

**AWARENESS AND USAGE OF ELECTRONIC LIBRARY RESOURCES IN OPEN
DISTANCE LEARNING BY THIRD-YEAR STUDENTS IN THE SCHOOL OF ARTS
AT THE UNIVERSITY OF SOUTH AFRICA**

by

MERCY MOYO

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SUPERVISOR: PROF P NGULUBE

CO-SUPERVISOR: PROF. L DUBE

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ABSTRACT

During the 21st century, electronic resources have become an important component in every sector of society and the academic sector is no exception. Academic libraries worldwide have adopted the technologies involved in electronic resources, with some replacing their traditional collections with e-resources, which are more accessible by users.

This study was conducted at the University of South Africa (Unisa) and was aimed at investigating the levels of awareness and usage of e-resources by third-year students in the School of Arts. The study used the descriptive survey study design, which is quantitative in approach. The target population comprised of 5 377 third-year students enrolled in the seven departments in the School of Arts and a proportional sample of 360 students was drawn from the population by using stratified random sampling. Library staff was also included in the study, in order to determine students' usage patterns of e-resources and to establish initiatives available at the Unisa Library to increase awareness and use of e-resources. Online questionnaires distributed via Survey Monkey were used as the data collection instrument.

The study established that the Unisa Library subscribes to a wide range of e-resources and has a number of initiatives in place to encourage the awareness and usage of these resources. However, 50, 3% of the student respondents were unaware of the availability of Unisa e-resources. The study also established that the majority of students use e-resources for study and research and that, although they have basic information and communication technologies (ICTs) skills, the majority of students lack advanced information search and retrieval skills, which are required to utilise e-resources properly. The four main barriers that prevent students from accessing and using e-resources were the cost of access to the internet, unavailability of relevant literature for studies, lack of time to do online searches and preference for information freely available on the internet.

To encourage increased awareness and use of e-resources, the study recommend the development of an e-resources marketing strategy, the introduction of an information

literacy module for all first-year students, the provision of infrastructure and technologies for access, development of specialised library assistance services, balancing of the electronic library collections across different subjects, tutors including more e-resources references in study guides and tutorial letters and hiring of more library staff.

The study concludes that the Unisa Library has a wide variety of electronic library resources and services needed in academic institutions, but awareness and usage of the resources is quite low, due to several factors highlighted in the study. Therefore, the Library should step forward and ensure that the resources are fully utilised by following the recommendations suggested in the study.

KEY TERMS

Access to information; awareness and usage of e-resources; electronic library resources; information literacy, open distance learning; third-year students, University of South Africa.

DEDICATION

This thesis is dedicated to my late father, Mr. Gift Moyo; my mother, Mrs Hellen Ndaruza; my sons, Lesley and Leeroy Moyo; and to my late colleague, Vimbai Matakaire Hungwe, who pushed me to enrol for my first degree programme at Unisa and showed me that it is never too late to pursue your passion and to develop yourself personally and professionally.

“As for me, I call to God, and the Lord saves me. Evening, morning and noon I cry out in distress, and he hears my voice.”

Psalm 55:16–17

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Last but not least, I would like to thank the administrators of the Unisa Masters and Doctoral Bursary for believing in me and for funding me for three consecutive years, which eased my financial pressure and enabled me to conduct and complete my studies successfully.

DECLARATION

I, Mercy Moyo, Student Number 43470483, declare that this thesis entitled “**Awareness and usage of electronic library resources in open distance learning by third-year students in the School of Arts at the University of South Africa**” being submitted to University of South Africa (Unisa) for the award of a degree of Masters of Information Science is my original work and to the best of my knowledge, it has never been submitted at any other institution for any academic award. All the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

.....

Mercy Moyo

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Date

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LIST OF ABBREVIATIONS AND ACRONYMS

BBS	Bulletin Boards
CAS	College of Accounting Sciences
CAES	College of Agriculture and Environmental Sciences
CEDU	College of Education
CEMS	College of Economic and Management Sciences
CETUS	Consortium for Educational Technology for University Systems
CHS	College of Human Sciences
CLAW	College of Law
CSET	College of Science, Engineering and Technology
DOAJ	Directory of Open Access Journals
GAELIC	Gauteng and Environs Library Consortium
HE	Higher education
ICTs	Information and communication technologies
JISC	Joint Information Systems Committee
NQF	National Qualifications Framework
OCLC	Online Computer Library Centre
ODL	Open distance learning
OPAC	Online public access catalogue
SASLI	South African Site Licensing Initiative
SMS	Short Messages Service
Unisa	University of South Africa
WWW	World Wide Web

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CHAPTER 1: BACKGROUND TO THE STUDY

1.1 Introduction

Although electronic resources cannot entirely be regarded as “new” information sources anymore, the uptake in utilising these resources still appears to be problematic for various reasons. In developing countries, in particular, electronic resources seem to be more underutilised by the student populations than in the developed countries. Although a number of studies have been done to establish awareness and utilisation of electronic resources in a tertiary education environment, not many have been done to establish whether distance learning students are actually aware of and use electronic resources. This study provides valuable insight into distance learners’ awareness and use of electronic resources.

1.2 Conceptual Setting

Ani (2013) remarks that one of the major goals of universities worldwide is “providing an enabling environment for conducting research and dissemination of knowledge for the betterment of society”. In order to realise this goal, universities need to ensure the availability of information resources and other resources and services. Academic libraries endeavour to ensure that information resources are available to address and support their users’ teaching, learning and research needs (Gakibayo, Ikoja-Odongo & Okello-Obura 2013; Khan, Bhatti, Khan & Ismail 2014; Hermosa & Anday 2008). To fulfill this mission, academic libraries worldwide are developing ways to enable their users to access information in the best possible ways. The advent of information and communication technologies (ICTs) has had a major and positive effect on this endeavour, as pointed out by Khalid in Amjad, Ahmed and Naeem (2013). This has, in turn, led to libraries adding what is termed an “electronic library resources collection” to their “traditional/hard copy resource collection” (Nazir 2004).

Amjad, Ahmed and Naeem (2013) and Kumar (2009) observe that developments in information technologies have resulted in some libraries changing the conventional format of resources and research to digital and electronic format. Modern information

relies more heavily on electronic resources than on print resources – to the extent that, if a resource is not available online, then it practically does not exist for them (Kennedy 2011). A study on electronic publications in Chinese public libraries established that, in China, electronic resources had replaced print resources in both academic and public libraries (Bin & Miao 2005). Chirra and Madhusudhan (2009) note that electronic library resource subscriptions have become more important to academic libraries than building on-site collections. This may be particularly true in open distance libraries, where students are dispersed geographically and rarely visit the library.

The advantages of electronic library resources over print sources cannot be over-emphasized. Electronic library resources allow remote access 24/7; enable access to enormous numbers of resources at a lower cost; promote efficiency in the dissemination of information; can be more easily updated; save space; are easy to maintain; have searching capabilities, which are not available in print (Ani 2013; Atakan, Atilgan, Bayram & Arslantekin 2008; Buchholz 2011; Nazir 2004; Tenopir 2003). Also, electronic resources have enabled libraries to serve their users better, as they allow users access to a wider range of materials – even material that is not held locally by their libraries. Eighty-five percent of college students participating in the Online Computer Library Centre (OCLC) study completely agreed that electronic magazines/journals provide worthwhile information (De Rosa, Cantrell, Cellentani, Hawk, Jenkins & Wilson 2005).

In view of the advantages of electronic library resources, it is important that awareness and usage of these resources are realised, in order for users to meet their information, research and learning needs. The use of library resources does not only benefit library users; it also enables the library as an entity to realise its purpose and to calculate the benefit of investing in these resources (Calland & Diallo 2013). Institutions can reap the benefits of investing in electronic library resources if their users have adequate information literacy skills to use the resources meaningfully (Ukachi 2015). Anaraki and Babalhavaeji (2013) also support this idea and point out that, besides awareness, library users also need skills, information management resources, the ability to utilise related ICTs and effective and efficient communication in the electronic environment.

The advent of distance learning has led to the development of distance librarianship – i.e. the librarianship profession has been redefined through the adaptation of the services needed for this type of learning (Watson 2000). Similar to traditional academic libraries, distant learning libraries also endeavour to provide support services to institutional learners (Hermosa and Anday 2008). As the term *distance learners* indicate, these learners are geographically removed or distant from their institutions of study and they barely have face-to-face interaction with their lecturers. They rely on tutorial materials to complete their studies and this tutorial material is often not substantive enough; it has to be supplemented by library information resources to enable students to complete their studies successfully (George & Frank 2004). In distance learning, learners are dispersed geographically, with some not being able to visit the physical library and, therefore, it is important for these learners to be aware of the electronic resources available to them and that they use these resources to fulfill their learning needs.

Distance learners also have the right to the same services and resources as full-time learners and, in this way, the availability of quality electronic resources that can be accessed remotely tally well with the fact that distant learners are barely at their institutions of study (Graham 2009; Hermosa & Anday 2008). According to Amjad, Ahmed and Naeem (2013), electronic library resources connect academic communities and scholars and, therefore, distance learning libraries should ensure that their services and instructions actually make this possible. The Consortium for Educational Technology for University Systems (CETUS) note that technology is the best way to bridge the gap between the demand for more services against less staff, money and other resources in distance learning libraries (Snyder, Carter & Hostetler 2008).

1.3 Contextual Setting

Bak, as cited by Constable (2007), defines the *contextual setting* of a problem as “an analysis of the circumstances in which the problem and idea arose”. He further explains that contextual setting goes beyond analysing the circumstances surrounding the problem, but also looks at the institution, characteristics and the type of people being investigated.

This section will, therefore, analyse Unisa as an institution, the School of Arts as the school from where the study population was drawn, third-year students at Unisa as the target population and the Unisa Library, which is the section of Unisa where the study will be focused.

1.3.1 University of South Africa (Unisa): history and structure

The University of South Africa (Unisa) is one of the leading open distance learning universities in the world, with an enrolment of over 400 000 students from across South Africa, Africa and other parts of the World (Unisa 2016h). With its history dating back to as early as 1873 as the University of the Cape of Good Hope, Unisa became the pioneer public university in the world to teach exclusively by means of distance education in 1946. At its formation, Unisa initially operated as an examining body and changed its name from the University of Good Hope to the University of South Africa in 1916. In 1997, Unisa was merged with Technikon Southern Africa and Vudec to form a dedicated distance education institution, following the resolution by the Higher Education (HE) Act that higher education should meet both individual education and societal developmental needs (Unisa 2016a).

Unisa currently has the following eight colleges (Unisa 2016b):

- College of Accounting Sciences (CAS);
- College of Agriculture and Environmental Sciences (CAES);
- College of Economic and Management Sciences (CEMS);
- College of Education (CEDU);
- College of Graduate Studies;
- College of Human Sciences (CHS);
- CHS-College of Law (CLAW); and
- College of Science, Engineering, and Technology (CSET).

These eight colleges offer a wide range of qualifications and, within the different colleges, there is a number of schools, which are further broken down into several departments.

Within this structure, Unisa offers its learners a wide range of study fields, from certificate to doctoral level.

As a distance learning institution, the University promotes and supports self-teaching and learning by its students, who are located worldwide, through various resources. This ensures that the University delivers the best possible service to its learners, thereby enabling them to complete their studies successfully. Unisa's model of teaching is open distance learning (ODL), guided by the principles of learner-centredness, lifelong-learning, the flexibility of learning facilitation provisioning, removal of barriers to access, recognition of prior learning, the provision of relevant learner support and the construction of learning programs (Unisa 2016g).

1.3.2 School of Arts

The School of Arts falls under the College of Human Sciences, which also includes the School of Humanities and the School of Social Sciences. In addition to these three schools, the College is also made up of several centres, institutes and units and each School is made up of several departments.

The researcher selected the School of Arts for this study because she is enrolled in this School, which gave her the advantage of being familiar with the School (Mamafha 2013). The other reason for selecting the School of Arts was that it is the School with the highest number of departments compared to the other schools, centres, institutes and units in the College of Human Sciences. The School of Arts offers a range of qualifications, from non-formal learning programmes and certificates to formal diplomas, Bachelor's degrees and (postgraduate) Honours, Master's and Doctoral degrees (Unisa 2016f).

The School of Arts comprises of the following seven departments:

- African Languages;
- Afrikaans and Theory of Literature;
- Art History, Visual Arts, and Musicology;
- Communication Science;

- English Studies;
- Information Science; and
- Linguistics and Modern Languages.

1.3.3 Third-Year Students

At Unisa, *third-year students* are defined as students who are conducting the third and final level under NQF level 5, 6 or 7 of the undergraduate studies, depending on the degree involved. Unisa Bachelor's NQF level 5, 6 or 7, degree curriculum is divided into three levels, with the expectation that each level is completed in one year. In the first year, the student does the first level modules and when they pass, they enrol for the second level modules in Year 2. Finally, in Year 3, which is the final level of the Bachelor's Degree, they enrol for third level modules (UNISA 2016e).

1.3.4 Unisa Library

The first branch of the Unisa Library opened in 1946 – the same year that the University started offering distance learning courses. The Library has 13 branches, namely Muckleneuk, Sunnyside, East London, Johannesburg, Florida, Nelspruit, Durban, Cape Town, Rustenburg, Polokwane, Akiki, Ekurhuleni, and Pietermaritzburg (UNISA 2016c). According to the Unisa Library website, the library has over 1.5 million books, including 300,000 other items and over 4,000 current periodicals (Unisa 2016c).

The Unisa Library serves as a support department, in that it supports the university's principles of removing barriers to access and providing relevant learner support. The library resources available to support self-teaching and learning at Unisa include electronic resources (e-resources). E-resources form a major part of the Unisa Library services to its learners and academic staff, which makes it possible to reduce the bridge or distance between the library users and the Library (Aramide 2010).

The Unisa Library is one of the pioneer academic libraries in terms of the use of electronic library resources in South Africa (Snyman 2007). The initial launch of e-resources in the Unisa Library took place in 1999 and in 2005, e-books, full-text

dictionaries, and e-reference books were added to the library e-resource collection (Buchholz 2011). The University subscribes to an increasingly number of e-resources, including e-journals, e-books, e-zines, e-reference sources, digital collections, etc. In addition, the Unisa Library also has an institutional repository, which was launched in 2007, where all theses and dissertations of Unisa academic staff members, current and former students are deposited, which adds to the library's e-resource collection (Buchholz 2011, Unisa 2016c).

The Unisa Library electronic resources are acquired individually by the Library or as part of the library's membership of two consortia: the regional Gauteng and Environs Library Consortium (GAELIC) and the national consortium, the South African Site Licensing Initiative (SASLI) (Snyman 2007). The database subscriptions to Unisa electronic library resources include bibliographic, full-text, image, video and major reference works, which according to Unisa e-resources statistics, totalled up to 348 titles in 2013; 355 titles in 2014 and 351 titles in 2015. According to the Unisa Library statistics, as of 28 January 2015, the Unisa Library provided access to 95,905 e-journal titles and 161,367 e-books titles. These include the individual e-book titles purchased, as well as the e-books available within the subscription databases (Snyman 2007). These electronic resources are available to Unisa students and staff 24/7. Access to and use of the Unisa electronic library resources are governed by licence agreements between Unisa, the publishers, and providers of these resources, which the user has to accept before proceeding to the electronic resources page (Unisa 2016c).

To ensure that Unisa Library users utilise the available electronic resource, Unisa Library, among other user services, provides free face-to-face training covering the following topics: Introduction to Unisa Library services and procedures, Using Unisa Library Catalogue, Introduction to e-resources, Using reference sources, Introduction to Reference techniques and Research Skills (Unisa 2016i). There are also personal librarians for the different schools who assist students with their library queries.

In addition to making funds available for subscribing to electronic library resources, the Unisa Library also invests funds in running these training workshops. Therefore, it is crucial to do an investigation on the awareness and usage of the e-resources by the intended users. If awareness and usage of the resources are high, then the library will know that it is realising the cost of investing in e-resources and training in the use of e-resources. On the other hand, if usage and awareness are low, the study will recommend ways to increase awareness and usage of electronic library resources.

1.4 Problem Statement

As noted by Anaraki and Babalhavaeji (2013), development in technology has changed the concept of libraries from “holding” to “access” libraries. Although libraries still maintain the provision of print collections to their users, most academic libraries are slowly replacing their print collections with electronic collections – mainly because of the numerous advantages involved in these collections, compared to those of print collections. Some of the advantages of e-resource include: ease of access; ease of storage and management; access to huge amounts of information at a lesser cost; the promotion of efficiency in the dissemination of information; ease of update/s; saving space, searching capabilities; portability; and the control of flood of information (Amjad, Ahmed & Naeem 2013; Bhatia 2011; Bin & Miao 2005; Ansari & Zuberi 2010; Ani 2013; Nazir 2004).

Academic libraries make major investments in subscription fees, storage, information management systems, and awareness and promotion initiatives, in order to ensure that users are aware of and actually use the resources. It is, therefore, important for library users to be aware of and to make maximum use of the electronic library resources to fulfil their information needs so that the library can realise the benefit of investing in these resources (Constable 2007; Nicholas & Tomeo 2005; Oyewo & Bello 2014).

The e-resources budget for Unisa Library from the year 2014 to 2016, as presented in Table 1, shows that Unisa continuously invests millions of Rands to acquire the resources.

