, but there was still no substitute for a knowing reference librarian. Another student asked for “a designated librarian for distance learners - someone who could, over time, become very familiar with the needs of distance learners.”

For staff areas of improvement were in marketing library services to students and faculty, creating a dedicated website with links to and information on library resources and services, a written down policy on distance library services to guide operations and having a dedicated desk for distance learning services. Further,

*a vibrant ICT facility with resources available everywhere –
UNZA website, Moodle with learning sites and links to library
collection*

was suggested. It can be seen that the suggestions from learners and staff are quite similar.

Given the above suggestions plus findings from literature, the researcher further went on to produce a draft model of distance learning library resources and services.

5.7 ICT Model of distance learning library resources and services

Literature recognises three common models for distance learning library services, namely: (i) dedicated department/single contact model in which a person/department is in charge of services and proactively develops services/resources in anticipation of needs; (ii) integrated/decentralized model in which no one department/person coordinates the needs of distance learners. Services are divided across departments and offered as an extension to the “normal” ones; (iii) the branch campus model where mini libraries maintain appropriate print material which is sourced from the main library. For UNZA, findings of the study suggest that both learners and staff prefer the dedicated department/single contact model.

5.7.1 Pre-requisites to model development

As indicated in the findings, there are pre-requisites to the development of library support for distance learning. These include institutional commitment, understanding the institutional as well as student environment and guidelines for services (ACRL, 2008; Mauyra and Kumar, 2008; Lebowitz, 1997). Once these are in place, the UNZA library can begin to develop its own set of distance learning library services.

1. Institutional Commitment

As indicated earlier, an institution's commitment is an important step in ensuring effective library support to the distance learning community. This commitment should be in terms of funding, personnel and other resources needed for the provision of equivalent library resources and services to distance learners. It should also include a commitment to supporting specialized library services and direct user access to library personnel. This commitment must not be implied, but articulated in terms of institutional missions, goals, objectives and policies.

2. Institutional environment

The level at which library services are developed is determined by the programmes and courses offered, number of students enrolled in each programme, and projections for future programme/course development. Issues to do with policies, personnel and other resources as well as projections for increase in student numbers are planned for and developed here. It is thus important for UNZA in that as it plans for library services for distance learners, these aspects are taken into account.

3. Student environment

UNZA library needs to understand the potential student environment. Such aspects like location of student, whether or not the student can gain access to library resources, instruction in the use of library resources and methods of communication between the library and learners need to be considered.

a. Location of student

Based on previous and potential location of distance learners, the library needs to know if there are libraries within commuting distance from the learner and if these libraries have adequate resources to support the needs of the learner. If not, the library should determine how learners' needs may be met.

b. Access to library resources and mode of delivery

Such issues as availability of electronic access to UNZA library catalogue and resources and possibility of access to local library collections need to be considered. Would establishment of formal agreements with such libraries be helpful, if not, how will access to resources be

guaranteed? Would it be possible to scan or photocopy needed resources, what about issues of copyright?

c. Instruction in use of library resources

These resources include print and electronic resources available at UNZA as well as those accessible through local libraries. The best mode of providing training needs to be determined.

d. Communication

By what means will UNZA library communicate with distance learners and vice-versa. The methods adopted need to be available to the majority of students. This study has determined that email, dedicated website for distance learners and UNZA library web site would be ideal.

4. Standards for services

The UNZA library does not have policy guidelines for library services to distance learners. The researcher is also not aware of the existence of local guidelines for distance learning library services therefore depended entirely on international ones. These are standards for distance learning library services (ACRL, 2008) and standards for libraries in higher education (ACRL, 2011). These guidelines do not only outline the basic services that should be included in distance learning library services, but also include information on financial responsibilities, personnel, library education, management, facilities and equipment, resources, services and documentation. Based on these guidelines, the UNZA library can develop its own set of guidelines and hopefully, national as well as regional guidelines can evolve from these guidelines.

5.7.2 Development of library resources and services

In developing library resources and services for distance learners, all stakeholders need to be involved as each of them has a role to play. These stakeholders include the UNZA library, management, IDE, lecturers and course developers. Development of adequate library support depends on careful planning and discussed below are the key activities that take place (adapted from Lebowitz, 1997 and Sampson, 2003).

Projections of future expansion or development of distance programmes should be done by UNZA management and IDE staff. These projections include anticipated increase in enrolment

numbers. This aspect of planning is important because future expansion will demand an expansion in support as well.

In conjunction with IDE and the UNZA library, management should also plan for funding to support library services to distance learners. This funding will support such activities as policy development, personnel training and development, collection building, facilities and equipment management plus any other issues pertinent to the funding of support to distance learning library services. In short, it should be sufficient to cover personnel, the type and number of services provided to the distance learning community and to cover innovative approaches to meeting needs (ACRL, 2008).

The UNZA library would need information on all the current programmes and courses, with numbers of distance learners for each. Also required would be required and recommended readings for each course. Lecturers, IDE and course developers are the best source of information. Armed with this information, the library can then plan how it would develop information resources based on the required and recommended readings, while adding any supplemental resources deemed necessary. This will ultimately culminate into an e-reserve collection, similar to the short loan collection in its functionality.

The above information will make it possible for the library to develop appropriate library resources and services to meet the needs of distance learners (see figure 6 below).

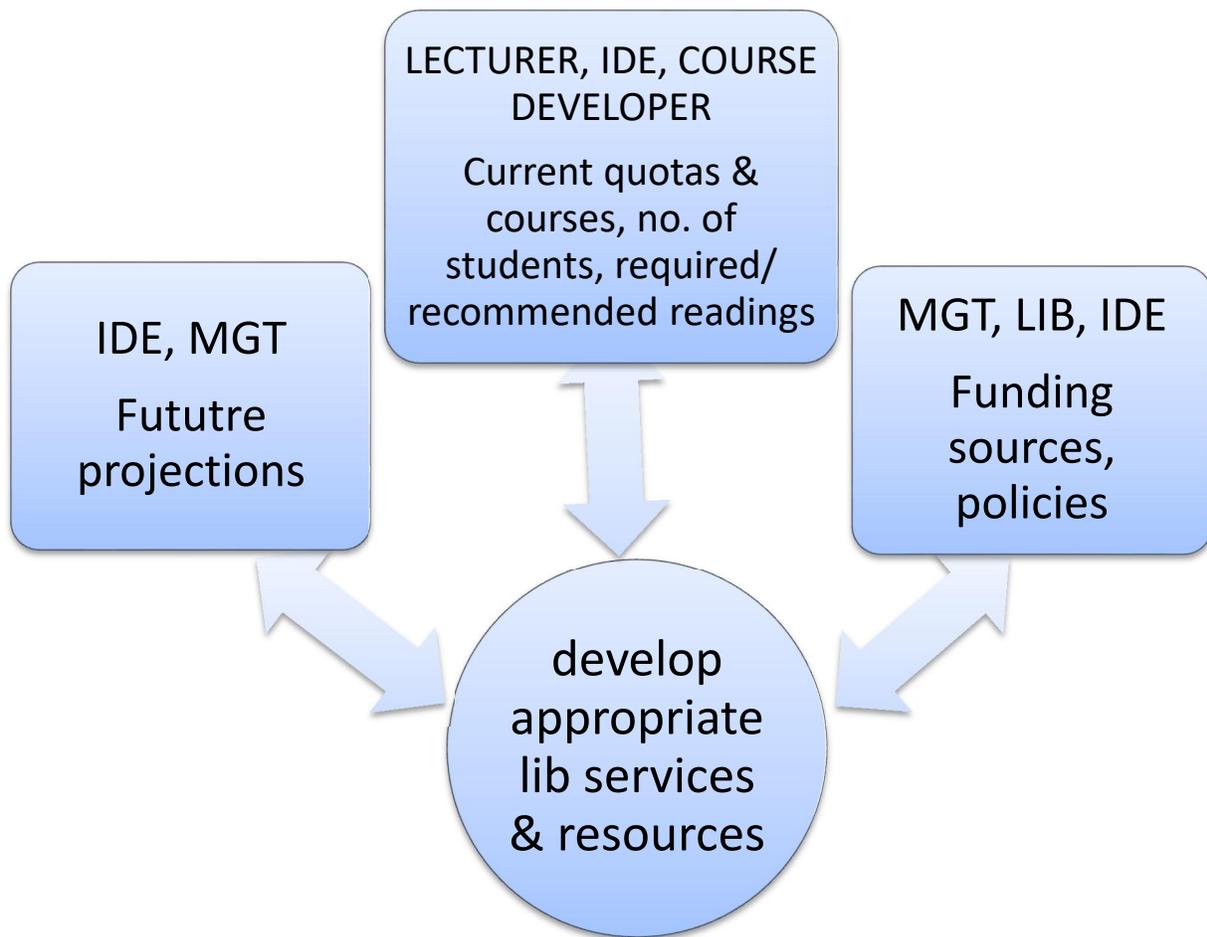


Figure 6: Development of distance library services & resources

5.7.3 Service model

Based on findings from both questionnaires and interviews, with backing from literature, the best service model for UNZA was considered to be the ‘single contact point’ also ‘known as the dedicated contact’ model. With this model, one or more members of library staff with responsibility for supporting distance learners will be a vital prerequisite for the introduction/enhancement of ICT services. A helpdesk service, allowing students to make requests and enquiries, is needed for this model. These member/members of staff will be responsible for ensuring that distance learners have access to all services and resources available to them. An important benefit of this model is that the student, already isolated by distance, has additional connection with the institution through the library (Lebowitz, 1997).

The single contact point model is combined with the branch model in which a branch library acts as a mini library that receives support from the main library. The UNZA main library will adopt the single contact point library and in each provincial IDE centre, branch libraries will be set up. This will ensure that library services and resources are brought closer to where the distance learners reside. With this model, it is hoped that access to UNZA library resources and services will be widened. The model is depicted in figure 7 below.

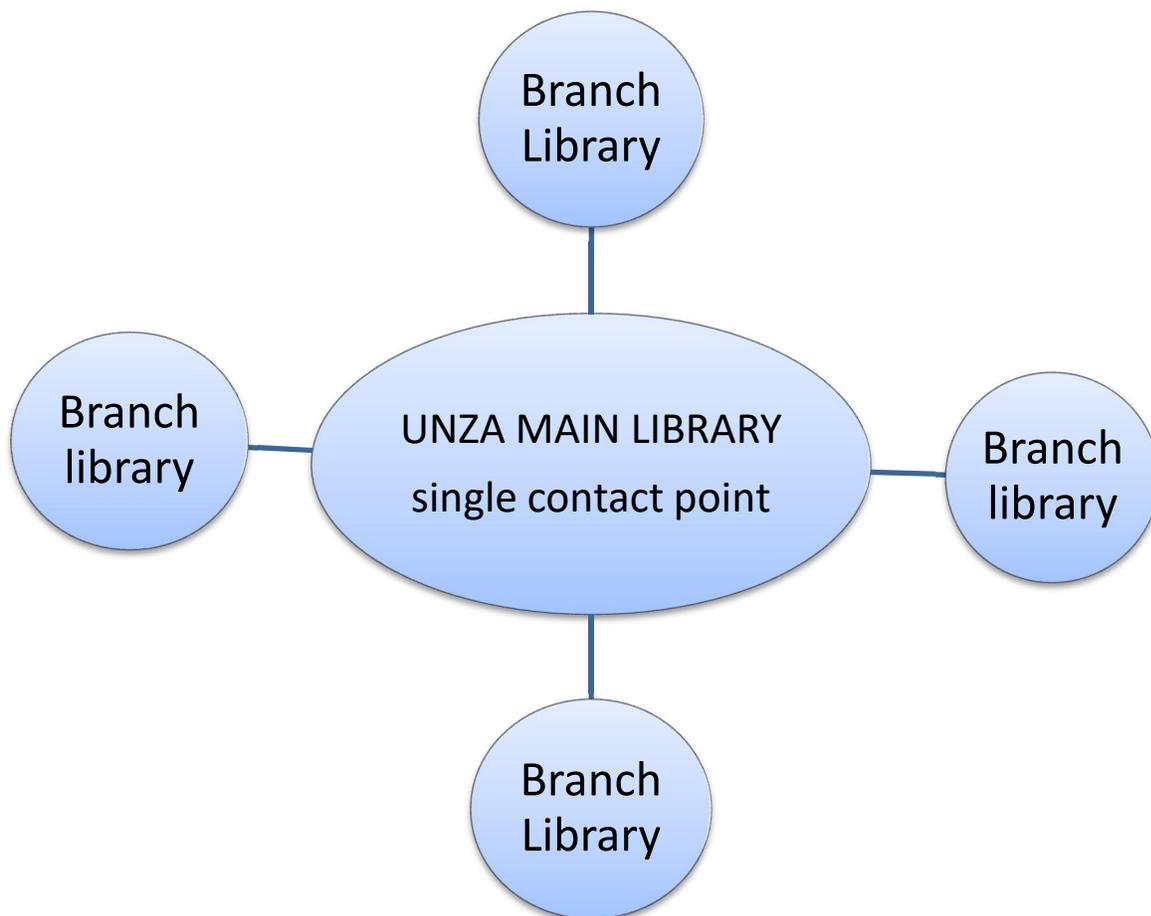


Figure 7: Service model

5.7.4 Organisation of services and resources

It is important that distance learners are able to access an institution's library resources in a timely and convenient way (Heap, 2001). Therefore, the UNZA library needs to provide its