Table 1: Library e-resources budget allocation

2014	2015	2016
R48 000 000 to R50 000 000	R50 000 000 to R53 000 000	R55 000 000 to R58 000 000

However, e-resources usage statistics for the years 2013, 2014 and 2015, presented in Figures 1–3, show that six colleges reported on significant low usage.

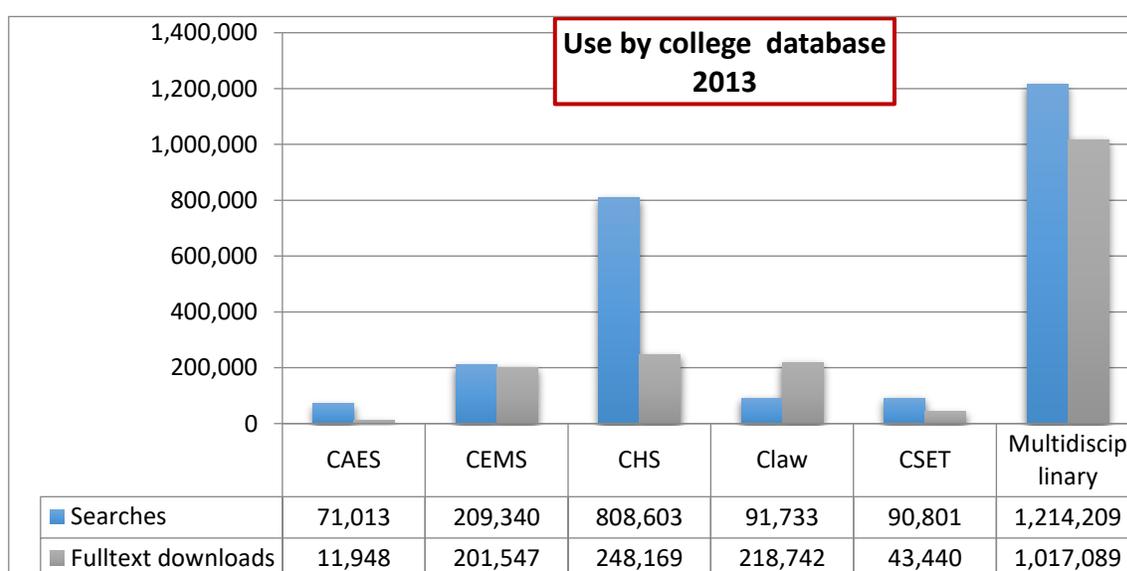


Figure 1: Use of college databases, 2013

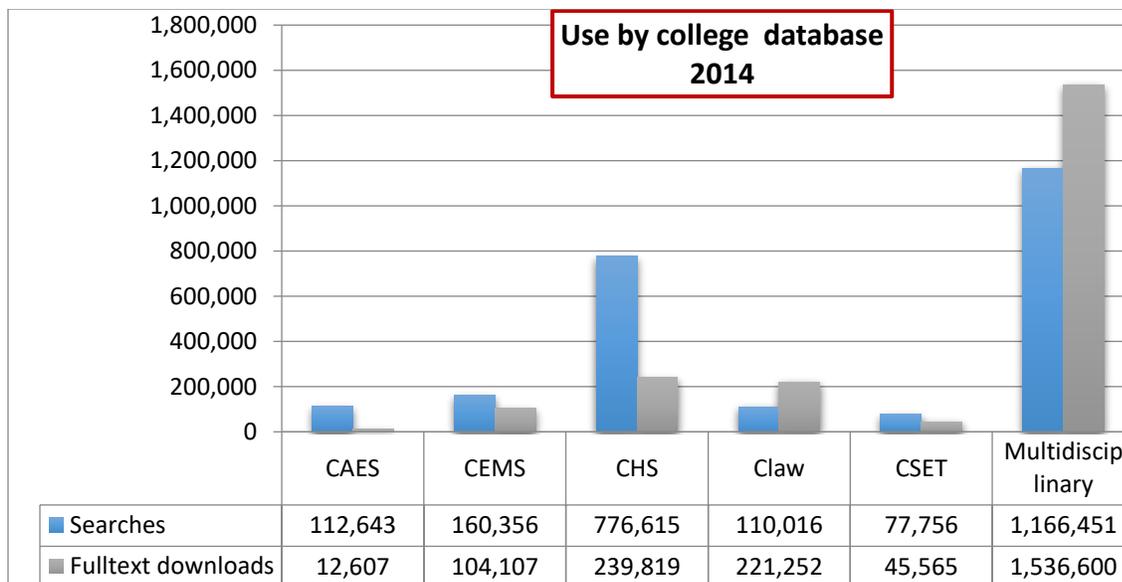


Figure 2: Use of college databases, 2014

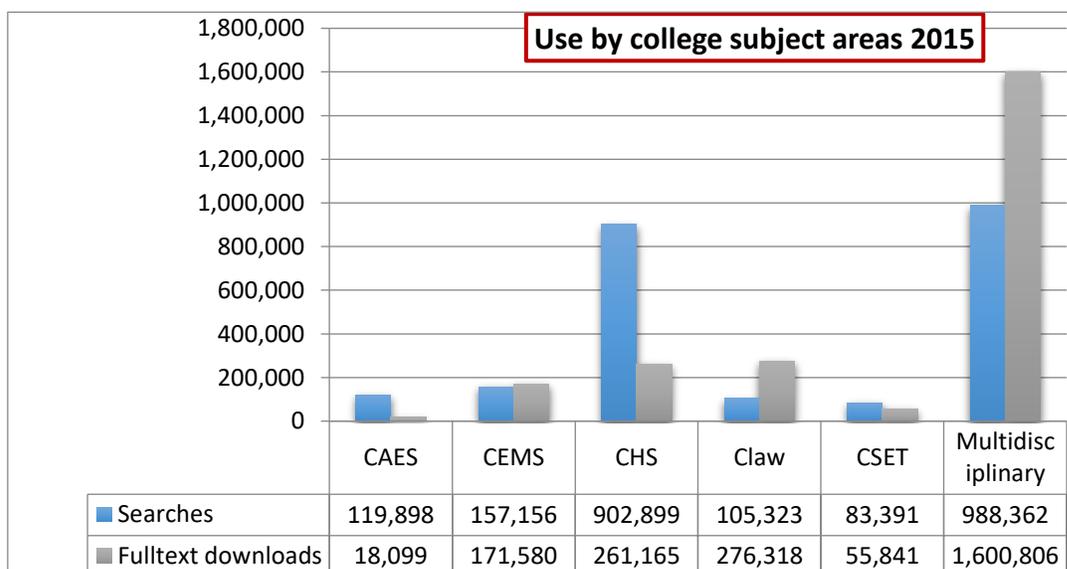


Figure 3: Use of college databases, 2015

Little effort has been made to establish student awareness and usage of e-resources at Unisa. It is against this background that the researcher intended to determine the awareness and usage levels of e-resources by third-year students in the School of Arts. If the students are aware of and actually use the resources, to what extent do they do so and, if they are unaware of or do not use the resources, the barriers that prevent them

from doing should be determined, so as to recommend ways of increasing the awareness and usage of e-resources to the Unisa Library.

1.5 Aims and Objectives of the Study

The overall aim of the study is to investigate the levels of awareness and usage of electronic library resources by Unisa third-year students in the School of Arts, in order to establish ways to encourage maximum awareness and usage of these resources, so that students can complete their studies successfully and the Unisa Library may realise the benefit of the cost of investing in e-resources.

1.5.1 Objectives of the study

In order to achieve the overall aim of the study, the objectives were to:

1. Identify the types of electronic library resources available to Unisa students;
2. Establish the initiatives available in the Unisa Library to encourage the use of electronic library resources by students;
3. Determine whether students are aware of and use electronic library resources;
4. Determine whether students are competent in the use of electronic library resources;
5. Determine the purpose and extent of use of e-resources by students;
6. Identify the major barriers that hinder students from using electronic library resources;
and
7. Suggest measures that enable students to make maximum use of electronic library resources.

1.5.2 Research Questions

The research was guided by the following research questions:

1. What electronic library resources does the Unisa Library offer to students?
2. What initiatives has the Unisa Library put into place to encourage student awareness and usage of electronic library resources?
3. Are students aware of the electronic library resources available to them and do they use these resources?
4. Are students competent in the use of electronic library resources?

5. What is the purpose and the extent of use of electronic library resources by students?
6. What are the main barriers that prevent students from accessing and using e-resources?
7. What measures can the Unisa Library put into place to encourage maximum use of electronic resources by students?

Table 2: Research questions, objectives and possible sources of data

Research Question	Objectives	Sources of Data
What electronic library resources does the Unisa Library offer to students?	To identify the types of electronic library resources available to students.	Questionnaires, Unisa Library Website
What initiatives has the Unisa Library put into place to encourage awareness and usage of electronic library resources by students?	To establish the initiatives available in the Unisa Library to encourage the use of electronic library resources by students.	Questionnaires, Unisa Library Website
Are students aware of the electronic library resources available to them and do they use these resources?	To determine whether students are aware of and to what extent they use electronic library resources.	Questionnaires
Are students competent in using electronic library resources?	To determine whether students are competent in using electronic library resources.	Questionnaires
What is the purpose and extent of use of electronic library resources by students?	To determine the purpose and extent of use of e-resources by students.	Questionnaires
What are the main barriers that prevent third-year students from accessing and using e-resources?	To identify the major barriers that hinder students from using e-resources.	Questionnaires
What measures can the Unisa Library put into place to encourage maximum use of electronic resources by students?	To suggest measures that enable students to make maximum use of electronic library resources.	Questionnaires

1.6 Justification/Significance of the Study

Although a significant number of studies has been done on the awareness and usage levels of electronic library resources by students in academic institutions, the studies that focus on open distance learning students, particularly third-year students, are quite minimal. Most of the published research in this area focuses on postgraduate or

undergraduate students in general. Results of studies focusing on all undergraduate students – that is first to third-year students – may be too broad to be generalised as the information needs of first-year and third-year students are different, as observed by Callinan (2005), who established that third-year students' usage of electronic library resources was more than double (56.5%) compared to that of first-year students (27%). The main reasons for this discrepancy was that most first-year students were either unaware of the electronic library resources; felt that there was no need to use these resources or encountered difficulties in using the resources.

He, Wu, Yue, Fu and Thien Vo (2012) established that the information searching skills and experience for undergraduate students, both with printed and digital information resources, increased along with their learning and training in colleges and universities. It is this observation that justifies why undergraduate students should be studied separately and according to their study levels. The study intends to analyse the variables contributing to the use and non-use of library e-resources at Unisa by third-year students in the School of Arts.

A search for a topic of this nature in the specified institution under the Unisa thesis and dissertations institutional repositories yielded a single related study that was conducted by Buchholz (2011). The study aimed at determining the provision of access to information in academic libraries in Southern Africa by using the case of Unisa and the University of Namibia. The purpose, objectives, methodology, population of this study differ from those of Buchholz's study.

As reflected in Table 1, the Unisa Library invests substantial amounts of money in subscription fees, maintenance, and human resources costs on e-resources (Okiki & Asiru 2011). Therefore, it is essential that the library realises the value of funds invested in these resources by having a high number of users utilising these resources (Knight 2013, Kumar & Reddy 2014, Svenningsen 1998).

Although some libraries only rely on vendor e-resources of user statistics to determine the level of usage of e-resources, a lot of inconsistencies with these reporting systems have been recorded in literature (Atakan et al. 2008; Shuling 2007). Pullinger (1999) also points out that, without analysing use and factors influencing use and non-use, user statistics may be misleading; hence the need to substantiate user statistics with research to determine the correct levels of use and the factors influencing them.

General statistics acquired from the Unisa Library on the use of e-resources across the entire University over a period of three years (2013, 2014 and 2015) show that usage of e-resources is generally low across most of the colleges, as reflected in Figures 1, 2 and 3. Only multi-disciplinary databases had high searches and download volumes. Although these figures show high levels of searches in the College of Human Sciences (CHS), which is the college where the School of Arts belongs, the full-text downloads over the three years range to approximately only one quota of the searches conducted. The reason for this discrepancy may be that after conducting searches, users may not be aware of how to conduct full-text downloads for the searched articles, or that they fail to acquire relevant articles for their information needs. This observation calls for an investigation to determine why some users only end with conducting searches, without actually downloading the full-text articles.

Surprisingly, some college databases such as the College of Law (Claw), College of Economic and Management Sciences (CEMS), and multidisciplinary databases recorded more downloads than searches in some of the years. This could be translated to the fact that users would be having the citations of the information resources needed in a specific database; so, instead of conducting an information search on a topic, they bypass that process and go straight to download articles by using the citation. These observations also call for separate studies in the two colleges.

It is the above discoveries that justify a study of this nature to be conducted at Unisa. This study will inform the Unisa Library on the levels of awareness and usage of the electronic library resources by Unisa third-year students in the School of Arts and, if the

findings show low levels of awareness and use, the study will recommend ways to improve awareness and usage of the resources, so that the library can realise the benefits of the cost of investing in the resources. Being the first study of this nature in the Unisa Library, the study will contribute a new body of knowledge for the Unisa Library and add to the available body of knowledge on usage and awareness of electronic library resources to the entire library and the Information Science profession.

Since the study will also include the views of the students, as library users, it will help the students to have a say in their electronic library resources needs and challenges faced. Anaraki and Babalhavaeji (2013) observe that user perspectives are important in developing an effective and efficient library collection. This, together with recommendations based on the findings of the study, will be communicated to the Unisa Library Directors, after which the Library may use it as a guide to address the students' needs and challenges in an improved and more informed way, thereby enabling better student access to the resources. Addressing the challenges that students face in accessing electronic library resources may, in turn, help students with accessing the needed information resources, thereby contributing to their academic and research needs.

This study, being the researcher's first major study, will help the researcher in growing her research career and improving her research and writing skills, which will help her in future studies and in writing and presenting conference papers and writing and publishing academic journal articles. Apart from that, the study will facilitate the researcher in attaining Master's Degree in Information Science and adding her name to the list of researchers, who have contributed knowledge to the Unisa Library and the library and information science profession as a whole.

The study will inform Unisa students and staff about the electronic library resources available for them in the Unisa Library. This study will also help researchers, who plan on conducting further research in this area of study. Furthermore, this research will identify gaps associated with this study area; hence helping other researchers with topics

that need further studies, as have already been identified above, e.g. an determining why some users only end up conducting searches without downloading the full-text articles; an investigation as to why most colleges at Unisa have low e-resources searches and downloads and an investigation as to why some colleges have more downloads than searches, etc.

1.7 Scope and limitations of the Study

The institution of study is the University of South Africa and the research subjects are third-year students in the School of Arts, enrolled in the year 2016. The researcher originally considered studying the usage of electronic library resources by third-year students in the College of Human Sciences. The College of Human Sciences at Unisa currently has six schools, which are further broken down into departments, ranging from three to seven per school. When realising that this study population would be unmanageable, the researcher, with the advice of her supervisors, decided to focus on a single school in the College of Human Sciences. The School of Arts was then selected, based on the fact that it is the researcher's school of study, which gives the researcher the advantage of familiarity with the School. The other reason for selecting the School of Arts was that it is the school with the highest number of departments among the six schools in the College of Human Sciences.

The seven departments under the School of Arts: are African Languages, Afrikaans and Theory of Literature, Arts History, Visual Arts and Musicology, Communication Science, Linguistics and Modern Languages and Department of Information Science. Only third-year students in these departments were in the study. Library staff at the University will also be included in the study, with the intention of collecting information on awareness and usage patterns, technologies and other activities that the Library has in place to encourage the use of e-resources.

The scope of the study was limited to the knowledge on awareness and usage of electronic resources by the specified user group. Due to the limitations of time and funds, both surveys were distributed online via email. The survey was sent to the students and

librarians by using their Unisa email addresses. This was considered a limitation, because students and librarians, who did not have access to their Unisa emails at the time of the study, were excluded from the study.

1.8 Definition of Terms

This section outlines the key concepts that are used in this study. These terms form the working definitions for the current study.

1.8.1 Awareness of electronic library resources

Vocabulary.com (2016) defines *awareness* as a state of having knowledge about something. When knowledge about that particular 'something' is missing and there is a need for it, then certain measures can be put in place to encourage the relevant audience to acquire the knowledge.

For library users to have knowledge of the availability of electronic library resources, an awareness has to exist. Ali (2005) defines *awareness of electronic library resources* as the "degree of user knowledge of the availability of the service and the extent made use of them". Anaraki and Babalhavaeji (2013) point out that awareness should not only be limited to library users but should also include the library staff so that they can pass on the knowledge to the library users. In the context of this study, the knowledge that is needed is the knowledge of the existence of electronic library resources by third-year students in the School of Arts at Unisa.

1.8.2 Use of electronic library resources

Mwirigi (2012) defines the *usage of electronic library resources* as "searching, browsing, examining, and visiting an e-resource and/or service by a user". Constable (2007), Dhanavandan, Mohammed Esmail and Nagarajan (2012) and Pullinger (1999) note that the use of electronic library resources is critical in the current era, as the amount of information available online is increasing daily, with some information sources only being available in electronic format. There are several factors that affect the use of electronic library resources, including the promoting the availability of e-resources; signaling the

availability of e-resources at the point of need; competing e-services offered; technical infrastructure, user authentication as well as training and support for information retrieval (Pullinger 1999).