services and resources in a way that allows for timely and convenient access. As has been indicated in this study, distance learners are characterized as being busy people who are mainly adults, are balancing studying with family and work commitments and are geographically diverse. That is to say, a significant number of them reside in locations that are not in easy commuting distance to the UNZA library. This leaves the use of ICT as the most effective way of providing resources and services to this group of library users (Brooke, 2011). ICT ensures wider access to the web, library databases, e-journals, e-books and other e-resources, search services, email, live chat and tutorials, to name but a few. Figure 8 below depicts how services and resources for the distance learner at UNZA are likely to be organised.

The findings of this study suggested that a dedicated webpage for distance learning library services be developed and this will act as a one stop shop or gateway/portal to library resources and services. As Linden (2000) puts it, the library's website is the "library". Since physical access to the UNZA library is minimal, the library website can serve as a gateway to resources and services.

Figure 8 below shows some of the typical activities the person/unit involved in the provision of library resources and services undertake. This list is by no means exhaustive or static, activities may be removed or added but the researcher recommends the following as a starting point:

5.7.4.1 User education

Information literacy, ICT literacy and instruction in general library use should be provided. Moodle, YouTube and the distance learning webpage can be used as platforms for these tutorials. Learners should be able to download these tutorials.

5.4.7.2 Referencing

Technologies such as email, chat in Moodle and phones could be used to provide e-reference services to distance learners. These should complement face-to-face referencing and are important in cases where physical contact is not a possibility.

5.4.7.3 General queries

The same technologies used in reference services apply here though issues dealt with here mostly require immediate responses. Queries may be about opening hours, where can I find ..., and so forth.

5.4.7.4 Resources and services

The librarian or team plans for and organizes resources and ensures they are accessible remotely. Enabling remote access to resources and services can be done by using open source tools such as EZproxy. Internet connectivity is required in order to gain access to resources and services. Some kind of registration and a process of authentication will have to be done to ensure that only UNZA students and staff can access these resources and services.

5.4.7.5 Planning and policy formulation

The team in charge of distance learning support is involved in formulating plans and policy that lead to adequate library support to distance learning.

5.4.7.6 Link between library and learners

Service point team acts as link, gives information to students and in turn sends feedback to the library from students. These may be new services or resources students would want to have.

5.4.7.7 Collaboration

Collaborates with IDE and faculty in planning for and availing information resources for the various courses.

5.7.7.8 Link to resources

Ensures that links to resources on the distance learning website are not broke, invalid or missing. Helps learners find needed resources, and so forth.

5.7.7.9 Web content

Provides content for distance learning website such as links to new resources/information. The library website can also act as a service point to distance learners (Gopakumar and Baradol, 2009), providing users with key information to locate resources and links to services. It can include links and information to the following:

a. Web OPAC

This is an electronic version of the library's catalogue, except it is accessible remotely as well. It helps learners determine availability of an item. Links to other OPACs of institutions the library has cooperative agreements with can be included.

b. E-reference

A link to e-reference services can be provided on the website. E-reference services can be provided by phone, email, live chat and other such tools.

c. Link to e-resources

Such as e-journals, databases, institutional repository and open access resources. Other links could be to tutorials on library use, information literacy and ICT literacy.

d. E-reserves

This is a collection of digitised information like periodical articles, lecturer notes/articles, recommended and required readings, past exam papers, links to recommended websites, and so forth.

e. Online references

These may include encyclopaedia like encyclopaedia Britannica, Oxford dictionary, Encyclopaedia of Library and Information Science plus any other deemed necessary.

f. Knowledge portal

Can act as a knowledge portal with links to various relevant website such as 'how-to' guides.



Figure 8: Single contact point – activities

5.8 Conclusion

The research brought out the fact that library support to the distance learner at UNZA is low to non-existent and that immediate intervention is required to redress this situation. In planning for library support to distance learning, the diverse characteristics of distance learners, ICT skill

levels and information literacy levels all need to be taken into consideration. Overcoming challenges in both use of the library by students and the support to students is important. Suggestions in this research are a first step. Further, the researcher believes that the model suggested would be of tremendous value to the library as it improves support to the distance learner through the use of technology.

CHAPTER SIX

Conclusions and Recommendations

6.0 Overview

This chapter presents the conclusions and recommendations based on the findings of the study. It also presents the researcher's recommendations for future research.

6.1 Conclusions

In the analysis carried out throughout this study the numerous advantages of the application of the ICT in library and information services in distance education became clear. The application of ICT has changed what is common in general library and information services. The use of ICT has reduced the distance between library services and students. In order to spread quality distance education, there is need to promote and ensure access to library and information services to students and faculty and this is possible only through the exhaustive and proper use of ICT in library support.

The study has revealed that DLs do possess ICT skills required to access ICT enabled resources and services but the major drawback is that these resources and services are not accessible remotely. It has further been established that DLs may require user education in terms of information literacy, ICT literacy and general library use. Furthermore, a policy on distance learning library services and resources does not exist at UNZA. Additionally, the extent of ICT use in library support to the DL is low to almost non-existent.

Although the library understands the value of library use and access to information resources and services, and distance learners seemingly had positive perceptions towards the use of information resources (both physical and electronic), UNZA has no formal library services for these learners during their study. It could thus be inferred that UNZA has actually underrated this value when it came to the provision of support to distance learners. With the plans to expand programs and increase enrolments to UNZA through ODL (as articulated in the 2013 – 2017 strategic plan), there is a need to provide guidelines and minimum standards for library support to the distance learners. Importantly, the library must understand the needs of distance learners and thereby be

in a better position to design resources and services that will be meet their needs, with ICT as a backbone to this support. It is hoped that the findings and recommendations of this study would be useful for future planning of library support to remote users.