1.8.3 Electronic resources

The term *electronic resources* is not used consistently: some may refer to them as *electronic information resources*, *electronic information services (EIS)* or *electronic library resources* or *e-resources* (Appleton 2006). For the purpose of this study, the terms *electronic library resources*, *electronic resources*, and *e-resources* shall be used.

According to the Library of Congress (2008), *electronic resources* can be defined as “work that is made available for access through the use of a computer”. Ukachi, Onuoha, and Nwachukwu (2014) support this definition by defining *electronic resources* as library resources that can only be accessed with the aid of computing devices such as laptops, tablets, smartphones, etc. Mamafha (2013) defines *electronic resources* as library resources that need special equipment and skill to be accessed. For one to access electronic resources, they can be either physically present in the library or they can be accessed remotely with the aid of a computer.

Within the context of this study, *electronic library resources* can be defined as library resources that are made available to library users through the use of computers or related technologies. According to Unisa (2016b), these resources include bibliographies, indexes, e-reference sources, full-text journals and books, working papers, statistical data sets, image databases, institutional repositories and theses, and dissertations.

1.8.4 Distance learning

Moore, as cited in Aramide (2010), defines *distance learning* as “a system that promotes the self-teaching-learning process with potentially greater geographic coverage than traditional face-to-face education”. In distance learning, learners are physically separated from their tutors and their institutions of instruction – what is termed “tyranny

of distance” in distance education literature – and they are brought together by technology (Burich 2004; Watson 2000). Contrary to the traditional face-to-face learning model, which requires learners to attend physical classes, distance learners rarely attend physical classes: they learn mostly independently and with the help of tutorial materials and other resources supporting their studies. As observed by Hermosa and Anday (2008), distance learning utilises a combination of print and non-print learning methods and may provisionally be supported by face-to-face tutorials or discussion groups. Distance learning has caused a revitalisation of librarians’ role from the traditional librarianship to distance librarianship (Watson 2000).

1.8.5 Access to information

RUSA (1999) defines *access to information* as the ability of a person with an information need to acquire information that can address the specified information need. Access to information goes beyond having the information presented to the person with the information need; the information must be presented in a format, medium, and language that the information seeker can comprehend before their information need can be satisfied.

Thanuskodi (2011) and Kumar (2009) note that most libraries in the 21st century are slowly moving from print to electronic library resources, where access to information is considered more important than owning it. However, access to information may be hindered by a number of factors, including geographical locations, lack of financial resources, political factors, such as censorship, lack of adequate technologies, poor information literacy and computer literacy skills.

1.8.6 Information literacy

The Association of College and Research Libraries (2016) and Ukachi (2015) define *information literacy* as a combination of skills needed to identify an information need, find the right information to address the information need and then analyse and utilise the information to fulfil the identified need. Kinengyere (2007) goes a step further by defining the information literate person in the context of the 21st century as a person with the

ability to “clearly define a subject under investigation, select appropriate terminology that expresses the concept under investigation, i.e. keywords; formulate a search strategy that takes into consideration different information sources and the various ways information is organised; analyse the data collected for value, relevancy, quality and suitability; and subsequently turn them into knowledge”.

Information literacy involves critical thinking skills and, according to George and Frank (2004), a critical thinker should be able to “ask questions, evaluate information, define research topics, weigh assumptions and opinions against facts, look for proof of a theory, identify critical thinking as a life-long learning experience, examine problems carefully, and reject information that is irrelevant”. Therefore, it is critical for learners in the 21st century to be equipped with these skills, which will enable them to sift for the right information for their needs, due to the information explosion which has mainly been caused by the development of ICTs.

Developments such as Web 2.0 tools have enabled anyone, who is computer literate and have access to the internet, to publish on the internet. Having said that, it is critical for information users to have information literacy skills to enable them to evaluate the authenticity of the information they find on the internet. Mwirigi (2012) adds that apart from information literacy, information users in the 21st century also need information technology skills, sometimes referred to as *digital literacy*, which is essentially the ability to use different technologies, e.g. computers, databases, applications etc., to locate and present information. Without information technology skills, information users will not be able to find the information stored in the different ICTs to address their information needs.

1.9 Research Methodology

Termed as the “research story” by Ngulube (2005), the research methodology section describes the research approach and design used, the target population, sampling method and data collection methods and tools used in the study. In other words, the research methodology gives a full description of exactly how the problem was investigated.

For this study, a quantitative research approach was followed and the descriptive study design was adopted. The population of the study was third-year students enrolled in the School of Arts (Unisa) in the year 2016. Librarians were also included in the study to determine the initiatives that have been put in place by the Unisa Library to encourage awareness and usage of e-resources by students and also to establish students' usage patterns of e-resources. Stratified random sampling was used in selecting the student sample and purposive sampling was used in selecting the librarian sample. Online questionnaires were used as the data collection instruments.

1.10 Ethical Considerations

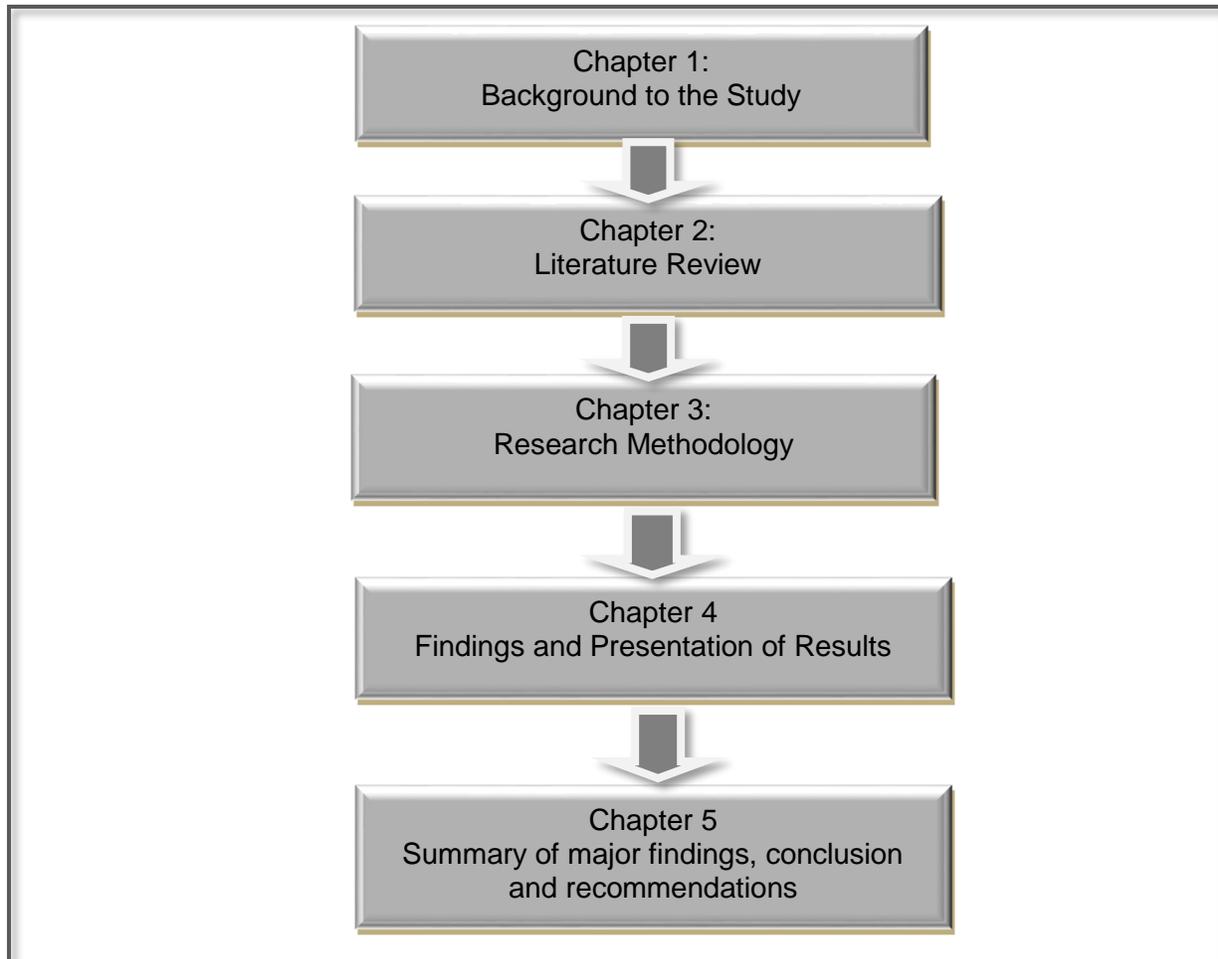
An application for ethical clearance was submitted, seeking permission to carry out a study with Unisa staff and students in compliance with the Unisa Research Policy on Ethics (2007). The application was submitted to the Unisa Research and Ethics committee and an Ethical Clearance was awarded.

Because the research involves human beings as the research subjects, ethical considerations, such as confidentiality, anonymity, and avoidance of deception, were considered when drafting the questionnaires. Participants completed informed consent forms and a statement detailing the purpose of the study and voluntary participation was sent to all participants, together with the informed consent form.

To ensure confidentiality of the respondents, both questionnaires used in the study included a statement advising respondents not to disclose their names, student/staff number or contact details when responding to the survey. In addition, the researcher made sure that there was no question requesting for the respondent's personal details on the online surveys. The ethical clearance certificate was also attached to the email sent to the respondents/participants. The researcher will ensure the final report is shared with the Unisa Library, the School of Arts and some of the respondents, who requested a copy of the report.

1.11 Structure of the study

The following diagram illustrates the structure of the study.



As indicated in the diagram, the research content of the study is designed to follow five chronological chapters, which are outlined below.

Chapter 1 provides an overview of the research, the aims, and objectives of the study, as well as the significance and justification of the study. The chapter also gives the context and the background to the study and a description of the terms that are used in the study.

Chapter 2 focuses on the existing secondary sources of literature on the topic. It forms a foundation on which the current research is based and aims to contribute to new knowledge. This chapter serves as a partial investigation into answers for the seven research questions, which are based on the research objectives.

Chapter 3 provides a description of the selected methods of conducting the research and the reasoning behind the selection of the sample and data collection tools.

Chapter 4 presents the findings and provides an interpretation of the findings. This chapter is instrumental in answering the research questions.

Chapter 5 provides the conclusion and proposed recommendations.

The chapters are structured in such a way that the reader can select only the chapters of interest and still gain an understanding of the study and what it aimed to achieve.

1.12 Chapter Summary

Chapter 1 introduces the research and gives a background of the study. The sections included in this chapter comprises conceptual setting, contextual setting, the problem statement, research aims and objectives, research questions, justification and significance of the study, scope and limitation of the study, definition of key terminology, ethical considerations and the structure of the study. Chapter 1 introduces the study as a whole and provides detail of the structure of the study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The subject of awareness and usage of e-resources in the academic environment is not a new area of study. Several authors worldwide have conducted studies in this area by using different methodologies and have published their findings. The studies were guided by different objectives and were set in different environments. This chapter reviews various published studies on e-resources usage by students in higher learning institutions. The literature reviewed was in line with the objectives of this study, which made it possible to place the study in the relevant context. Before delving into the relevant literature, the first section of this chapter explains the importance of the literature review, so that readers of this thesis can understand why this section is included in the study.

The literature reviewed centred on:

- Electronic library services and resources for distance learners;
- Value of electronic resources in learning;
- Measures implemented by academic libraries to encourage awareness and usage of electronic library resources;
- Purpose of electronic resources use in academic institutions;
- Awareness and competence levels in the use of e-resources by university students;
- Barriers that hinder the use of e-resources in academic institutions; and
- Recommended measures to influence awareness and usage of electronic resources in academic institutions.

2.2 Importance of Literature Review

CQ University Library (2015) defines a *literature review* as an evaluation of previous literature related to your selected area of study. A literature review goes beyond just searching for related information, in that it summarises, evaluates and clarifies this literature.

It is difficult for a researcher to conduct a study without familiarising themselves with the thoughts and findings of other authors and scholars in the specified subject area (Mavodza 2010). A literature review acts as a guide to the researcher, particularly at the beginning of a study, when the researcher's thoughts may be highly divergent. The literature review provides a clear perspective and directs or focuses the researcher's thoughts.

Reviewing literature by other authors gives the researcher an idea of the best methodology to adopt for a particular type of study and it also gives the author a broader perspective of a particular subject, which makes it possible to identify gaps in a topic. More-so, a literature review helps the researcher in identifying research that has already been done in a particular field and to avoid re-invention the wheel, but rather to promote the addition of new knowledge in a study area.

2.3 Electronic Library Services and Resources for Distance Learners

Brindley, Walti, and Zawacki-richter (2004) classify library services in academic institutions as learner support services, which aligns well with Unisa's principle of the provision of relevant learner support to the institutions' learners. Academic libraries in the 21st century are providing similar services for both full-time and distance learners; hence the call by some authors for the elimination of the phrase "distance learner's library services" in favour of "academic library services". – There is no clear demarcation between library services for full-time and distance learners: both learners can benefit equally from the same services (Burich 2004; Nicholas & Tomeo 2005; Graham 2009).

Okoni (2013) and Watson (2000) note that access to information in academic institutions is critical because it connects users with the needed information. Technological changes have had a major effect on the provision of library services. In traditional library settings, users had to visit the library physically to access information resources to fulfil their information needs, whereas in contemporary society, users' access library resources remotely by using technologies available to them.

Electronic librarianship services mostly used in academic libraries include remote access to online databases, the online public access catalogue (OPAC), virtual reference services, online tutorials, e-reserves, document delivery, web-based portals and gateways, streaming video online, library catalogues, remote database access, e-reserves, e-document delivery services, e-references, interlibrary loan services, electronic bulletin boards (BBSs), instruction and embedding of library resources with course management software (Hermosa & Anday 2008; Nicholas & Tomeo 2005; Oyewo & Bello 2014; Snyder; Carter & Hostetler 2008).

A study conducted by Sivakumaren, Swaminathan, Jeyaprakash, and Geetha (2012) revealed that online database services and inter-library loan services were the most frequently used services by the research scholars taking part in their study. As an additional service to ensure that academic libraries serve geographically dispersed users better, Watson (2000) recommend distance learning institutions entering into agreements with provider libraries that can offer library services located in areas most convenient to the users.

The major types of electronic library resources available in academic libraries include e-books, e-journals, e-theses and dissertations, e-magazines, e-newspapers, e-research reports, e-bibliographic databases, CD-ROMs, World Wide Web (WWW), conference proceedings etc. (Amjad, Ahmed & Naeem 2013; Aramide 2010; Bhatia 2011; Burich 2004; Damilola 2013; Egberongbe 2011; Lawrence 2012; Oyewo & Bello 2014).

2.4 Value of Electronic Resources in Learning

The 21st century has seen almost all sectors of society adopting e-resources for improvement of operations and procedures and the higher education sector is no exception. Academic libraries worldwide appreciate the value of e-resources in learning by increasing their e-resources budget allocation and creating library consortiums. These consortiums enable several academic libraries (consortium members) to acquire e-resources at a shared cost, thereby making it possible for these libraries to provide a wide range of quality library resources at a lower cost than they would have paid through

individual subscriptions (Egberongbe 2011; Kinengyere 2007; Hermosa & Anday 2008; Mayende & Obura 2013; Mercedes 2002).

The results of the JISC User Behaviour Monitoring and Evaluation Framework research reflect that electronic library resources play a critical role in learning. The notable benefits of electronic library resources noted in this framework include the capability of the resources in providing up-to-date literature to the academic teaching and learning communities and their ability to offer a “regulated platform from which to extract information available on the internet” (Banwell, Ray, Coulson, Urquhart, Lonsdale, Armstrong, Thomas, Spink, Yeoman, Fenton & Rowley (2004). Electronic resources connect academic communities and scholars and they have an equally important value to both full-time and distant learners (Anaraki & Babalhavaeji 2013; Aramide 2010).

Several authors have reported on e-resources quantities and usage has increased significantly and, in some institutions, print collections have actually been replaced by e-resources (Amjad, Ahmed & Naeem 2013; Bin & Miao 2005; Chirra & Madhusudhan 2009; Kennedy 2011; Kumar 2009). A study by Appleton (2006) determined that students had adopted the use of e-resources and were comfortable with using the resources for their research, without any guidance, instead of print resources. Some 79,2% of users, who took part in the study by Bansode (2013), indicated that they preferred using electronic resources because e-resources allowed them to search for the needed information – a functionality that is not possible with print resources. A study on electronic information resources utilisation by students in Mbarara University Library in Uganda established that, although students have problems in accessing electronic resources, 60,9% of the sampled students agreed that electronic resources enabled them to find the information they needed easily, which suggested students having a positive attitude towards e-resources (Gakibayo & Okello-Obura 2013). The majority of respondents (51,2%) in a study on the use of electronic resources conducted by Kelley and Orr (2003) at the University of Maryland University College in the United States of America revealed that, among the nine services offered by the library to users, “off-

campus access to full-text materials in the library's databases” was the most useful service followed by off-campus access to the library's online library catalogue”.

Several authors have reported on e-resources increasing the availability of quality and quantity of information sources that can be accessed instantly by different users (Anaraki & Babalhavaeji 2013; Amjad et al. 2013; Appleton 2006; Bansode 2013; Bhatia 2011; Kinengyere 2007). Electronic resources are more easily accessible in remote areas; solve storage problems; control the flood of information and provide learners with access to a wide range of educational resources, irrespective of time, space and location (Damilola 2013; Mwirigi 2012). Students who took part in a study by Appleton (2006) on perceptions of electronic library resources within the UK further education sector, reported that access to a wider pool of literature through electronic library resources had improved their critical, analytical and writing skills. However, some students in this study felt the need for more guidance from tutors through hand-outs and textbooks, instead of relying just on e-resources. Tutors in the same study agreed that, although it was difficult to measure the impact of electronic library resources on student learning activities, the resources had changed the students' learning experience and had contributed to independent learning. E-resources also assist users in obtaining the correct references for the sources that they cite in their research, with some databases allowing users to directly export citations of the literature they would be using for their studies, which is a major advantage compared to manual citation (Bansode 2013).

Nwizu, as cited in Aramide (2010), notes that electronic resources have broken the barriers of time, distance, and location that impede education. E-resources also allow students easy access to databases, distance education course materials, simulation and self-assessment tests, thereby increasing the rate of access by distance learners. According to George and Frank (2003), electronic resources are important to distance learners, due to their flexibility, comprehensiveness, efficiency, and effectiveness in information service delivery to the learners. Adote, as cited in Damilola (2013), notes that the availability of electronic resources in distance learning enables learners to search for relevant information resources electronically, from anywhere, 24/7 without the

need to visit the library physically. This is a significant advantage in distance learning institutions, as learners are dispersed geographically and learning is done through the tutorial material, study guides and supporting materials. Remote access does not only help the library users but also saves the library in terms of the space and costs associated with print resources.

Although a number of studies have proved that e-resources have a far greater value than print resources, some authors and users place greater value on printed resources, citing problems of accessibility of e-resources and the lack of adequate technologies and skill to enable them to access the resources (Aramide 2010; Khan et al. 2014; Mawindo & Hoskins 2008).

2.5 Purpose of Electronic Resource Use in Academic Institutions

E-resources are used in every sector of society for different purposes and, based on the foregoing discussion, it is important that users in academic institutions also use e-resources, given the value attached to these resources in learning. A study that intended to assess library support services for distance learners from the faculty staff point of view conducted at Texas Tech University in the United States of America revealed that, for the successful completion of assignments, faculty expected learners to use e-resources (Hufford 2004). Studies conducted worldwide revealed that, in academic institutions, e-resources are used mainly for learning, education, research, updating knowledge, completing assignments, reading articles, writing research proposals, preparing for examinations, discussion, faster information retrieval and instruction, delivery to support teaching, career development and growth, etc. (Amjad, Ahmed & Naeem 2013; Aramide 2010; Bhatia 2011; Dhanavandan; Egberongbe 2011; Mohammed Esmail & Nagarajan 2012).

The JISC User Behaviour Monitoring and Evaluation Framework established that undergraduate students used electronic library resources mostly for academic purposes connected with assessment and leisure (Banwell et al. 2004). A study conducted by Chirra and Madhusudhan (2009) on use of electronic journals by doctoral research

scholars of Goa University in India, established that 98% of the respondents used e-resources for research work; 69% for current awareness; 65% for finding relevant information in their area of specialisation and 48% for study. After discussing a topic with the lecturers, students turn to online resources for information to support their research. A study on the use of electronic resources in ICAR Institutions in Tamil Nadu established that most of the respondents (42.37%) used e-resources for research, 13.55% used e-resources for publishing articles and books; 13.55% used e-resources for keeping up-to-date in a subject area, 10.16% used e-resources for finding relevant information in the specific area and 8.47% used e-resources for accessing current information (Lawrence & Raja 2012).

George and Frank (2003) point out that electronic resources enable distance learners to access to information that supplements the reading lists they get from their tutors. The study on the usage of electronic library resources in open distance learning by Damilola (2013) revealed that the majority of the respondents (30.4%) used the resources for knowledge acquisition and learning purposes, followed by 29.2%, who indicated that they used the resources for information exchange.

2.6 Competency Levels of University Students in Use of Electronic Resources

The major competencies needed to access and use electronic library resources are computing/digital/technical and information literacy competencies (George & Frank 2004; Sujatha & Murthy 2010). Khan and Waheed (2015) define *digital literacy* as knowledge and understanding of digital media that enables one to function effectively with digital media in the digital environment. A digitally literate person is able to understand and interpret digital media, such as text, sound, and images, and reproduce the data in digital environments.

A study by Obasuyi and Usifoh (2013) established that, while both computer and information literacy have an effect on the use of e-resources, computer literacy has more influence. Therefore, someone who lacks information literacy but is computer literate is more likely to use e-resources, compared to people who are information literate but lack

computer skills. A study conducted by Sujatha and Murthy (2010) in fisheries sciences institutions in South India revealed that the majority (67.46%) of the respondents had “average” computer competence skills, while 29.25% were “above average” and 3.28% were “below average”.

Digital literacy alone, without information literacy, does not lead to high usage of e-resources, as confirmed by the results of a study by Crawford, Vicente and Clink (2004), who established that the use of electronic library resources by Computer Studies students at Glasgow Caledonian University in the United Kingdom was very low – although they majored in Information Technology and, therefore, would be expected to have high digital literacy skills. A similar study by Ming-der and Ssu-tsen (2012) at a research-oriented university in Taiwan, established that, although Computer Science students spent a great deal of time on the internet, their use of electronic resources was quite low.

The study by Ming-der and Ssu-tsen (2012) revealed that not all undergraduate students possessed equivalent computer competencies in the use of library electronic resources. The lowest levels of competence were recorded in the current awareness category and e-news services, which were attributed to the fact that the study population was undergraduate students who did not have a high need of research orientation. In the study by Aramide (2010) at the National Open University of Nigeria and Ibadan Study Centre, competence levels were high in the use of resources such as audiotapes, videotapes, DVDs, pictures, posters, television, radio, telephone and printers, while they were medium and low in the use of multimedia projectors, computers, electronic databases, digital cameras, the internet, email, and CD-ROMS.

2.7 Barriers to the Use of E-Resources in Academic Institutions

Several studies, some which are cited in this study, conducted worldwide relating to the awareness and usage of e-resources revealed a number of barriers that hinder learners from fully using electronic library resources. It is important to note that, although the barriers may be similar in the various studies, more challenges are observed in

developing countries than in developed countries, mainly due to the unavailability or shortage of technologies needed to access e-resources. Although technologies have increased the availability of information, it is not all countries and communities that are able to access the ICTs that are needed for one to access online information.

Technology has resulted in what is termed the *digital divide*, which refers to the gap between countries that can access and use ICTs and those that cannot access and use these technologies because of their poor economies (Watson 2000). The notable barriers recorded in literature range from lack of awareness, poor information, and digital literacy skills, negative attitude of students towards electronic resources, lack/poor internet connectivity, poor ICT Infrastructure, information overload, licence restrictions on the internet amongst many others. Some of the major barriers that affect the academic community are explained in the sections below.

2.7.1 Lack of awareness of electronic library resources

A number of studies, including a study conducted by Callinan (2005) at University College Dublin in Ireland, have revealed that library users may fail to utilise the electronic library resources available to them due to lack of awareness of the existence of the resources. In this way, awareness is the first step before utilisation: without awareness, utilisation will not be realised. Some 58% of the respondents, who participated in the OCLC research project, which investigated library resource use, perceptions and impressions of libraries and people's preferences for using information discovery tools, were not sure if their libraries provided access to electronic databases (De Rosa et al. 2005). It is, therefore, critical that the library establishes measures to inform users of the availability of e-resources.

2.7.2 Poor information literacy and digital literacy skills

In order to be able to utilise e-resources fully, a user needs to be "technically proficient" – i.e. the user must have basic ICT and information literacy skills. Levey as cited in Gakibayo, Ikoja-Odongo, and Okello-Obura (2013) notes that "information access is not necessarily the problem but careful utilization is". According to Anaraki and Babalhavaeji

(2013), the continuous development of technologies has caused an influx of electronic information in libraries and on the internet; hence the need for training on the best ways of accessing the needed information. Information literacy training gives users the ability to identify an information need and to locate, evaluate and use the information effectively (George & Frank 2004).

Ali (2005) observes that search strategies skills are one of the most difficult aspects of electronic searching. Formulation of search strategies forms the major part of information literacy training. If users do not possess the adequate skills needed to search for the relevant information resources to satisfy their information needs, they would find it difficult – if not impossible – to access and retrieve the relevant information. Because electronic library resources are available 24/7 in the online environment, it is has been observed that some users start accessing the resources without the proper knowledge and skills of accessing the relevant information (Anaraki & Babalhavaeji 2013).

A study by Obasuyi and Usifoh (2013) Universities in South-South in Nigeria, established that awareness of electronic library resources was low, mainly because of the lack of computer and internet literacy skills. A similar study at the Mbarara University in Uganda also identified the lack of computer skills and inadequate information literacy skills as the major barriers hindering students from using electronic library resources (Gakibayo, Ikoja-Odongo & Okello-Obura 2013).

2.7.3 Lack of standard interfaces on e-resources portals

While a number of studies have proved that building the information literacy skills of users influences their use of e-resources in a positive way, some users have cited the lack of standard interfaces on e-resources portals as a major challenge that may influence the use of the resources (George & Frank 2004). Shuling (2007) notes that the search skills to conduct searches on different databases may be similar, but that some features may vary from one database to the next. Some of the librarians participating in a study by Ollé and Borrego (2010) at the Catalan academic libraries, felt that some of the library database tools were not quite user friendly for the intended users, an aspect that may obstruct access to information, which forced some users to use search engines,

such as Google, which were observed as having more friendly interfaces, features and tools. Martin (2008) supports this observation by pointing out that academic library systems are more complex to use than Web search engines. Findings of a study on factors affecting undergraduates' selection of online library resources in academic tasks at a State University in the United States of America, by Joo and Choi (2015) revealed that familiarity with a resource is a major determinant to use of resources by undergraduate students as evidenced by the preference of search engines as compared to library resources. To get students to use library resources more, the study recommended that library interfaces be designed in a way that resembles popular Web system interfaces, such as Google, rather than complicate the interface.

2.7.4 Poor ICT infrastructure

Contrary to traditional print sources, which can be accessed and used without the aid of technologies, this is not possible with electronic library resources. As indicated in the definition of electronic library resources, electronic library resources are library resources that are accessed through the aid of computing device such as laptops, tablets smartphones (Ukachi, Onuoha & Nwachukwu 2014). Without a computing device and supporting technologies, such as internet connectivity, users will not be able to access the information resources. A number of authors have highlighted the lack of adequate technologies as one of the major barriers that discourage users from using electronic library resources (Ali 2005; Dhanavandan, Mohammed Esmail & Nagarajan 2012; Gakibayo, Ikoja-Odongo & Okello-Obura 2013; Watson 2000).

Guri-Rosenbrit (2004) argues that, although ICTs have brought numerous advantages in distance learning, many of the distance learning institutions – particularly in developing countries – simply do not have adequate infrastructures, conditions and human capital to utilise these technologies fully. A study done by Egberongbe (2011) on the use and impact of e-resources at the University of Lagos in Nigeria, revealed that 55.4% of the academic staff and 54.3% of research scholars were not satisfied with their library and university ICT infrastructures, which was a major hindrance to the use of electronic library resources. Some 95.8% of the students in a study by Mawindo and Hoskins (2008) on

the use of print and e-resources by students at the University of Malawi College of Medicine, indicated that limited access to computer terminals was the major barrier that prevented them from using the electronic library resources.

This calls for a complete revamp of the conditions, infrastructure and human capital for the full functionality of these technologies to be appreciated – something that requires large financial investments, which most of the academic institutions in the developing countries do not have, due to the poor economic state of their countries. This is complemented by results of a study conducted by Damilola on the use of electronic library resources in open distance learning in Nigeria, which revealed poor electricity supply and poor internet connectivity as two of the major barriers that discouraged respondents from using electronic resources (Damilola 2013).

While most academic institutions are making efforts to increase accessibility of technologies that enable their learners to access electronic library resources, the principle of sameness and equality to all students that guides most distance learning institutions may hinder them from offering highly sophisticated technologies that may be used by only a few – i.e. those who do have physical access to the institutions and their support services sections such as the library. In order to avoid a situation where students without easy access to the institutions may feel are being treated unfairly, the distance learning institutions need to be extra careful when considering these ICT developments (Guri-Rosenbrit 2004).

2.7.5 Poor internet connectivity

Poor internet connectivity has been ranked as one of the major challenges that prevent users from using electronic library resources. Although there are some electronic library resources that are offline, e.g. those that are accessible on CD-ROM, hard drives etc., a notable number of these resources are available online and need fast internet connectivity to download full-text articles. Fast and affordable internet connectivity can prove to be a challenge that discourages users from using electronic online resources (Thanuskodi 2011).

The majority (68.56%) of participants in a study on the use and impact of electronic journals on the users of the University of Pune, India highlighted poor internet connectivity as a major huddle that prevented them from using electronic library resources (Bansode 2013). A study on the use of electronic library resources at Krishnasamy College of Engineering and Technology Library in India established that the amount of time it took to download articles and slow internet connectivity were the major barriers that discouraged learners from using electronic library resources (Dhanavandan et al. 2012). Similarly, a study conducted by Kumar and Reddy (2014) on use of E-Journals by Research Scholars in University Libraries in Andhra Pradesh, ranked poor internet connectivity as the major barrier that prevented users from accessing and using e-resources

2.7.6 Information overload

The pace at which information is currently being created and duplicated has caused what is termed *information overload* (Sujatha and Murthy 2010). In addition to individual library subscriptions, most academic libraries worldwide have entered into library consortiums, which allows their users to access even more information sources. Added to information accessible through library subscription are also multitudes of information sources available through open access initiatives, such as the Directory of Open Access Journals (DOAJ) and those that are available on the internet and can be accessed by using search engines. This causes a dilemma to users in deciding on the best information source to use, which makes some users to shy away from using e-resources.

Although some databases provide relevant ranking capabilities, this is not common to all databases and search engines. Some 66% of the users from Tehran University in Iran, one of the universities studied by Anaraki and Babalhavaeji (2013), noted that information overload was one of the major challenges they faced in using e-resources. In this way, it has become a requirement, rather than a choice, for academic information users to have information literacy skills to help them identify and evaluate information found through the various platforms (Sujatha & Murthy 2010).

As indicated in the previous paragraphs, several authors view information overload as a barrier that hinders academic information users from using e-resources. However, Hermosa and Anday (2008), and Oyedapo and Ojo (2013) argue otherwise, pointing out that these sources sometimes come with links to library catalogues, licensed journal databases, electronic book collections, selected internet resources, electronic course reserves and tutorials, and forums for communication and interaction with librarians, which direct users to the right information, thereby rescuing them from information overload.

2.7.7 Over-reliance on resources that are freely available on the internet

Modern society has been affected by what is termed the “Google Effect”, also called *digital amnesia*, which implies that we tend to forget information easily because we know that the information is easily accessible on the internet (Sparrow, Liu & Wegner 2011). Everyone in today’s society, even learners, have been affected by digital amnesia and, when this happens, the first point of call will be searching for the information through search engines such as Google, Yahoo, Bing, etc. Joo and Choi (2015) termed students of today, particularly undergraduates, as the “Google generation”, because of their heavy reliance on search engines, Google being the most common search engine.

According to Banwell et al. (2004), some students have even termed internet search engines like Google as “A one-stop Shop”, because they can find anything that they need without much difficulty. Martin (2008) argues that the fact that some electronic library resources are available online may cause students to fail to differentiate between internet resources and library resources; hence the reason why they are comfortable with using search engines for academic tasks. This is confirmed by the results of a study by Okello-Obura (2010) on LIS postgraduate students’ problems at Makerere University, Uganda faces in accessing e-resources. The study revealed that 48% of the respondents did not know the difference between refereed and non-refereed journals, thereby failing to discriminate between authentic and non-authentic information sources. This might be debatable, given the fact that students’ feedback in most studies established valid

reasons for them preferring the use of search engines, compared to academic library resources, which would point to a clear demarcation between the two in the students' understanding.

The results of the JISC User Behaviour Monitoring and Evaluation Framework study, which investigated and profiled the use of electronic information services within higher and further education in the United Kingdom, revealed that internet search engines use was significantly higher than that of any other electronic library resources (Bansode 2013; Banwell et al. 2004). The fact that any information is accessible easily through internet search engines has caused students to favour searching for information through internet search engines rather than searching through databases (Kelley & Orr 2003).

An international study on perceptions of libraries and information resources conducted by the Online Computer Library Center (OCLC) in 2005 reported that, despite their geographical locations, more than 60% of the respondents were extremely familiar, very familiar or somewhat familiar with search engines. Eighty-four percent of the students, who took part in the study, started their information searches on the internet, as they trust more in these search engines and rated the quality and quantity of retrieved information higher than that of libraries (De Rosa et al. 2005). When asked how they evaluated the authenticity of the information that they found on the open web, the respondents said they used common sense/personal knowledge.

A study by Mawindo and Hoskins (2008) on the use of print and electronic resources by students at the University of Malawi College of Medicine established that 98.5% of the respondents used search engines frequently to access electronic resources, as compared to only 23.1% who used the library website to access electronic resources. A similar study by Gakibayo, Ikoja-Odongo and Okello-Obura (2013) at the Mbarara University in Uganda revealed that the number of students who used search engines was almost double (63%) compared that of those using e-journals, e-books, and CD ROMs. Seventy-eight percent of the undergraduate students participating in the study by Kelley and Orr (2003), entitled "Trends in distant student use of electronic resources",

indicated that they used information resources available on the web, as compared to 44.5% who used library databases. A similar study by Callinan (2005) entitled “Information-seeking behaviour of undergraduate biology students” at the University College Dublin, Ireland established that at least three quarters of first-year biology students and over 90% of final year students relied more heavily on information found on the internet than on information in scholarly databases for completion of academic assignments.