6.2 Recommendations

In order for the UNZA library to adequately support and meet the needs of DLs and faculty, the following is what the researcher recommends to the UNZA library:

1. The UNZA library should adopt the proposed model of ICT library resources and services to the distance learner in order to effectively meet the information needs of the distance learner. This incorporates the setting up of satellite libraries/resource centres in the IDE provincial centres.
2. The Library should create a page on the library Web site with information on and links to distance learning online services and resources. This page would be a one-stop shop (or gateway) for library resources/services. The Library should include a link to this library gateway in Moodle. Information on how to access these resources and services should also be included, with links to tutorials on library use and information literacy. Alternatively, it should create a distance learning library web page and include a link to this page on the library web site. In this way, access to library resources and services would be available at multiple points, thereby increasing access to these resources and services.
3. Links to Open Access material should be placed in Moodle. Further, use of Moodle announcements, directed to faculty, learners and IDE, can be employed to market library collections and services.
4. UNZA library should collaborate with faculty and IDE in development of their unique course syllabi, emphasising the role of library resources for distance learners in customized pages for the specific classes that can be used as library gateways to resources and services.
5. The UNZA library should establish and where exist strengthen cooperative linkages with other tertiary institution libraries to enable students to access library services at Universities

and colleges near their places of residence. In this vein, the Zambia Library Consortium (ZALICO) should play a more active role in ensuring that members to the consortium open up their resources (both print and electronic) as well as services to students from member institutions. This will go a long way in improving access to library information resources and services to the distance learner.

6. Furthermore, the UNZA library should advocate that the Library and Information Association of Zambia (LIAZ) comes up with national “Best Practices” which are backed by the power of revoking or withholding accreditation. These Best Practices should act as a benchmark for library support to the distance learner and as such institutions should be able to evaluate their services against this minimum standard. The essential/minimum library support to distance learners to include in the Best Practices would be:
 - a. Library resources appropriate to the program, including, reference (e-reference inclusive) and research assistance;
 - b. Remote access to data bases, online journals and full-text resources;
 - c. E-document delivery services;
 - d. Library use, ICT and information literacy instruction; and
 - e. Institutional agreements with local libraries.

6.3 Recommendations for future research

Further research using focus group discussions in order to get a better understanding of needs of distance learners is needed and also to hear from them what their priorities, problems and requirements in terms of information resources and services are. This, the researcher believes, will lead to the provision of resources and services that will better meet the needs of the distance learner.

Carrying out a comparative study with other universities in Africa offering distance learning, especially in the Southern African region, with a view of learning how they provide library services, issues, challenges faced plus opportunities. This would be in order to establish best practices when it came to library support to distance learning. This would hopefully inform the UNZA library on how to better serve the needs of DLs.

References

- Adeyemi, A. (2004). *Research and teaching: beyond the divide*. London: Palgrave.
- Aina, L.O. (2002). *Research in information sciences: an African perspective*. Ibadan: Stirling-Harden.
- Akakandelwa, A. (2000). *An assessment of user education on academic libraries: the case of the University of Zambia*. Master's Dissertation, University of Botswana.
- Alsaffer, J. (2007). *Understanding copyright and distance education*. In Clayton, S. (ed.), *going the distance: library instruction for remote users*. London: Facet.
- Appleton, M. (1997). *Reaching the remote student*. In Watson, E.F. and Jagannathan, N. (Eds.) *Library services in the Commonwealth: a reader*. Vancouver: The Commonwealth of Learning.
- Ashby, C. M. (2002). *Distance education: Growth in distance education programs and implications for federal education policy* (GAO Report GAO-02-1125T). Washington, DC: United States General Accounting Office.
- Association of College and Research Libraries (ACRL), 2008. *Standards for distance learning library services*. Chicago: American Library Association. Available at: <http://www.ala.org/acrl/standards/guidelinesdistancelearning> . (Accessed 21 March 2014).
- Association of College and Research Libraries (ACRL), 2011. *Standards for libraries in higher education*. Chicago: American Library Association. Available at: <http://www.ala.org/acrl/standards/guidelinesdistancelearning> . (Accessed 21 March 2014).
- Ault, M. (2002). *Thinking outside the library: how to develop, implement and promote library services for distance learners*. *Journal of Library Administration* [online], 37 (1/2), 1-2. Available at: http://www.tandfonline.com/doi/abs/10.1300/J111v37n01_05. (Accessed 21 March, 2014)
- Babbie, E. and Mouton, J. (2001). *The practice of social research*. Wadsworth: Belmont.

Barnhart, A. & Stanfield, A. (2011). When coming to campus is not an option: using web conferencing to deliver library instruction. Reference Services Review [Online], 39 (1), 58-65. Available at: www.emeraldinsight.com/0090.7324.htm (Accessed 18 February 2015).

Black, E. and Blankenship, B. (2010). Linking students to library resources through the learning management system. Journal of Library Administration, 50 (5/6), 458-467.

Blurton, C. 1999. Chapter 2: New directions in education. In: UNESCO's World communication and information 1999-2000. Paris: UNESCO: 46-61.

Boadi, B.Y. and Letsolo, P. (2004). Information needs and information seeking behaviour of distance learners at the Institute of Extra-Mural Studies in Lesotho. Information Development, 20 (3), 189-99.

Borg, W. R. and Gall, M. D. (1996). Educational research: an introduction (sixth edition). New York: Longman.

Brooke, C. (2011). An investigation into the provision of library support services for distance learners at UK universities: analysing current practice to inform future best practice at Sheffield Hallam University. Master's dissertation. Sheffield Hallam University.

Buchanan, E. (2000). Going the extra mile: serving distance education students. Online Journal of Distance Learning Administration, 3 (1), State University of West Georgia: Distance Education Center.

Burge, E. J., & Howard, J. L. (1990). Audio-conferencing in graduate education: A case study. The American Journal of Distance Education, 4 (2), 3-13.

Busha, C.H. & Harter, S.P. (1980). Research methods in librarianship: techniques and interpretation. New York: Academic Press.

Cavanagh, A.K. and Tucker, J. (1997). A library service to distance learners: what should the library provide? In Watson, E.F. & Jagannathan, N. (Eds.) Library services in the Commonwealth: a reader. Vancouver: The Commonwealth of Learning.

Chen, L. (1997). Distance delivery systems in terms of pedagogical considerations: A revolution. *Educational Technology*, 37 (4), 34-37.

Chifwepa, V. (2006). Development of a model plan for the application of information communication technologies in distance education at the University of Zambia. PhD thesis. University of Zambia.

Cooper, J.L. (2000). A model for library support of distance education in the USA. *Interlending & Document Supply*, 28 (3), 123 – 131. Available at: <http://dx.doi.org/10.1108/02641610010344792>. (Accessed 23 April, 2015).

Corbett, A. and Brown, A. (2015). The roles that librarians and libraries play in distance education settings. *Online Journal of Distance Learning Administration*, xviii, 2.

Daley, J.D. et al (2001). Exploring learning in a technology-enhanced environment. In *Educational Technology & Society* [online], 4 (3). Available at: http://ifets.ieee.org/periodical/vol_3_2001/daley.htm. (Accessed 4 December, 2014).

Denscombe, M. (2003). *The good research guide for small-scale social research projects*. 2nded. Buckingham: Open University Press.

Dew, S.H. (2001). Knowing your users and what they want: surveying off-campus students about library services. *Journal of Library Administration*, 31 (3/4), 177-198.

Ekpeyong, G.D. (2003). *Marketing and promotion of information services in the University of Ibadab Library*. London: Sage Publications.

Feather, J. & Sturges, P. (2003). *International encyclopaedia of information and library science*. 2nded. London: Routledge.

Gadd, E. (2002). Meeting the library needs of distance learners without additional funding. *Library Management*, 20 (89), 359-68.

- Gandhi, S. (2003). Academic Librarians and Distance Education: challenges and opportunities. *Reference and User Services Quarterly* 43, (2), 138-154. Available at: <http://www.jstor.org/stable/20864157>. (Accessed 21 March 2014).
- Gilliard-Cook, T. (1997). Distance education information network technology and learning. Available at: <http://web.syr.edu/%7Etgillard/656/index.html>. (Accessed 10 February, 2015).
- Gopakumar, A. and Baradol, A. (2009). Assuring quality in distance education for Library and Information Science: the role of the library. *Library Philosophy and Practice*.
- Haider, S.J. (2004). Coping with change: issues facing university libraries in Pakistan. *The Journal of Academic Librarianship*, 30 (3), 229-236.
- Halsne, A. M. & Gatta, L.A. (2002). Online versus traditionally-delivered instruction: A descriptive study of learner characteristics in a community college setting. *Online Journal of Distance Learning Administration*, 5 (1). Available at: <http://www.westga.edu/~distance/ojdla/spring51/halsne51.html> (Accessed 12 January, 2015).
- Hansen, B. (2001). Distance learning: do online courses provide a good education? *CQ Researcher*, 11, 993-1016.
- Hawkins, G.W. & Baker, J.D. (2005). Online learner expectations. *Encyclopaedia of distance learning*. Hershey, PA: Idea Group Reference.
- Heap, E. (2001). Distance learners: information resource issues for policy makers. *SCONUL Task Force on Access for DL*. London: SCONUL.
- Heery, M. (1996). Academic library services to non-traditional students. *Library Management*, 17 (5), 3-13.
- Henning, J.C. (n.d.). *Management of Distance Library services with reference to learner support*. Pretoria: Van Schaik Publishers.
- Hensley, M.K. and Miller, R. E. (2010). Listening from a distance: A survey of University of Illinois distance learners and its implications for meaningful instruction. *Journal of Library*

Administration, 50, (5-6), 670, 683. DOI: 10.1080/01930826.2010.488946 (accessed December 1, 2014).

Hermosa, N.N. and Anday, A.G. (2008). Distance learning and digital libraries: the UP Open University experience. *Journal of Philippine Librarianship*, 28 (1), 90-105.

Hines, S.S. (2006). What do distance education faculty want from the library? Available at: <http://weplib.lib.umt.edu/faculty/hines/handouts/posterhandout.pdf> (Accessed 18 June, 2014).

Hoffman, S. (2011). Embedded academic librarian experiences in online courses: Roles, faculty collaboration, and opinion. *Library Management*, 32 (6/7), 444-456.

Holloway, K. (2008). ILLiad, document delivery, and the distance student: how document delivery can enhance support for distance library users. *Journal of Library Administration* [online], 48 (3), 479-493. Available at: <http://dx.doi.org/19.1080/01930802289599> (Accessed 10 March. 2014).

Holowachuk, D. (1997). The role of librarians in distance education. Available at: <http://hollyhock.slis.ualberta.ca/598/darlene/distance.htm> (Accessed 10 May, 2014)

Hyland, F. (2001). Providing effective support: Investigating feedback to distance language learners. *Open Learning*, 16 (3), 234-247.

Johnson, K. (2002). Library services for distance learners at Drexel University's LeBow College of Business. *Journal of Business and Finance Librarianship* 7, (2/3), 141. Haworth Press (ISSN: 0896-3568)

Kakana, F.K. (2008). An evaluation of library support services for distance education students at the University of Zambia. Masters dissertation. Northeast Normal University.

Kascus, M. (1994). What library schools teach about library support: a survey. *The American Journal of Distance Education*, 8 (1), 20-35.

Kazmer, M.M. (2002). Distance education students speak to the library: here's how you can help even more. *The Electronic Library*, 20 (5), 395-400. Available at: <http://www.emeraldinsight.com/0264-0473.htm>. (Accessed 27 June, 2014).

Khasseh, A., Moghaddam, H.S., Jowkar, A. (2009). Distance education and the role of library services in Iran: a case study of Shiraz University Distance Learners. *Library Hi Tech News*, 26 (7), 11–14.

Kombo, D.K. and Tromp, D.L.A (2006). *Proposal and thesis writing: an introduction*. Nairobi: Pauline Publications Africa.

Kramer, S. (2010). Virtual libraries in online learning. In Rudestam, K. and Schoenholtz-Read, J. (ed.) *Handbook of online learning*. London: Sage.

Krathwohl, D.R. (1998). *Methods of educational & social research: an integrated approach*. New York: Longman.

Kularatne, E.D. (1997). Information needs and information provision in developing countries. *Information Development*, 13,117-121.

Lebowitz, G. (1997). Library services to distant students: an equity issue. *The Journal of Academic Librarianship* (July 1997), 303-308.

Leedy, P.D. (2001). *Practical research: planning and design*. 7th ed. New York: Prentice Hall.

Linden, J. (2000). The library's website is the library: designing for distance learners. *College and Research Library News*, February: 99-101.

Lockwood, J. (1964). *Report on the development of a University in Northern Rhodesia*. Lusaka: Government Printers.

Long, D. (2009). Going the extra-mile: designing a delivery service for remote borrowers. *Journal of Library and Information Services in Distance Learning*, 3 (3/4/), 182-191.

Maguire, L.L. (2005). Literature review – faculty participation in online distance education: barriers and motivators. *Online Journal of Distance Learning Administration* [online], 8 (1).

Available at: <http://www.westga.edu/%7Education/ojdla/srping81/maguire81.htm>. (Accessed 27 June, 2014).

Maurya, R.J. and Kumar, S. (2008). Using ICT in ODL system for providing Library and Information Services in International CALIBER-2008. Allahabad: Uttar Pradesh Rajarshi Tandon Open University.

McDonough, J., and McDonough, S. (1997). Research methods for English language teachers. London: Arnold.