As reflected in these studies and many others, over-reliance on internet search engines is a major influence on students’ non-use of electronic library resources. This poses a challenge in the academic setting, where credibility and accuracy of sources is a major requirement for academic writings (Joo & Choi 2015). Therefore, it is critical that students be made aware of techniques needed to evaluate authenticity and credibility of information that is freely available on the internet (Appleton 2006).

2.7.8 Preference of print resources over electronic resources

There are circumstances in life where people resist change and students are no exception (Dembo & Seli 2004). Although libraries are increasing their efforts to ensure increased volumes of e-resources, some students still prefer using print instead of e-resources.

Print resources have been available for so many years and some users feel they still need to rely heavily on them, without considering the option of electronic resources. Some students may choose to continue using print instead of e-resources because of accessibility issues, such as lack of adequate technologies; poor information literacy skills; poor internet connectivity; issues of usernames and passwords; doubting the authenticity of information available in electronic format; not being satisfied with the quality of electronic resources, particularly the graphics; lack of printing facilities, etc. (Ali 2005; Mawindo & Hoskins 2008; Shuling 2007; Tenopir 2003). However, Xianjin, Zhang, Yan (2014) argue that preference between electronic and print resources is determined by the format to which students are first exposed, Those who are first exposed to print

resources will prefer using print as compared to electronic resources and, similarly, those who are first exposed to electronic resources will prefer these resources.

However, several studies – such as those of Tahir et al. 2010; Sohail & Ahmad 2011; Garg & Tamrakar 2014 – reveal that there is no clear demarcation between preferences for print versus electronic resources, as they believe the sources complement one another, although each of the two has its own advantages (Ani 2013). Instead of maintaining one type of collection, i.e. electronic or print, libraries are maintaining hybrid collections.

A study by Khan et al. (2014), which surveyed students' utilisation of resources, services, and facilities of the Central Library of the University of Peshawar in Pakistan, established that students' use of electronic resources was very low, with usage of online databases and internet electronic resources being ranked 5th and 6th among the most popular used library services, while borrowing of books was ranked third. The low usage of electronic resources was mostly attributed to the fact that the library lacked adequate electronic library resources, as indicated by 83.5% of the respondents. A similar study at University of Malawi College of Medicine also established that print resources were used more than electronic resources, which was also attributed to the lack of adequate technologies and students' low levels of computer and information literacy skills (Mawindo & Hoskins 2008). A study conducted by Knight (2013) at the Northern Caribbean University in Jamaica revealed that, despite the efforts of the library to promote the usage of electronic resources, library users still maintained a usage rate of 100% on print resources over a period of three specified academic years (2008/2009 and 2009/2010). The same study reflected a decline in e-book usage over the three academic years and this was attributed to the fact that the books were outdated, as new editions of the books had not been acquired.

Respondents in a study conducted by Nwagwu and Okafor (2014) to examine the diffusion of e-books among postgraduate students in arts and technology faculties of the University of Ibadan, Nigeria described e-books as a necessity, due to the shortages of

hard copy books. However, access to these books was restricted because of poor internet connectivity; unstable power supply; the difficulty of scrolling up and down to view the entire content of the book; and unavailability of all chapters of the e-books online. These constraints were what caused respondents to prefer hard copies of books instead of e-books.

2.7.9 Academic staff discouraging the use of e-resources

Although several studies have proved that the availability of electronic information resources has more advantages in learning – such as easy access to information and improvement of the quality and quantity of research – some academic staff feel that these resources have caused much damage to learning and, therefore, they discourage the use of these resources in favour of print resources. The major reasons cited by lecturers for recommending students to use print resources are that they believe e-resources have caused a decline of critical thinking capabilities in learning, as information needed is readily available, just a mouse click away; increase in plagiarism; poor information evaluation skills; unawareness of currency and relevancy of information sources and a decline in field research compared to desktop research (Appleton 2006; Browne, Freeman & Williamson 2000 ; Kelley & Orr 2003).

Figure 4 reflects some of the difficulties academic staff encounters with students, due to the excessive availability of electronic library resources versus poor information evaluation skills, and their discouragement of the use of the resources in academic assignments.

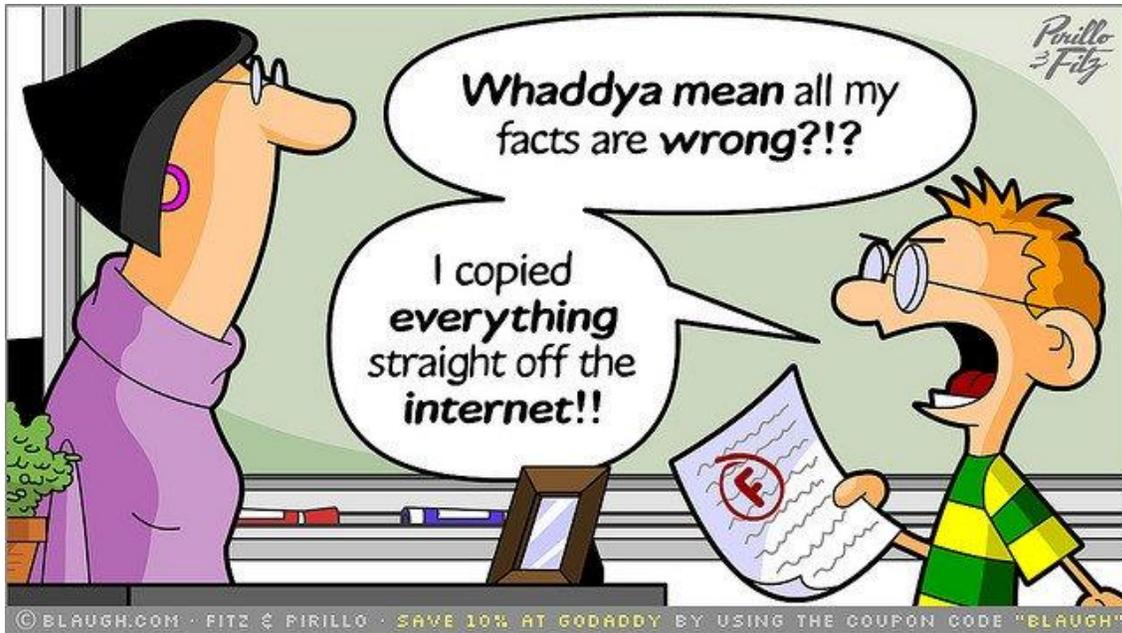


Figure 4: Difficulties caused by the high availability of electronic information

(Using Technology Better 2016)

A study by Egberongbe (2011) on the use of e-resources at the University of Lagos, Nigeria, showed that 60% of the 112 academic staff members felt print resources had a far greater value than electronic library resources. A similar study by Rehman and Ramzy (2004) at the Health Sciences Center of the Kuwait University also indicated that 20.2% of faculty was satisfied with print resources and, hence, had no need for electronic resources. This resulted in a tug of war with the library and academic staff, with the library pushing for the maximum use of e-resources, so as to realise the cost of investing in the resources, while academic staff discouraging the maximum use of the resources due to the reasons cited above and research showing that learners rely heavily on information resources recommended by their tutors (Callinan 2005).

The foregoing research findings call for proper collaboration procedures between the library and the academic staff, with both of them realising that they have a role to play in building students' information literacy skills, in order to ensure maximum and proper usage of electronic library resources (Callinan 2005).

2.7.10 User authentication

Access to electronic library resources may be restricted by license agreements between the subscribing institutions and the publishers and, therefore, the use of these resources is controlled by usernames and passwords. Without a username and password, a user would not be able to access some of the e-resources, particularly those that are available via subscription. Berzins and Hudson (2011) and Pullinger (1999) have cited problems with setting up and remembering usernames and passwords as one of the major challenges that hinder users from using electronic library resources.

2.8 Influencing Awareness and Usage of Electronic Resources in Academic Institutions

The richest qualities of electronic library resources are not beneficial to the users unless they are aware of their availability and know how to use them (Ming 2000). Several authors have reported low levels of awareness of the availability of library resources as one of the major barriers that influence the use of electronic library resources.

A study by Damilola on the use of electronic resources by distance students in Nigeria established that usage was very low, with 56.6% of the respondents indicating that they were not aware of the availability of these resources. The low levels of awareness were attributed to the unavailability of the resources in most centres (Damilola 2013). A similar study conducted by Kelley and Orr (2003) at the University of Maryland University College (UMUC) in the United States of America, revealed low levels of awareness of availability of e-resources in distance learning undergraduate students, which was attributed to the fact that the students were widely dispersed and, therefore, their knowledge of library services was limited. Kennedy (2011) observes that the traditional marketing techniques such as placing heavily used reference sources at the reference desk do not work well with electronic resources because most of the library patrons barely have physical access to the library, which is also true for distance learning users.

Having realised students' low levels of awareness of electronic library resources, previous studies have put forward recommendations on measures that libraries should put into place to ensure awareness and maximum usage of electronic library resources.

It is important to note that the recommendations put forward may appear similar, despite the geographical location of the institutions studied. However, recommendations for institutions in developed countries may be somewhat different from those in developing countries. The main recommendations extracted from the literature reviewed are as presented below.

2.8.1 Measures to influence awareness

Nicholas and Tomeo (2005) note that providing e-resources and services to users, without communicating to them, is not enough: these resources have to be publicised in a language and in a media that the intended user can understand. Chirra and Madhusudhan (2009) state that awareness is crucial for high usage of electronic library resources.

Kennedy (2011) observes that awareness is created through marketing and, therefore, recommends that libraries have a marketing plan, supported by a marketing budget. In addition to a financial budget, Zabed Ahmed (2013) recommends that institutions also make provisions for time and human resources to ensure that effective marketing strategies are developed and implemented. In their study on use of electronic resources by the faculty members in diverse public universities in Bangladesh, they established that nine of the 24 institutions that took part in the study failed to report on the availability of a marketing budget, which was a major concern for the author, as it is considered standard for a marketing plan to have a budget.

To increase awareness of the availability of electronic resources, previous studies provide several recommendations. Sixty-three percent of distant undergraduate students who took part in a study by Kelley and Orr (2003) on the use of electronic resources at the University of Maryland University College felt the library website was the most effective way of reaching students. Therefore, an “off-campus gateway” that responds to the needs of the users in open distant learning institutions, should be considered an important feature on library websites (Nicholas and Tomeo 2005). Several other studies have supported this view describing the library website as an important propaganda and

service window of the library that should stay current and be easily accessible (Shuling 2007; Thanuskodi 2011).

Ali (2005) recommends the use of bulletin boards for posting announcements about both old and new electronic library resources available in the library. A literature review study conducted by Kennedy (2011) reviewed 24 documents with the intention of determining the techniques that libraries had in place to market e-resources. The study revealed that in all types of libraries flyers/brochures were the most frequently used way to market electronic library resources, followed by e-communications and training, with the least frequently used technique being human interaction. Banwell et al. (2004); Mayende and Obura (2013) and Okello-Obura (2010) propose the use of mobile technologies, such as Short Message Service (SMS), as a better platform to market electronic resources, as it was observed that numerous learners used this service, compared to email. A study on electronic media usage patterns of Unisa Communication Science students revealed that 76.7% of the students sampled owned cell phones and 74.4% of them used the cell phones on a daily basis, which makes SMS an ideal service for marketing e-resources (Pitout 2005).

Callinan (2005) recommends that students be given orientations of subject specific online resources when they enrol for their first year, thereby creating awareness of the resources available to them. However, Colvin and Keene (2004) argue that introducing students to electronic library resources at enrolment may not be effective, as this period is usually full of other academic and social activities. Also, first-year students are highly unexpected to use e-resources in their first year: they will be relying heavily on study notes and recommended books from their lecturers.

A study by Chirra and Madhusudhan (2009) on use of electronic journals by doctoral research scholars of Goa University in India, revealed that 31% of the students participating in their study had been informed on the availability of electronic resources by their professors; 56% by co-research scholars; 25% through the university website; 33% through the library website and 60% through various advertisements put in place

by the library. This proves that publicising electronic resources has a positive effect on awareness.

2.8.2 Measures to influence use

Awareness and accessibility do not necessarily transform to use, but they are a means to use. To ensure the use of electronic library resources, academic libraries have to put various measures into place (Kinengyere 2007). Obasuyi and Usifoh (2013) note that the use of the library services is heavily influenced by the users' awareness and relevance of the service. – If users feel a service is not relevant to their needs, use will not take place.

A study by Joo and Choi (2015) on factors affecting undergraduates' selection of online library resources in academic tasks, established a number of factors that positively influenced the use of electronic library resources by undergraduate students. The main factors identified by this study are usefulness and ease-of-use; credibility, format, accessibility, currency, and coverage. Ukachi, Onuoha, and Nwachukwu (2014) state that attitude is a major influence on the use of e-resources. New ideas that are simpler to understand are adopted more easily than ideas that require the development of new skills and understanding. With these factors in mind, several authors have come up with strategies that can influence usage of electronic library resources. The most notable strategies recorded in literature include those outlined in the sections below.

2.8.2.1 Provision of proper infrastructure and technologies

As defined in Chapter 1, electronic library resources are library resources that are accessible through the aid of computers. There is a number of technologies that make access to electronic library resources possible. The most important infrastructure and technologies needed include computers or devices that allow the users to access the resources, reliable internet connectivity, adequate power supply, etc. Based on his study on the availability and use of audio-visual and electronic resources by distance learning students in Nigerian Universities, Aramide (2010) recommends the provision of adequate infrastructure, including power supply, as a major necessity to encourage use of electronic library resources.

In distance learning institutions, the libraries need to go a step further, because users are dispersed geographically and not all institutional learners have access to the institutional library. Distance learning institutions can implement discounted deals to ensure that the students get the required technologies to access electronic library resources, such as the services that were previously available for Unisa students that allowed them to acquire laptops, tablets, and data at a discounted price (Unisa 2016b).

2.8.2.2 Specialised library assistance services

Developments in ICTs have forced academic libraries to translate the traditional library services into virtual library services to enable them to serve the institutional users in a better way (Hermosa & Anday 2008). George and Frank (2004) state that providing online guides may sometimes not be sufficient enough to address the learning and information needs of distance learners. Results of a study by He et al. (2012) on undergraduate students' interaction with online information resources in their academic tasks at University of Pittsburgh in United States of America and Wuhan University in China, established that library users still need more personalised real-time and just-in-time guidance services usually referred to as “Ask the Librarian” services. However, a study on the information-seeking behaviour of undergraduate biology students by Callinan (2005) established that this was the least used service by undergraduate students, who preferred asking their peers for assistance rather than asking the librarian. This was further corroborated by Egberongbe (2011) in a study on the use and impact of e-resources at the University of Lagos, which established that most users had come to know about electronic library resources through their colleagues or the internet.

Nicholas and Tomeo (2005) recommend the following services for distance learning: remote access to online databases; virtual reference services; online tutorials; e-reserves; document delivery, web-based portals, and gateways; streaming video instruction and embedding of library resources with course management software. Furthermore, they recommend that subject/course specific resources for the library users and faculty. This recommendation is supported by results of a study on distance learning library services in Ugandan universities, which revealed that most students did not use

the library resources, due to the unavailability of resources that were in line with their courses (Mayende & Obura 2013).

The personalised guidance services may include synchronous and asynchronous access. Synchronous access includes access to the librarian through chat, telephone, and video-conferencing services and asynchronous access includes access to the librarian through e-mail, discussion lists and bulletin boards (George & Frank 2004, Snyder, Carter & Hostetler 2008). E-mail reference service benefits both the user and the librarian, because both get a record of requests and responses, it allows electronic transmission of search results, permits librarians time to reflect on requests and automated responses and give users an assurance that their requests have been received and are being processed (Hermosa & Anday 2008).

To ensure the delivery of quality services in distance learning libraries, Watson (2000) recommends new paradigms in the librarian profession, e.g. roles such as Instructional Support Services Librarian, Continuing Studies Librarian, Access Services Librarian, Document Supply Librarian, Distributed Services Librarian; Distance Education Librarian and Off-Campus Librarian. Mayende and Obura (2013) also support this view by pointing out that there should be special roles created for distance learning libraries to ensure that information seekers are linked with the information sources. In light of this, Alewine (2012) notes that the post of Outreach/Distance Education Librarian that was created by the Mary Livermore Library, the University of North Carolina at Pembroke in the United States of America to provide dedicated services to open distance learners. The role of this position includes the provision of library instructional services, the provision of mobile information literacy instruction sessions on the request of individual instructors, the creation of course-specific robust interactive online instructional modules, one-to-one reference services via email, instant messaging phone and Web form. Kelley and Orr (2003) recommend a constant review of library services and instructional programme to meet the needs of the population they serve.

2.8.2.3 Information literacy training

Most of the studies reviewed highlight information literacy as a major component in influencing usage of electronic library resources in academic institutions. A study by Kennedy (2011), which identified the marketing activities that libraries use in promoting the use of e-resources, revealed that group patron training was the most popular technique used to market the use of electronic library resources. Providing online library resources, services and programmes is not an end in itself: in order for library users to utilise the resources, they need to be made aware of the availability of the resources and the ways of accessing the resources (Nicholas & Tomeo 2005). The effective use of e-resources requires users to be able to identify an information need and to locate and evaluate the information (George & Frank 2004).