Miyanda, E.M. (2010). Factors affecting utilization of electronic information resources and services by medical students at the University of Zambia. Masters dissertation. University of Zambia.

Morgan, A. R. (1997). Student learning and students' experiences. In F. Lockwood (Ed.), Open and distance learning today: (pp. 56-66). London: Routledge.

Ngulube, P. (2007). The nature and accessibility of e-government in Sub-Saharan Africa. Available at: www.i-r-i-e.net/ (Accessed 29 January, 2013).

Nwizu, S.C. (2008). Analysis of ICT usage in information generation and dissemination by distance education (DE) participants: Implications for the attainment of the Millennium Development Goals in Nigeria. In Boucouvalas, M., and Aderinoye, R. (Eds.) Education for Millennium Development: Essays in Honour of Professor Michael Omolewa, 2.

Oldham, B. (2008). Providing library services to distance education students. Journal of interlibrary loan, document delivery & electronic reserve, 18 (2), 219-227.

Oni, F.A. (2004). Enhancing the performance of library operations through appropriate Information Technology. Technology for Information Management and Service in Modern Libraries and Information Centres in Developing Countries. Madu, E.C. (Ed) Ibadan: EviColeman Publications.

Ramasodi, B. (2009). The information needs of student library users and the fulfilment thereof at the University of South Africa. Masters dissertation. University of South Africa.

Ritterbush, J. (2014). Assessing academic library services to distance learners: A literature review to perspectives from librarians, students, and faculty. *The Reference Librarian*, 55 (1), 26-36.

Robinson, B. (1995). Research and pragmatism in learner support. In F. Lockwood (Ed.), *Open and distance learning today* (pp. 221-231). London: Routledge.

Southern African Development Community (2004). *Protocol on Education and Training*. SADC.

Sampson, N. (2003). Meeting the information needs of distance learners. *Language Learning and Technology*, 7, (3), 103-118. Available at: <http://llt.msu.edu/vol7num3/sampson>. (Accessed 29 January, 2013).

Sheffield Hallam University (2011). *Distance Learning Support Service* [Online]. Sheffield: Sheffield Hallam University. <http://www.shu.ac.uk/services/sls/learning/support.html> (Accessed 10th February, 2015).

Siaciwena, R. (1989). *Management of distance education in Zambia*, (unpublished).

Simpson, O. (2000). *Supporting students in open and distance learning*. London: Kogan Page.

Slade, A. (2000). International trends and issues in library services for distance learning: present and future [Keynote address]. In Brophy, P., Fisher, S. & Clark, Z. (eds.), *Libraries without walls 3: the delivery of library services to distant users*. London: Library Association Publishing.

Smith, S. L. (2001). Student services: the key to distance education programs. Available at: <http://www.naspa.org/netresults/PrinterFriendly.cfm?ID=249>(Accessed 12 January, 2015)

Tait, A. (2000). Planning student support in distance and open learning. *Open Learning*, 15 (3), 287-299.

Tapfumaneyi, K.D.K. and Rupande, G. (2013). The challenges of establishing digital library services in an Open and Distance Learning (ODL) environment and the potential benefits: The road towards the integration of digital and traditional library services, the case of Zimbabwe Open University (ZOU). *International Journal of Advanced Research*, 1 (5), 519-526. Available at: <http://www.journalijar.com> (Accessed 21 March, 2014).

- University of Zambia (UNZA). (2012). Strategic plan 2013-2017. Lusaka: University of Zambia
- Van House, N.A., Weil, B.T. & McClure C.R. (1990). Measuring academic library performance: a practical approach. Chicago: American Library Association.
- Watson, E. F. (1992) Library services to distance learners: a report. In Watson, E.F. & Jagannathan, N. (eds.) Library services in the Commonwealth: a reader. Vancouver: Commonwealth of Learning.
- Watson, E.F. (1997). Distance librarianship: a perspective. In Watson, E.F. & Jagannathan, N. (eds.) Library services in the Commonwealth: a reader. Vancouver: The Commonwealth of Learning.
- Watson, E.F. (2006). Library services to distance learners: the new professional paradigms. Available at: www.col.org/forum/PCFpapers/watson.pdf (Accessed 21 March, 2014).
- Weiss, R. et al (2001). Ethical issues in survey research. Available at: <http://2000survey.horizon-research.com/> (Accessed 21 March, 2014).
- Whitehair, K. (2010). Reaching part-time distance students in diverse environments. *Journal of Library and Information Services in Distance Learning*, 4 (3), 96-105.
- Wolpert, A. (1998). Services to remote users: Marketing the library's role. *Library Trends*, 47(1):21-41.
- Yang, Y. and Cornelious, L.F. (2005). Preparing instructors for quality online instruction. *Online Journal of Distance Learning Administration*, 8 (1). Available at: <http://www.westga.edu/%Edistance/ojdl/spring81/yang81.htm>. (Accessed 21 March, 2014).
- Yang, Z.L. (2005). Distance Education Librarians in the U.S. ARL Libraries and Library Services Provided to their Distance Users. *The Journal of Academic Librarianship*, 31 (2), 92–97.
- Yusuf, M.O. (2005). Information and communication education: Analysing the Nigerian national policy for information technology. *International Education Journal*, 6 (3), 316-321.

Appendix A: Introductory letter for the questionnaire

THE UNIVERSITY OF ZAMBIA
DIRECTORATE OF RESEARCH AND GRADUATE STUDIES
SCHOOL OF EDUCATION

Dear Respondent,

I am a postgraduate student pursuing a Master degree in Library and Information Studies at the University of Zambia. I am conducting a survey on application of ICTs in library and information services to distance learning students at the University of Zambia.

The research intends to explore ways in which ICTs can be applied to library and information services delivery to distance learners at the University of Zambia in order to enhance service delivery.

You have been selected to fill in the questionnaire. Please be assured that the information you provide will be held in confidence and will be used solely for the purpose for which it is intended.

The time and effort it takes to complete this questionnaire is much appreciated and it will make a significant contribution both to my research and to the Library.

Thank you for your assistance,

Inonge Imasiku.

Appendix B: Questionnaire

Instructions

1. Do not indicate your name or identity number on the questionnaire
2. Please tick the correct option and where requested, write your answer in the space provided.