Seventy-six percent of the respondents in a study on the use of electronic journals by doctoral research scholars of Goa University, India by Chirra and Madhusudhan (2009) established that students needed information literacy training to enable them to use electronic library resources efficiently and effectively. A similar study conducted by Shuling (2007) on teachers, scientific staff, training students, graduate students and undergraduate students at Shaanxi University of Science and Technology, China, established that the main reason for non-use of electronic library resources was the lack of know-how in the use the e-resources. Eighty-eight percent of the respondents in this study indicated that they were willing to take up information literacy courses to enhance their skills in database use which, in turn, would make them use the resources more.

Bhatia (2011) recommends holding regular information literacy training to ensure that users are up-to-date with the latest developments in the electronic resources environment. Unlike traditional print sources, which are confined to library walls and can be accessed when the library is open, e-resources are accessible 24/7 to users, with the required technologies; hence the need for information literacy skills to enable x access and use the resources library users.

Information literacy training should include aspects such as advanced search strategies and the use of controlled vocabulary; Boolean searching; searching by wild-card characters; truncation; information evaluation, etc., thereby equipping users with skills that enable them to search for information effectively (Ali 2005, Callinan 2005, Qasim & Khan 2015). Anaraki and Babalhavaeji (2013) note that information search skills go hand-in-hand with the usage of electronic library resources. They also state that these skills go beyond basic ICT skills. The fact that most tertiary school students can use computers does not guarantee their ability to identify an information need, locate, evaluate and effectively use the information. This is substantiated by the findings of a study by Kimani (2014) on information literacy skills of incoming first-year undergraduate students at the Catholic University of Eastern Africa in Kenya, which established that, although the majority (86.1%) of the students had basic IT skills, 62% and 82,5% respectively were unaware of search strategies and Boolean operators. A study conducted by Sujatha and Murthy (2010) on end-user training on the utilisation of electronic information sources in fisheries sciences institutions in South India, established that most (79.40%) of the respondents needed training on “basic computer handling”, followed by 55%, who needed training on “browsing information on Internet”, and lastly 44%, who needed training on “learning CD-ROM databases search strategies”. The same study also investigated the preferred format of training and established that most (60.7%) of the respondents preferred “workshop/hands-on training; 49% preferred “on Screen presentations”; 46.9% preferred “need-based support” 42.4% preferred “informal small group classes”; 40.9% preferred “one-to-one demonstrations”; 40.3% preferred “self-help guides/handouts” and, lastly, 39.1% preferred “training by central/state government”.

In distance learning institutions, information literacy is as crucial as it is for full-time learners because it equips students with the skills to conduct relevant information searches independently and to apply the right information to the right information need without plagiarising (Callinan 2005). This training can be supplied by using the resources that are available on the World Wide Web, e.g. the online e-learning platforms, such as Moodle, Webinars etc. (George & Frank 2004). Information literacy skills can be built

through formal and informal training and, since distance learners may not be able to attend formal training, they can opt for the informal training.

The study on end-user training on the utilisation of electronic information sources in fisheries sciences institutions in South India by Sujatha and Murthy (2010), revealed that library users were reluctant to attend library instruction, but preferred to spend time in the computer centre. Seventy-six percent of the respondents had acquired information literacy skills through self-study; 74.3% through the assistance of colleagues/friends; 30% through attending formal courses and only 18.2% through guidance skills offered by the library. A similar study on the awareness and use of e-resources by faculty at the health sciences center of Kuwait University by Rehman and Ramzy (2004) also rated self-learning as the most appropriate mode for learning the use of electronic library resources by 63.9% of the respondents as compared to 36.1%, who preferred attending formal trainings offered by the library. The study recommends that, instead of offering standard library instruction courses, libraries should rather offer tailor-made courses that account for computer literacy, discipline, and status of the users.

Although several studies recommend running information literacy courses as a measure to encourage the use of electronic library resources, Martin (2008) questions whether investing in information literacy actually does transform to the effective use of the electronic library resources. The response to this question has been provided in several studies. Ukachi (2015) tested the relationship between undergraduate students' level of information literacy skills and their use of electronic resources in the library and established that there was a positive and significant relationship between the two variables. The outcome of this test showed that the level of information literacy skills of the undergraduate students significantly affects their use of e-resources. A study by Knight (2013), which examined the impact of the e-library on the usage of library resources at Northern Caribbean University, revealed that the 28% of the respondents, who indicated that they lacked the capability to use e-resources, had not attended any of the library's orientation/information literacy sessions. In the study entitled "The effect of information literacy on the utilization of electronic information resources in selected

academic and research institutions in Uganda”, Kinengyere (2007) revealed that, after running several information literacy training sessions in Uganda between 2003 and 2005, the Uganda library consortium determined that the usage of the electronic library resources tripled in 2005; institutional registrations of electronic library databases increased from 17 in 2004 to 35 in 2005 and the number of research output from Uganda increased significantly.

2.8.2.4 Embed information literacy training in academic learning curriculum

Rather than making it only the library’s effort, several authors suggest that the promotion of awareness and use of electronic library resources be made a responsibility of the institution as a whole – i.e. both the library and the academic departments, together with feedback from the learners (Hermosa & Anday 2008). Amjad, Ahmed, and Naeem (2013) recommend institutions embedding information literacy training in the university curricula and academic staff also being involved in promoting the use of the resources and providing guidance to learners. In this regard, Hermosa and Anday (2008) recommend faculty to work with the library in building the electronic library resource collection. The majority (40%) of the 104 librarians, who took part in an international survey of librarians by Slade in 2000, felt that the issue of integrating library and electronic resources into Web-based distance learning courses was quite critical for distance learning institutions and warranted future research on the best ways of doing so (Slade 2004).

In their studies on the barriers and facilitators of use of e-resources by learners in higher learning institution, Banwell et al. (2004) and Sarid, as cited in Guri-Rosenbrit (2004), established that tutors had a big influence in shaping the learner’s attitude towards the use of technologies. Several authors support this finding, indicating that students can choose to use the resources if asked to do so by their instructors (Crawford & Egberongbe 2011; George & Frank 2004; Vicente & Clink 2004). The study conducted by Callinan (2005) on information-seeking behaviour of undergraduate biology students established that the reason for undergraduate students not using electronic library resources was that they relied heavily on lecture notes and textbooks recommended by their lecturers.

Anaraki and Babalhavaeji (2013); George and Frank (2004) and Zabed Ahmed (2013) recommend that lecturers also include online resources in the reading lists when giving assignments to their learners. This is further corroborated by findings of a study by Kelley and Orr (2003) on the use of electronic resources in distance learning, where 60.1% of the students rated being given more assignments that require them to use electronic library resources as the second motivating factor for them to use e-resources. This calls for the library to develop ways of marketing electronic library resources to faculty. Besides holding information literacy training workshops for faculty, libraries can also develop materials and resources that faculty can use to promote information literacy skills of their learners (George & Frank 2004).

While several authors recommend embedding information literacy training in learning processes as a major influence to increase awareness and usage of e-resources, some authors have noted challenges that come with this recommendation. Kinengyere (2007) argues that collaboration between the library and academic departments may not be conceived as important by some institutions, as they may feel that training on usage of e-resources is still the responsibility of the library's instruction programme. This is substantiated by the results of a study on library support for distance learners, carried out by Hufford (2004), where 22.7% of the faculty respondents felt informing their off-campus learners about library resources and services available for them was the primary responsibility of the library staff. Callinan (2005) also feels embedding information literacy in academic curricula may be time-consuming for both faculty and librarians. Some academic staff, who do not have adequate information literacy skills, will need to be trained first before they can pass on the skills to their students. Academic staff usually indicate that their hands are full with teaching the course content and adding information literacy would be doubling their workload. This observation is supported by findings of a study on awareness and usage of e-resources at the health sciences center of Kuwait University by Rehman and Ramzy (2004) in which the majority (37.1%) of the faculty respondents cited lack of time, followed by inadequate information search skills (22.6%), as the major factors that prevented them from using electronic library resources.

A similar study conducted by Mulla (2011) on faculty at HKBK College of Engineering Nagawara, Bangalore, India, revealed that the lack of training was one of the barriers that influenced faculty not to utilise e-resources. One of the lecturers, who took part in a study by Ncube (2015) on students' perceptions of e-learning in the Department of Information Science at Unisa, opined that the lack of adequate skills on faculty may negatively influence students' perceptions on the use of e-platforms. Faculty members who took part in a study by Hufford (2004) on library support for distance learners, were asked how often they had worked with librarians during the development and/or delivery of a course material and 18.2% indicated they had never worked with a librarian; 40.9% rarely worked with a librarian; 31.8% occasionally worked with a librarian and only 9.1% worked frequently with a librarian. Furthermore, when asked on whether they agreed with librarians' participation in the design or preparation of off-campus courses that require students to conduct library research, 68.2% agreed and 31.8% disagreed (Hufford 2004).

Although the recommendation of embedding information literacy training may work well in enabling full-time learners to master the skills needed to use the resources, additional measures will need to be put into place in distance learning institutions, as learners are geographically dispersed. Online learning platforms, such as information literacy online courses or webinars, would need to be introduced if learners are to gain the skills needed to enable them to utilise the resources fully (George & Frank 2004).

2.8.2.5 Provision of on-line electronic resources guides

The fact that electronic library resources are available 24/7 and that users can access them from anywhere, anytime and without proper guidance makes it important for libraries to avail online electronic resources guides (Anaraki & Babalhavaeji 2013; Zabed Ahmed 2013). Nicholas and Tomeo (2005) note that the fact that most distant learners are not quite conversant enough within the modern research environment makes the provision of instructional guides a necessity. This is confirmed by findings of a study carried out by Kelley and Orr (2003) on the use of e-resources, where 71.7% of the undergraduate distance learning students identified Web-based tutorials or guides as the most preferred formats for receiving library instruction.

George and Frank (2004) give a list of such guides, as provided by the University of Maryland University College. Examples of the guides include a guide to searching UMUC library databases and e-journals; a guide to evaluating internet resources; a guide to writing a research report; a guide to managing research materials; documentation guides, etc. With such guides, users can teach themselves the information search skills needed for them to access the relevant literature for their studies. To make it more informative, the guides can include video clips showing the different aspects.

2.8.2.6 Consultation with the user on collection development

Since library information resources are meant for the information users, it is crucial that the library consults the users for guidance on the electronic resources that they can acquire. In academic institutions, Knight (2013) recommend that faculty, as the teachers or instructors, should be involved in the collection development and the book selection process to ensure the competitiveness of the collection versus the low library budgets. In a study on the use of e-resources by postgraduate students, research scholars and faculty members at the Indian Institute of Technology, Kharagpur, conducted by Garg and Tamrakar (2014), 21% of the respondents indicated that they were rarely consulted by the library regarding their information needs and 26.69% did not know if that service was available in the library.

2.9 Chapter Summary

In Chapter 2, the researcher reviewed literature and the research findings of other scholars that are in line with the objectives of this study. The reviewed literature covers electronic library resources and services for distance learners, the value of electronic library resources in learning, the purpose of electronic resources use in academic institutions, competency levels in the use of electronic resources by university students, barriers that hinder the use of e-resources in academic institutions and measures that should be put into place to influence awareness and usage of electronic resources in academic institutions. The literature reviewed established the findings of previous related studies with the intention of informing the current study. The next chapter details the methodology used in the study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

Users of research products have the right to know how the research was conducted, in order for them to judge the reliability of the results. Other researchers, who may need to conduct similar research, also need to be informed about the methodology implemented in a particular research, in case they may want to replicate same methodologies for similar or related studies. The research methodology is the section of research that highlights the procedures followed in conducting the research. Ngulube (2005) terms the research methodology as “the research story”, as it outlines the procedures used in gathering and processing data for research and usually include details about the approach/design employed, population studied, sampling procedures, instrumentation used, procedures employed in gathering and processing data, as well as statistical treatment of data.

The methodology that was applied in this study is set out in this chapter. The first part of the methodology outlines the research approach and design used for the study, followed by a description of the population, sampling, data collection and analysis aspects applied in the study.

3.2 Research Approach and Design

There are three main research approaches used in science, namely qualitative, quantitative and mixed research designs (Engwa 2015). The main differences between quantitative and qualitative research are that quantitative research is statistical while qualitative is non-statistical; quantitative research test hypotheses, while qualitative research uses induction; quantitative research is objective, while qualitative research is subjective (Wood & Welch 2010). Further to this, sampling in qualitative research is purposive or judgemental, whereas in quantitative research sampling is based on probability (Ngulube 2005). In view of the limitations of either using quantitative research or qualitative research, the mixed method research combines the two approaches. The main strengths of mixed method research is that it enhances the quality of a study by

eliminating biases, limitations, and weaknesses of using a single approach (Mavodza 2010).

Quantitative research relies mainly on statistics or numerical data to represent and manipulate observations for the purpose of describing and explaining the phenomena that those observations reflect (Ani 2013; Sukamolson 2007). In quantitative research, the researcher focuses on objectivity and should not allow personal bias to influence the analysis and interpretation of the data (Waithaka 2013). Researchers in quantitative research use structured questions, where the response options have been predetermined (Buchholz 2011). The main examples of quantitative research include “descriptive studies, exploratory and/or explanatory studies, operation research studies, citation analysis, bibliometrics, experiments and quasi-experiments” (Ngulube 2005).

Sukamolson (2007) and (Ani 2013) list the following as the main advantages of quantitative research:

- Minimal cost encountered, as it allows for the provision of estimates on larger population after only studying a sample of the population other than the entire population;
- Enables researchers to establish the depth of the study population's attitude;
- Results can be summarised by using numbers;
- Allows the researcher to carry out statistical comparisons between various groups;
- Deals with objective measurement of observation (behaviour) and also explains what causes the observation, thereby making the degree of accuracy of results high;
- Can answer such questions such as "How many?" and "How often?"
- Quantitative research is replicable, as it is based on objective measures; and
- It measures the level of occurrence, actions, trends, etc.

Qualitative research, on the other hand, is concerned with interpreting action and sorting out the meaning, It relies on descriptive data in the form of words and images from documents, observations and transcripts to answer questions about the complex nature of phenomena (Adler & Clark 2010:130; Mamafha 2013). Qualitative research is usually

in-depth in nature and focuses on individual cases of small groups or individuals (Ngulube 2005). The use of qualitative research in the field of humanities is mainly for capturing the human meanings of social life as it is lived, experienced and understood by the participants (Waithaka 2013). The main data collection methods used in qualitative research include unstructured and in-depth interviews, focus group interviews and observation. Examples of qualitative research studies include case studies, bibliographical and historical methods, grounded theory, ethnography, symbolic interactionism or semiotics, phenomenology and other interpretive practices, hermeneutics, and discourse analysis (Powell 1999).

Due to the huge size of the population, budget and time limitations, this study adopted the quantitative research approach by using the descriptive survey study design. In social sciences, survey research design uses questionnaires and interviews to collect primary or empirical data (Ani 2013; Buchholz 2011). Sukamolson (2007) notes that survey research is the most commonly used research design in quantitative research. This is affirmed by results of a study on research procedures used by Master of Information Studies students at the University of Natal in the period 1982–2002 by Ngulube (2005), which established that 69.1% of the studies studied used the survey method. The current study being a quantitative research study in the field of Information Science also viewed the survey study design as the most appropriate design to address the needs of the study.

Survey research usually covers large, heterogeneous populations and uses scientific sampling and questionnaire design to gather information from respondents for the purpose of understanding and/or predicting some aspects of the behaviour of the population of interest (Mutungi 2012; Sukamolson 2007). This study investigated the current situation with regards to the awareness and usage of electronic library resources by third-year students in the School of Arts at Unisa. In order to enable proper analyses, interpretation, comparisons and the identification of trends and relationships, the use of the descriptive survey research design was chosen. The other reason for using the descriptive survey was that it is the most appropriate method for obtaining views from a

large population and, also, that similar studies, some which have been cited in this study, used this type of study design (Adams & Bonk 1995; Ani 2013; Kaur & Verma 2009; Tenopir 2003). The quantitative approach was used for this study because all the research questions posed could be answered quantitatively. Descriptive responses were coded to represent quantitative answers.

3.3 Population

Mutungi (2012) and Adler and Clark (2010) define the *population* of study as the entire group of persons, elements or set of objects and events that the researcher is interested in studying. In large populations, it is usually not possible to study the entire population; hence the need to draw a sample from the population (Mamafha 2013). The results obtained from the sample can then be generalised to represent the entire population.

The population of this study is third-year students in the School of Arts at the University of South Africa. The School comprises of seven departments, namely African Languages, Afrikaans and Theory of Literature, Art history, Visual Arts and Musicology, Communication Science, English Studies, Information Science, and the Department of Linguistics and Modern Languages.

According to the Unisa registration statistics as of 5 May 2016, a total of 5 377 students were registered for their third-year studies in the School of Arts. Third-year students at Unisa are defined as students who are conducting the third and final level under NQF level 5, 6 or 7 of the undergraduate studies, depending on the studied degree. Unisa Bachelors' NQF level 5, 6 or 7, degree curriculum is divided into three levels, with the expectation that each level is completed in one year. In the first year, the student does the first level modules. When they pass, they enrol for the second level modules in Year 2 and, lastly, in Year 3, they enrol for third level modules which is the final level for one to acquire a Bachelor's Degree.

Library staff were included in the study as a way of determining the usage patterns of e-resources by third-year students in the School of Arts and the initiatives that are in place in the Unisa Library to increase awareness and usage of e-resources.

3.4 Sampling

Adler and Clark (2010) and Ngulube (2005) define *sampling* as the process of drawing a number of individuals who act as the representatives of a larger population, thereby allowing effective description of the population. Quantitative research usually involves a large population and, therefore, it is almost impossible to study the entire population, as in the case of this study, where a population of 5 377 students was considered. Surveying the whole population by using enumeration is quite costly in terms of money, time and personnel; hence the importance of sampling in surveys (Alreck & Settle 2004).

Sukamolson (2007) notes that, in survey research, it is a requirement that respondents are "randomly" sampled, thereby ensuring that each person in the population has a known probability of being selected. It is, therefore, necessary to draw up a sample that is a good representation of the population to enable the generalisation of results to the entire population. The sample has to be large enough to represent the population, but not too large, as that may transform to wastage of resources.

There are two main types of sampling techniques used in survey research: probability/random and non-probability/non-random sampling. In probability samples, every element of the population has an equal chance for inclusion in the study, while in non-probability sampling, some elements are unable to be selected and, therefore, has a high degree of sampling error (Adler & Clark 2010). Table 3 highlights the main differences between probability and non-probability sampling.

Table 3: Probability vs non-probability sampling

Probability Sampling	Non-probability Sampling
Each element of the population has the same probability or equal chance of being included in the sample.	There is no way of estimating the probability of each element being included in the sample, and no assurance that every element has some chance of being included.
Representative sampling plans are possible because it includes random selection at some point in the process.	Some units are unable to be selected; therefore you have no way of knowing the size and effect of sampling error i.e. missed persons, unequal representation, etc.
Selection bias is minimal as the sampling method enables calculation of a probability for each element in the population	Selection bias is highly possible because the selection of the sample is convenient or purposive.
Uses a sampling frame where contact information of the entire population can be drawn.	No sampling frame is used, selection of sample is non-random, i.e. convenient or purposive.
Due to the fact that representative sample plans are possible, results can be generalised on the entire population.	Results cannot be generalised on the entire population because the sample might not be a good representative of the population.
Can be more expensive and time-consuming than convenience or purposive sampling.	Less costly and time-consuming as no protocol or procedure is followed when selecting the sample.
Examples include simple random sampling, systematic random sampling, stratified random sampling, proportional stratified random sampling, multistage and cluster sampling.	Examples include quota, snowball, convenience or accidental and purposive or experience sampling.

(Adler and Clark 2010, Feild 2006, Ngulube 2005)

Both probability and non-probability sampling were used in the study. For the selection of the student sample, stratified random sampling procedure was used. Stratified random sampling is a probability sampling procedure that divides the population into groups of individuals with common characteristics and randomly selects a sample within each group (Adler & Clark 2010). Stratified random sampling is considered the best sampling method for heterogeneous population and, in the case of this study, the seven departments under the School of Arts.

For library staff, the researcher used purposive sampling procedure. Purposive sampling is a non-probability sampling procedure, based on the researcher’s judgement on the best elements that will facilitate the investigation. In this study, branch librarians and information search librarians were identified as the best elements to address awareness and use of e-resources by students, because they are the ones who deal directly with students when they require assistance with information searches.

3.4.1 Sampling procedure

Ngulube (2005) notes that, in addition to stating the sampling technique employed in a study, researchers must also clearly describe the procedure followed in selecting the sample, as the appropriateness of the sampling strategy has a bearing on the validity of research output. The major sampling concern in this study was selecting of a sample that would be representative of the population of study, which was third-year Unisa students in the School of Arts, under the seven departments. The sampling procedure used in this study is as outlined below.

For the student sample, the register of third-year students in the School of Arts acquired from the Unisa Registrar’s office was used as the sampling frame. The register was for module registration counts of all third-year students in the School of Arts and was supplied in MS Excel format, with a total of 10 325 items. The researcher separated the list into the seven stratum and, thereby, students registered in each of the seven departments were placed in separate stratum. After the separation, each department registration was as represented in Table 4.

Table 4: Unisa third-year School of Arts module registrations

Department	Module Registrations
African Languages	216
Afrikaans and Theory of Literature	647
Art History, Visual Arts, and Musicology	288
Communication Science	5 988
English Studies	1 281
Information Science	1 627
Linguistics and Modern Languages	278
TOTAL	10 325

Duplicate records were then removed, because the register presented was for module registration counts and not qualification registrations, meaning that, if a student was registered for more than one module they had several listings under their names. Upon removal of duplicates, the register remained with 5 377 records, as presented in Table 5.

Table 5: Unisa third-year School of Arts population by department

Department	Population
African Languages	98
Afrikaans and Theory of Literature	482
Art History, Visual Arts, and Musicology	131
Communication Science	2 872
English Studies	979
Information Science	607
Linguistics and Modern Languages	208
Total	5 377

After establishing the proportional sample size to be drawn from each stratum, random sampling was used to select the study sample from each stratum. Since all data was in Excel format, the Excel Rand value function “=rand()” for selection of random numbers was used to be select the sample in each stratum.

For the library staff sample, a request for information, together with the ethical clearance certificate, were sent to the Unisa Library Director, who referred the researcher to the Library Corporate Services Research Specialist. Upon consultation with the Corporate Services Research Specialist and going through the objectives of the study and the library staff questionnaire, it was agreed that the Information Search Librarians and Branch Librarians would be the best to answer the questions posed in the questionnaire. A list containing email addresses of the seven Search Librarians, who are all based at the Muckleneuk Campus of Unisa, was supplied and the researcher was referred to the branch libraries for branch library email addresses. Using branch telephone numbers supplied on the Unisa Library website, the researcher called all the branch libraries and managed to secure seven email addresses from the Cape Town Branch Library, one

each, from Sunnyside, East London, Johannesburg, Florida, Polokwane and Ekurhuleni Branch Libraries. The researcher tried several times to call Durban, Rustenburg, Nelspruit, Pietermaritzburg and Akiki Branch libraries, but the telephones were not answered. The researcher then used the email addresses listed on the Unisa Library website to contact Nelspruit and Pietermaritzburg branch libraries. There were no listings of email addresses for Durban, Rustenburg and Akiki Branch libraries and, after exhausting all efforts to source for email addresses for these branches to no avail, the researcher had to exclude them from the study. The sample for library staff, therefore, came up to 22 library staff members from 10 of the 13 branch libraries.

3.4.2 Sampling frame

Ngulube (2005) explains the sampling frame as “a major ingredient of the overall sample design”. A *sampling frame* is defined as a listing of the whole population where a sample is drawn (Waithaka 2013).

The sampling frame for the study was the list of third-year School of Arts students. This was considered a reliable and updated source of information, as it was produced and supplied by the Unisa Registrar’s office, who are custodians of Unisa student records. Before selecting the sample, the sampling frame was evaluated for comprehensiveness and the probability of selection of each element was determined and duplicates removed (Ngulube 2005). The list had 10 325 elements, which accounted for module registrations for the School of Arts third-year students. The list was quite comprehensive, in that it contained details about the college code, school code, department code, department description, study level, module code, student numbers, student names, titles and email addresses. Since the list was for module registrations and not qualification registrations, there were numerous duplicates, as students that were registered for more than one module were represented more than once according to the number of module registrations.

3.4.3 Sample size

To ensure the generalisation of results on the entire population, the study needs to ensure that the right sample size is drawn (Ngulube 2005). Nowadays, one does not need to be a statistician to calculate the correct sample size for a study. Since data collection and analysis were to be carried out using Survey Monkey, the researcher used the sample size calculator available on the same platform to calculate the sample size.

The sample size was calculated by using a confidence level of 95% and a margin of error of 5%. From a population of 5 377, a sample size of 360 was established and, to ensure the selection of a random sample, the researcher used Microsoft Excel's Rand function "`=RAND()`" to draw the sample from each of the seven departments in the School. To ensure an equal representation of a descriptive sample in all seven departments, the researcher employed proportional stratified random sampling. This was done by making sure that each stratum in the sample was proportionate to the size of the stratum in the population. This percentage was used to calculate a proportionate sample drawn from each department. Table 6, reflects the sample drawn from each department based on the calculation above.

Table 6: Sample size by department

Department	Enrolment Figures	Population %	Sample Size
African Languages	98	1.8	7
Afrikaans and Theory of Literature	482	9.0	32
Art History, Visual Arts, and Musicology	131	2.4	9
Communication Science	2 872	53.4	192
English Studies	979	18.2	65
Information Science	607	11.3	41
Linguistics and Modern Languages	208	3.9	14
Total Population	5 377	100	360

3.5 Data Collection Method/Instrument

A questionnaire is a data collection instrument consisting of a set of questions recorded on paper or electronically that is used to gather information in a survey (Adler & Clark 2010). Online semi-structured, self-administered questionnaires created and distributed

by using Survey monkey (Appendix 1 and 2) were used as data collection instruments on both the student and librarian sample.

The student questionnaire had a total of 28 questions and the librarian questionnaire had a total of 20 questions. Some of the questions were broken up into two sections. Several authors argued that short questionnaires on mail surveys are likely to have a higher response rate than longer questionnaires. However, some studies indicate that the length of the questionnaire has no bearing on the response rate (Deutskens et al. 2004). Self-administered questionnaires reduce the possibility of bias, because, unlike interview guides, respondents fill in the questionnaire without the researcher's assistance (Mutungi 2012).

The online questionnaires were selected as the best data collection method for this study because it is the most convenient and less costly data collection method on a large population; produce results quickly; can be completed at a time most convenient to the respondent; offers anonymity and limits interviewer bias. Online questionnaires allow respondents who are geographically dispersed to be reached with ease, which is the case with respondents to this study. The main advantages of online questionnaires are they have limited costs – e.g. costs for printing, distribution, collecting, scanning and storing the paper surveys, the costs of typing responses to open-ended questions – and there is a reduction of bias, as the respondents have little or no direct contact with the researcher. Some of the main disadvantages of online questionnaires are low response rates, which may, in turn, affect the findings of the overall research; lack of control on incomplete questionnaires, which will cause skewed results, and self-selection bias. To minimise the problem of respondents skipping some of the questions, the researcher programmed the survey in such a way that it restricted the provision of answers on some questions (Buchholz 2011; Dommeyer, Baum, Chapman & Hanna 2002; Dommeyer, Baum, Hanna & Chapman 2004, Mamafha 2013).

3.5.1 Questionnaire design

The questionnaires were adapted from similar studies, some which have been cited in this study. The questionnaires were prepared with the research questions and objectives in mind, so as to ensure that all issues of concern were addressed. Online questionnaires were chosen as the best data collection instrument for this study due to the nature of the study and also the setup of Unisa as a distance learning institution, with students located worldwide: it would have been difficult to use any other instrument to obtain the needed information. Since this was a quantitative research, descriptive data from the open-ended question were coded, so that they could be quantified. The questionnaires contained both open-ended and closed questions. The questionnaire for the students was subdivided into three sections: User Profile, Sources of information and Electronic Resources, Awareness, Access and Use. The questionnaire for librarians was also divided into three sub-sections: Librarian Profile, Technology for Access and Use.

3.5.2 Validity and reliability of data collection instrument

Validity is defined as the degree to which an instrument actually measures what the researcher says it is measuring, whereas reliability refers to the degree to which a measure yields consistent results (Adler & Clark 2010). Ngulube (2005) observes that the elimination of issues relating to reliability and validity gives users and readers of the research an impression that quality of data is not a major concern to a study. Validity assists researchers in drawing sound conclusions from their data (Ani 2013). Establishing validity in research entails establishing “trustworthiness, quality, and accuracy of the procedure used in obtaining answers to the research question posed in a study” (Mamafha 2013).

To ensure validity and reliability of instruments used in this study, both questionnaires were piloted and the results of the pilot were reported and presented to the supervisors for approval, before proceeding with the distribution of questionnaires to the study respondents. The pilot study was done with the researcher’s colleagues at the Information Training and Outreach Centre for Africa. The group comprised mainly information professionals, researchers and academicians from eight countries, namely

Burkina Faso, Ethiopia, Ghana, Nigeria, Tanzania, Uganda, South Africa and Zimbabwe. Pretesting both questionnaires was done to determine the effectiveness of the questionnaires in producing responses that would provide meaningful, relevant and accurate answers to this study.

The pilot study was helpful for the research, as it helped in re-designing of the questionnaires. Since the pilot was conducted on the researcher's colleagues, it also gave her a chance to have face-to-face conversations with her colleagues wherever they felt a question was not clear and to make adjustments accordingly, so as to include input raised by the respondents in re-designing the questions.

Due to the fact that this is a quantitative study, most of the questions in the questionnaires were closed questions and a few open-ended questions, thereby allowing the researcher to probe with a view to clearing up vague responses, which, in turn, also contributed to the validity and reliability of the responses to the questions (Buchholz 2011). In addition to proving reliability and validity of the data collection instruments used in the study, the researcher reported the findings of the study accurately, as this also enhances the validity of the study (Mavodza 2010).

3.5.3 Questionnaire administration

Having acquired the ethical clearance letter from the Unisa Research and Ethics Committee, authorising the researcher to use Unisa staff and students in the study, the researcher got among other statistics, Unisa email addresses for third-year students in the School of Arts from the Unisa Registrar's Office and addresses of the information search librarians and branch librarians from the Unisa Main Library, the Unisa Library website and the branch libraries. Both surveys were distributed online via Survey Monkey, an online survey software. Both questionnaires were attached to a cover letter, detailing the purpose of the study and informed consent form as per the requirements of the Unisa Research and ethics committee.

3.6 Data Analysis and Interpretation

Data collection is followed by data analysis, which involves the establishment of meaning from the data collected. Without analysis, collected data would be meaningless. Data analysis in quantitative research involves the analysis of quantifiable data and the fact that data volumes in quantitative research are usually large, the use of computer software is usually recommended to minimise errors (Waithaka 2013).

The surveys were created by using Survey Monkey and the link to the surveys were sent via email and online responses were gathered. The analysis was done by using the inbuilt Survey Monkey analysis tool and Microsoft Excel. Survey monkey was selected as the best program for development of the questionnaires because it is easier to create surveys with this program and it also has an in-built analysis tool that can generate graphs and tables to enable representation of data in the best possible way. To ensure completeness of the research, all graphs, tables, and charts are accompanied by detailed interpretations of the information presented in them.

3.7 Ethical Considerations

Because the research involves human beings as the research subjects, ethical considerations, such as confidentiality, anonymity, and avoidance of deception were considered when drafting the questionnaires. An ethical clearance letter (attached in Appendix C) was obtained from the Unisa Research and Ethics Committee. Documentation, including the research proposal, survey instruments, informed consent form, permission to carry out research on Unisa staff and students, were submitted to the Research and Ethics Committee before approval was awarded.

Every individual who took part in the study was informed about the study, why they had been selected to take part in the study, presented with the ethical clearance letter and gave their informed consent agreeing to voluntarily participate in the study. To ensure the confidentiality of the participants, both questionnaires did not ask participants to disclose their names and other personal details. The institutions of study, which is the Unisa Library and the School of Arts, will receive a copy of the final research report.

3.8 Evaluation of the Research Methodology

This section evaluates the research methodology used for the study. The quantitative research approach, with the descriptive survey design, was used, due to the population size, budget and time limitations. The other reason for selecting the quantitative research approach was that all research questions posed could be answered quantitatively and descriptive responses were coded to represent quantitative answers. Descriptive surveys are the most appropriate method of obtaining views from a large population size, as the case with this study (Adams & Bonk 1995; Ani 2013; Kaur and Verma 2009; Tenopir 2003).

The survey instrument used was questionnaires, as they are one of the two main data collection instruments used in survey research design in the social sciences (Ani 2013; Buchholz 2011). The other reason for considering online questionnaires as the best study instrument was the fact that Unisa students and library staff are dispersed geographically, as it is an open distance learning institution.

The pilot study enabled the researcher to establish whether all the research questions were addressed by the questionnaires and to establish if questions posed in the questionnaires were well understood by the respondents. The feedback that was obtained from the pilot enabled the researcher to re-design the questions in a way that ensured that questions were understood by the respondents and addressed the research objectives.

3.9 Chapter Summary

This chapter outlined the procedure followed in conducting the study. The main research approaches in social sciences have been named and described. Reason for selection of the quantitative research approach and survey research have been explained and justified. The population of the study has been explained in detail, the sampling method and sampling frame used, the sample size and sampling procedure have been outlined. Further, the data collection instruments used in the study have been explained and justified. Limitations and advantages of the data collection instrument chosen for the

study have been identified. The issues of reliability and validity have also been outlined. The various ethical issues considered when undertaking the study were briefly explained. Chapter 4 will focus on issues relating to findings, presentation, and analysis of results.

CHAPTER 4: FINDINGS AND PRESENTATION OF RESULTS

4.1 Introduction

The intention of this section is to report on the findings of the study conducted by using the data collection instruments described in Chapter 3. Two online questionnaires were used as the data collection instruments – one for the main population namely, Unisa third-year students in the School of Arts registered in the year 2016, and the second questionnaire was used on the librarian sample.