Section A: Background Information

1. Gender (a) Yes (b) No
2. Age group
(a) Below 18 years (b) 18 to 25 years
(c) 26 to 33 years (d) 34 to 41 years
(e) Above 41 years
3. Marital status
(a) Married (b) Single
(c) Divorced (d) Widowed
4. Year of study
(a) First year (b) Second year
(c) Third year (d) Fourth year
5. Quota/Programme of study (e.g. B.A. LIS, B.A.E) _____
6. Town of Residence _____
7. Type of student (a) Studying only (b) Working and studying

Section B: Awareness of and access to existing resources and services

8. As a distance learner, what is your level of agreement with the following statements:
(a) I am entitled to library resources and services regardless of where I am located
(i) I strongly agree (ii) I agree
(iii) I disagree (iv) I strongly disagree
(b) UNZA Library should provide training on how to access ICT enabled information resources and services
(i) I strongly agree (ii) I agree
(iii) I disagree (iv) I strongly disagree
9. Do you find any problems in using UNZA Library?
(a) Yes (b) No If no, go to 11 below
10. I find it difficult to use UNZA Library resources and services because: (tick)

	Strongly agree	Disagree	Strongly disagree
(i) Staff support isn't always available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Cannot access at time that is convenient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) It is quicker to use other sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) I find information I need elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(v) Have trouble accessing resources e.g. e-journals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(vi) Downloading e-resources isn't always possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(vii) I am not aware of resources and services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Using a link on the UNZA library website, are you able to download an electronic article?
 (b) Yes [] (b) No [] (c) I don't know how to []
12. Do you have access to UNZA library information resources and services to help you complete your assignments? (a) Yes [] (b) No []
13. If no to 12 above, where do you access information resources from?
 (a) Workplace [] (b) Public Library []
 (c) Other institutional Library [] (d) I do not use any resources []
 (e) Other, please specify _____
14. Which of the following library services and resources are you aware of? Tick as many as apply.
 (a) OPAC (online catalogue) []
 (b) Assistance with information search and retrieval []
 (c) Assistance with/instruction in use of non-print resources (e.g. e-journals, e-books) []
 (d) Instruction in general library use []
 (e) Provision of computers and Internet []
 (f) Study space []
 (g) Printing and/or photocopying services []
 (h) Library print material e.g. books []
 (i) Instruction in technology use (such as computers, email, Internet) []
 (j) UNZA e-resources such as research repository, e-journals, etc. []
 (k) Other, Specify _____
15. How did you learn about the information resources and services in 14 above?
 (a) UNZA library website [] (c) From other students []
 (b) During library orientation [] (d) Through library's marketing programme []

Section C: Competence levels and use of ICT Library and Information resources and services

16. What resources do you prefer? (a) Physical (e.g. book) [] (b) Electronic []
17. Briefly explain your preference in 16 above

18. Did you make use of the UNZA library during the previous academic year?
 (a) Yes [] (b) No []
 If no, please briefly explain why not and proceed to question 20

19. For what purposes did you make use of the UNZA library? (tick as many as apply)
 (a) To study [] (b) To attend UNZA library training session []
 (b) To use the Internet [] (d) To conduct research []
 (c) To type assignment [] (f) Other, specify _____
20. In your view, which of the following best describe what ICT (Information communication technologies) is? (tick as many as apply)
 (a) Computers/laptops []
 (b) Internet/email []
 (a) Electronic information resources []
 (b) Phones []

- (c) Network hardware and Software []
- (d) Application software (e.g. Microsoft word, PowerPoint, SPSS) []
- (e) Printers/faxes []
- (f) All of the above []

21. Have you ever used ICT resources and services (e.g. computer, Internet, e-book) for academic purposes? If no, proceed to question 24.

- (a) Yes []
- (b) No []

22. For what purposes did you use ICT?

- (a) Typing assignment []
- (b) OPAC search []
- (c) Internet information search and retrieval []
- (d) To access UNZA information resources (e.g. online databases, e-journals) []
- (e) To access UNZA Library website []
- (f) Other, please specify _____

23. How did you learn how to use the various ICTs you are using?

- (a) Trained myself []
- (b) Training by UNZA library []
- (c) Through friends []
- (d) Training by school []
- (b) Other, please specify _____

24. How would you rate your ICT skills?

- (a) Excellent (require no assistance) []
- (b) Very good (rarely require assistance) []
- (c) Good (Sometimes require assistance) []
- (d) Fair (require assistance most times) []
- (b) Poor (Always require assistance) []

25. Would it be desirable for the UNZA Library to organise trainings to improve your ICT skills?

- (a) Yes []
- (b) No []

26. If yes to (25) above, in your view, how would such training be beneficial to you?

- (a) I would be able to type assignments/reports on my own []
- (b) I would find it easier to search for and use information I need []
- (c) Opens up more and richer information sources to improve academic work []
- (d) Other, please specify _____

27. Have you ever been unable to get library resources that you needed?

- (a) Yes []
- (b) No []

If yes, what was the problem? (Please be brief)

28. If you need help in finding information for your assignments, who do you ask for help *first*?

- (a) Library Staff at UNZA []
- (b) Library Staff at local library []
- (c) Other students in same course []
- (d) Friends/family member []
- (e) Other []

29. Are the UNZA Library staff members usually helpful?

- (a) Always []
- (b) Sometimes []
- (c) Never []
- (d) Not applicable []

30. It would be desirable to have a specific contact person/desk in the library dedicated to distance learners queries/consultation
 (a) I strongly agree [] (b) I agree [] (c) I disagree [] (d) I strongly disagree []

Section D: Challenges

31. Which of the following do you believe presents the greatest challenge to you as a distance learner in relation to using the library? Please rank, by ticking, from 1 (presents the least challenge) to 9 (presents the greatest challenge)
- | | | | | | |
|--|---|---|---|---|---|
| (a) A feeling of isolation | 1 | 2 | 3 | 4 | 5 |
| (b) Lack of confidence/knowledge in using library | 1 | 2 | 3 | 4 | 5 |
| (c) Inability to access some resources/services from outside UNZA | 1 | 2 | 3 | 4 | 5 |
| (d) Bandwidth (takes too long to retrieve information) | 1 | 2 | 3 | 4 | 5 |
| (e) Distance (Library is too far) | 1 | 2 | 3 | 4 | 5 |
| (f) Inadequate ICT skills (e.g. use of computer) | 1 | 2 | 3 | 4 | 5 |
| (g) Balancing studying with other commitments e.g. family, work | 1 | 2 | 3 | 4 | 5 |
| (h) Inability to contact library staff using ICT e.g. email | 1 | 2 | 3 | 4 | 5 |
| (i) Difficulty in finding and assessing quality of information for assignments | 1 | 2 | 3 | 4 | 5 |
| (j) Inability to consult librarian when I am not physically at UNZA library | 1 | 2 | 3 | 4 | 5 |
32. As a distance student, what other challenges do you face in terms of access to library information resources and services?
-

Section E: Recommendations

33. Which technology would you recommend UNZA uses as a means of communicating with you? Please rank from 1 (most preferred) to 8 (least preferred)
- | | | | | | |
|---|---|---|---|---|---|
| (a) E-mail | 1 | 2 | 3 | 4 | 5 |
| (b) SMS | 1 | 2 | 3 | 4 | 5 |
| (c) Facebook | 1 | 2 | 3 | 4 | 5 |
| (d) WhatsApp | 1 | 2 | 3 | 4 | 5 |
| (e) Chat/Instant messaging (e.g. yahoo messenger) | 1 | 2 | 3 | 4 | 5 |
| (f) UNZA Library Website | 1 | 2 | 3 | 4 | 5 |
| (g) Through UNZA e-learning system | 1 | 2 | 3 | 4 | 5 |
| (h) Dedicated website for distance learners | 1 | 2 | 3 | 4 | 5 |
34. What would you want UNZA Library to do to improve your learning experience at UNZA?
-

Appendix C: Interview Guide for Library Administrative Staff

1. Please state your age _____
2. How long have you served in your capacity as UNZA Librarian? _____
3. How are services currently being provided to distance learners (e.g. staffing and staff training so as to meet the needs of this group)?
(a) Is there a particular person, desk or set of services designed specifically for DLs?

4. What challenges does the library face when it comes to library support for DL?

5. Are you satisfied with the level of support the Library is currently offering to DLs?
 - (a) General
(i) Yes [] (ii) No []
Explain your answer _____
 - (b) ICT
(i) Yes [] (ii) No []
Explain your answer _____
6. Are you aware of the existence of standards for Libraries in higher education (2011) as well as those of distance learning library services (2008)? –equity issue and rights of IDE learners, plus guidance on how libraries should place themselves as strategic partners in educating students. (a) Yes [] (b) No []
7. If yes to 5 above, how are you implementing/hope to implement issues covered in both Standards?

8. Is there a deliberate (written down) policy on library services to DL? (a) Yes [] (b) No []
9. If yes to 7 above, is there a specific ICT policy? (a) Yes [] (b) No []
10. What would be important elements to include in such a policy?

11. What is your vision when it comes to library information resources and services for the distance learner?

12. In your view, what would be the best way (model) for UNZA Library in terms of managing library resources and services to DL? _____
13. Is there anything else you would like to add which has not been covered in the questions I have asked so far?

Thank you for your time.

Appendix D: Interview Guide for Librarians

1. Gender (a) Female [] (b) Male []
2. Age group (a) Below 18 years [] (b) 18 to 25 years []
(c) 26 to 33 years [] (d) 34 to 41 years [] (e) Above 41 years []
3. How is provision of library information resources and services to distance learners organised?
(a) All services are provided by single dedicated distance learning team (single contact point)
(b) Some services are provided by single dedicated team, with others the responsibility of relevant team
(c) No distinction is made between DL and on-campus learners
4. How DLs are made aware of information resources and services available to them and indeed any other relevant information?
(a) Brochures/pamphlets (b) UNZA Library web pages
(b) During orientation (c) Other, specify _____
5. Would you say the methods mentioned in 2 above have been effective in marketing the Library's resources and services to DLs? (Explain your answer)

6. Do DLs access e-resources (e.g. databases and e-journals) in the same way as on-campus students? (a) Yes [] (b) No []
7. If no to 4 above, how differently do DLs access e-resources? _____
8. Does the Library have a dedicated distance learning web page? (a) Yes [] (b) No []
9. If yes to 6 above, what information does the web page contain? _____
10. How does the Library provide its own physical resources to DLs?
(a) Post books (b) Scan and e-mail resources
(c) Post photocopied resources (d) Only provide when learner physically visits the library
11. How do you provide user education in library use to DLs?
(a) Online guides (b) Face-to-face training
(d) During orientation (d) Other, specify _____
12. In your view, how effective has this training been? _____
13. How do you provide DLs with information literacy skills?
(a) Online tutorials (b) Face-to-face training (c) Printed guides
14. How do you provide information enquiry services to distance learners?
(a) E-mail (b) Facebook (c) E-learning link

(b) Telephone (e) Other, specify _____

15. What are the main challenges/barriers you face when supporting the needs of DLs?

16. Would ICT help reduce some of these challenges? (a) Yes (b) No

17. If yes, in what ways? _____

18. Would staff training in technology use help improve service delivery to DLs? (a) Yes (b) No

19. How strongly do you agree/disagree that each of the following represents a significant opportunity to develop/improve library support to distance learners?

(a) Use of social networking sites (e.g. Facebook): Strongly agree Agree Disagree Strongly disagree

(b) Changes in copyright law to allow for digitizing material: Strongly agree Agree Disagree Strongly disagree

(c) Technologies to support user education: Strongly agree Agree Disagree Strongly disagree

(d) E-referencing Strongly agree Agree Disagree Strongly disagree

(e) Remote access to library resources: Strongly agree Agree Disagree Strongly disagree

20. In your view, which of the following presents the greatest challenge to a distance learner in relation to using the library? Please rank, by ticking, from 1 (presents the least challenge) to 5 (presents the greatest challenge)

(k) A feeling of isolation 1 2 3 4 5

(l) Lack of confidence/knowledge in using library 1 2 3 4 5

(m) Inability to access some resources/services from outside UNZA 1 2 3 4 5

(n) Bandwidth (takes too long to retrieve information) 1 2 3 4 5

(o) Distance (Library is too far) 1 2 3 4 5

(p) Inadequate ICT skills (e.g. use of computer) 1 2 3 4 5

(q) Balancing studying with other commitments e.g. family, work 1 2 3 4 5

(r) Inability to contact library staff using ICT e.g. email 1 2 3 4 5

(s) Difficulty in finding and assessing quality of information for assignments 1 2 3 4 5

(t) Inability to consult librarian when not physically at UNZA library 1 2 3 4 5

21. Is there anything else you would like to add which has not been covered in the questions I have asked so far? _____

Thank you for your time.

Appendix E: Interview guide for Head, Learner Support (IDE)

1. How long have you been in Learner Support?
2. How many provincial centres are in IDE (as at date)
3. How many registered distance learners does UNZA have?
4. What services does Learner Support offer to distance learners?
5. What challenges do you face when supporting the needs of students?
6. Are you satisfied with the level of support distance learners receive?
7. What plans are in place to improve support to DL when it comes to accessing library information resources and services?
8. Would the establishment of a policy on distance library services be of any help?
9. What have I not covered that you would like to add?

Thank you for your time.