The online questionnaires were designed using Survey Monkey and email invitations to the study were sent to both the student and librarian samples. The email included a short introduction to the researcher, introduction to the study, reason why the participants had been selected to take part in the study, an informed consent and ethical clearance statements, expected time needed to complete the questionnaire and hyperlinks to the questionnaires. The surveys were left open for 2 months (1 August 2016–31 September 2016) to ensure a high response rate. To boost the response rate as advised by Nulty (2008) and Deutskens (2004), two reminder emails were sent out to the entire sample reminding those that had not been able to complete the questionnaires to do so and thanking those that had completed the questionnaires.

After closing the survey, all responses were downloaded and exported from Survey Monkey to Microsoft Excel for easier analysis. The Survey Monkey tool also exported some tables and graphs. In addition to the graphs and tables automatically created by Survey Monkey, other graphs and tables were created using Microsoft Excel.

Before data was analysed, it was cleaned to remove incomplete and irrelevant entries. Both questionnaires contained closed and open-ended questions. Since the study is quantitative, the open-ended questions were coded into numeric form by using Microsoft Excel to necessitate analysis of data.

The questionnaires were designed to answer the following research questions:

- What electronic library resources does the Unisa Library offer to students?
- What initiatives has the Unisa Library put into place to encourage awareness and usage of electronic library resources by students?
- Are students aware of the electronic library resources available to them and do they use these resources?
- Are students competent in using electronic library resources?
- What is the purpose and extent of use of electronic library resources by students?
- What are the main barriers that prevent students from accessing and using the e-resources?
- What measures can the Unisa Library put in place to encourage the maximum use of electronic resources by students?

4.2 Student Questionnaire Findings

4.2.1 Response rate

As stated in Chapter 3, the student questionnaire was sent out to 360 students, representing a proportionate sample from each of the seven departments in the School of Arts. From the sample, 165 responses were received, which gives a 46% response rate. Although the response rate was less than 50%, the data gathered was considered adequate for the researcher to draw sound conclusions, as online surveys are known to have a low response rate (Dommeyer et al. 2002; Dommeyer et al. 2004; Nulty 2008; Shih & Fan 2008). According to the *Guidelines for maximising response rate* (Punch (2003), a response rate of 40% in email surveys is considered average and a response rate of 50% is considered to be good. Table 7 shows the overall questionnaire response rate.

Table 7: Student questionnaire response rate

Description	Number	Percentage
Responses	165	46%
Not Responded	195	54%

4.2.2 Profile of respondents

The first question in the student questionnaire asked students to specify their departments, so as to ensure that all departments in the School of Arts were represented, thus allowing for the generalisation of results. All the 165 respondents to the survey responded to this question.

The majority of the students who responded to the survey 47.3% (n=78) were studying Communication Science, followed by 18.8% (n=31) Information Science, 15.2% (n=25) English Studies, 8.5% (n=14) Afrikaans and Theory of Literature, 4.2% (n=7) Linguistics and Modern Languages, 3.6% (n=6) Art History, Visual Arts and Musicology and the last 2.4 % (n=4) were studying African languages. The profile of respondents is presented in Table 8. As reflected in the table, all departments were represented in the study and the representation was consistent with the sample size in each department.

Table 8: Profile of respondents

Answer Options	What is your field of study?		
	Sample %	Response Percentage	Response Count
African Languages	1.8%	2.4%	4
Afrikaans and Theory of Literature	9.0%	8.5%	14
Communication Science	53.4%	47.3%	78
English Studies	18.2%	15.2%	25
Information Science	11.3%	18.8%	31
Linguistic and Modern Languages	3.9%	4.2%	7
Art History, Visual Arts, and Musicology	2.4%	3.6%	6
Answered question			165

The results show that all departments were represented in the responses. Although the researcher applied the proportional random sampling technique to ensure proportionate representation from each of the departments, the results show that some of the departments were over-represented, while some were under-represented, something over which the researcher had little control.

4.2.3 ICT knowledge

Since electronic resources can only be accessed with the aid of computers or other electronic devices, it was important to determine the ICT knowledge of the respondents. There were 163 responses to this question, with the majority 44.2% (n=72) and 38.7% (n=63) rating their ICT knowledge as good and very good respectively. Only 28 (17.2%) of the student respondents rated their IT knowledge as average. These results show that most of the students have higher competence levels in using ICTs. The responses are reflected in Table 9.

Table 9: ICT knowledge of respondents

How do you rate your Information and Communication Technologies Knowledge?		
Answer Options	Response Percentage	Response Count
Very Good	38.7%	63
Good	44.2%	72
Average	17.2%	28
Poor	0.0%	0
Answered question		163

4.2.4 Importance of access to electronic library resources

A Likert scale was used to evaluate the way in which students perceived the importance of access to electronic library resources. On a scale of 1–5, 1 being “Not Important” and 5 being “Very Important”, respondents were asked to rate how important it was for them to have access to electronic library resources. 163 responses were gathered in this question and the majority, 66.9% (n=109) and 19% (n=31), indicated that accessing electronic library resources was very important and important. Sixteen (9.8%) felt accessing electronic library resources was moderately important. Only 1.2% (n=2) and 3.1% (n=5) indicated that accessing electronic library resources was slightly important and not important respectively. The results of the responses are reflected in Table 10.

Table 10: Importance of access to electronic library resources

How important is it for you to have access to electronic library resources? [Scale: 1 = Not Important to 5 = Very Important] (Select the most appropriate number)		
Answer Options	Response Percentage	Response Count
1 = Not important	3.1%	5
2 = Slightly important	1.2%	2
3 = Moderately important	9.8%	16
4 = Important	19.0%	31
5 = Very important	66.9%	109
Answered question		163

4.2.5 Frequency of use of different types of electronic resources for academic purposes

When asked how frequently they had used different types of e-resources for academic purposes over the past three months, most of the respondents indicated that they favoured using the World Wide Web, with an average rating of 4.64% followed by electronic library resources, which received an average rating of 3.07%. Personal library collection, Unisa Library print materials and colleagues in other universities were the least favoured sources of academic information, with respective average ratings of 2.80%, 2.53 and 1.70%. The responses are reflected in Figure 5.

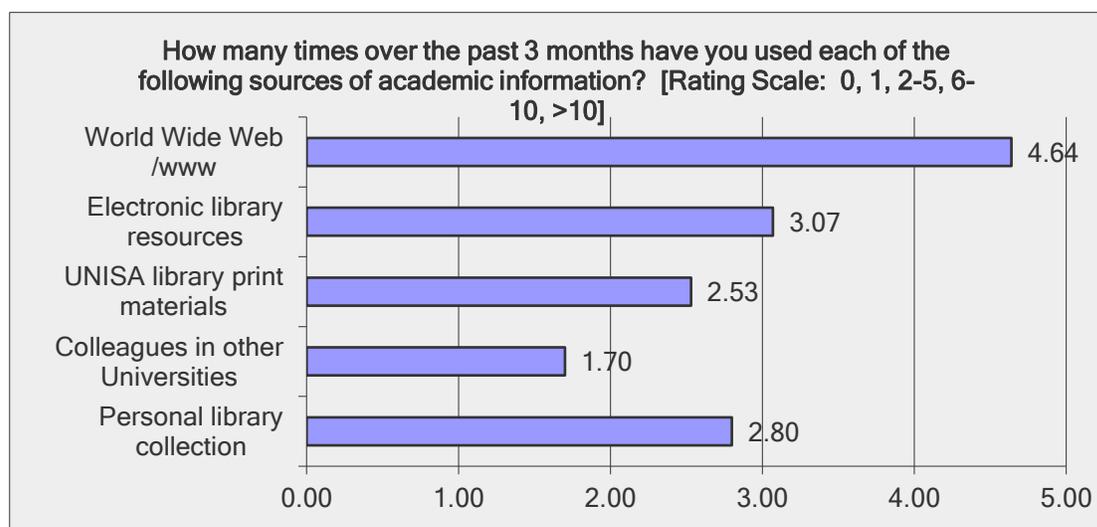


Figure 5: Frequency of use of academic information sources

4.2.6 Effect of lack of academic information on studies

When asked whether their studies had been affected by the lack of access to academic literature, most (56.5%) of the 160 student respondents indicated that their studies had been affected by the lack of academic information, while the remaining 43.5% (n=70) indicated otherwise. Table 11 shows the findings to this question.

Table 11: The effect of lack of academic information on studies

Description	Number	Percentage
Yes	90	56
No	70	44

4.2.7 Awareness of Unisa electronic library resources by students

One of the objectives of this study was to establish whether students were aware of the electronic library resources available to them through the Unisa Library. In response, slightly more than half (50.3%) of the 161 respondents to this question indicated that they were not aware of the resources, whereas 49.7% (n=80) indicated that they were aware of Unisa electronic library resources. The results are reflected in Table 12.

Table 12: Students' awareness of Unisa e-resources

Description	Number	Percentage
Yes	80	49.7
No	81	50.3

4.2.8 Usefulness of Unisa e-resources to students

Students were asked to rate the usefulness different UNISA electronic resources using a rating scale of 1–5, with 5 being very useful; 4 somewhat useful; 3 useful 2 not useful and 1 indicating indifference (no opinion). E-theses and dissertations were perceived to be the most useful e-resource with an average rating of 3.31 followed by e-newspapers and e-magazines, which received average ratings of 3.26 each, then bibliographic databases, with an average rating of 3.06. Publisher's journal archives were rated at 2.99 and full-text abstracting and indexing databases were rated at 2.90. The resources that were perceived to be less useful were publisher's journal collections, e-reference sources and e-book collections, which each received respective average ratings of 2.83, 2.80 and 2.78. The ratings are reflected in Figure 6.

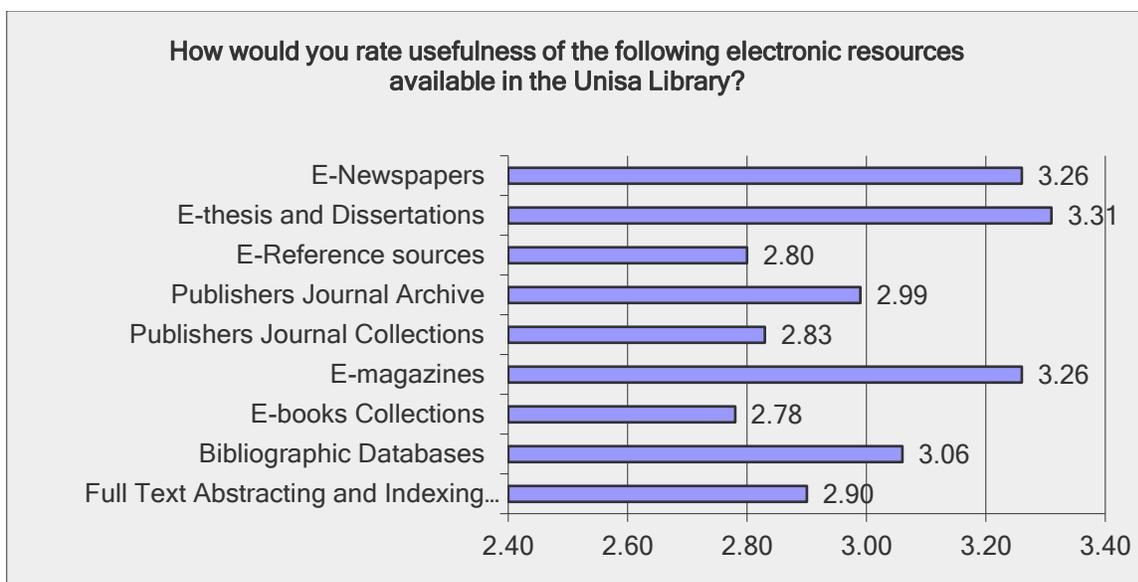


Figure 6: Usefulness of Unisa electronic library resources to students

4.2.9 Awareness of the School of Arts subject librarian

The Unisa Library has a dedicated subject librarian for each college, who assists students with information searches and any aspect to do with the library. This question sought to establish whether students knew the School of Arts subject librarian. Only 22 (13.8%) of the 160 respondents indicated that they knew the School of Arts Subject librarian, while the remaining 86.2% didn't know the school librarian. The results are summarised in Table 13.

Table 13: Awareness of the School of Arts Subject Librarian

Description	Number	Percentage
Yes	22	13.8
No	138	86.2

4.2.10 Library user accounts on Unisa Library portal

In order for students to access and use Unisa's electronic library resources, they need to set up a library user account on the Unisa Library portal, after which they receive a username and password that allow them access to the portal, which is the gateway to the electronic library resources. Participants were asked if they had set up library accounts on Unisa Library portal and, as reflected in Table 14, the majority (57.1%) of

the 163 respondents to this question indicated that they had set up a library account, while an equally good number (42.9%) indicated otherwise.

Table 14: Setting up library user accounts

Description	Number	Percentage
Yes	93	13.8
No	70	42.9

As a follow-up question on whether the respondents had set up library accounts on the Unisa Library portal, those that had not set up online library accounts were asked to state the reasons for having set up the account. There were 65 respondents to this question and the majority 67.7% (n=44) indicated that they lacked awareness of how to set up the library user accounts; 20% (n=13) already had access to adequate information resources; 6.2% (n=4) felt they had no need for a library accounts; 4.6% (n=3) had poor internet connectivity and the last 1.5%(n=1) had failed to set up a library account due to lack of time. Figure 7 shows the responses in graphical form.

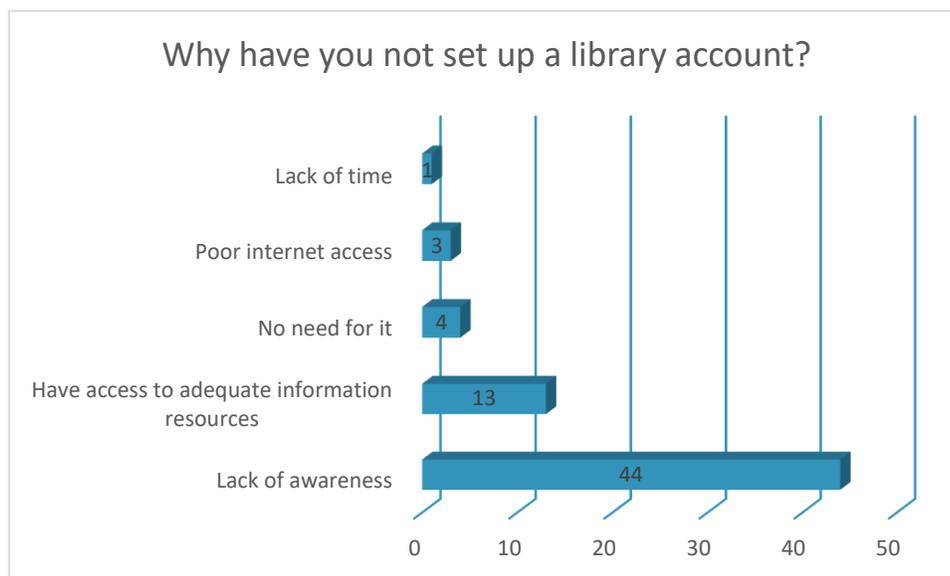


Figure 7: Reasons for not having a Unisa Library account

4.2.11 Announcements on Unisa electronic library resources

In an effort to establish some of the initiatives that were available from the Unisa Library to promote awareness and use of e-resources, this question sought to find out if respondents had received announcements about electronic library resources. As shown

in Table 15, eighty-seven (53.4%) of the 163 respondents indicated that they had not received any announcements about electronic library resources, whereas an almost equal number, 46.6% (n=76), indicating they had received announcements about electronic library resources.

Table 15: Announcements about electronic library resources

Have you received announcements about electronic library resources?		
Answer Options	Response Percentage	Response Count
Yes	46.6%	76
No	53.4%	87

4.2.12 Place of access

Respondents were asked if they accessed e-resources in Unisa Library or remotely. Seventy-five percent (n=109) of the 146 respondents indicated that they accessed e-resources remotely and the remaining 25.3% (n=37) accessed e-resources from the Unisa Library. These findings can be attributed to Unisa being a distance learning institution; hence most of the students might be staying in areas far away from Unisa Library branches. The results are reflected in Table 16.

Table 16: Places of access

How do you access electronic resources?		
Answer Options	Response Percent	Response Count
In Unisa Library	25.3%	37
Remotely	74.7%	109

4.2.13 Pay for internet, printing, and paper

Similar to Unisa’s e-resources, most of the electronic library resources are online and, therefore, a user would require internet connectivity to access them. Furthermore, some students may require to print some of the accessed materials for future reference. Respondents were asked if they paid for internet access, paper, and printing. 70.6% (n=113) of the 160 respondents indicated that they paid for internet; 63.9% (n= 99) of the 155 respondents indicated that they paid for printing and 62.3% (n=96) of the 154

respondents paid for the paper to print. The responses, which are recorded in Table 17, show that the majority of the students pay for internet access, printing and paper to print.

Table 17: Students' payment for internet connectivity, paper, and printing

Answer Options	Yes	No	Response Count
Internet Access	113	47	160
Printing	99	56	155
Paper to print	96	58	154

The second part of the question sought to find out from the respondents, who had indicated that they paid for internet access, printing and paper to print, if the cost of these resources prevented them from accessing the information they needed. One hundred and ten responses were gathered for this question, with the majority (54%) indicating that the cost did not prevent them from accessing the e-resources; 18% (n=20), saying it did and the last 28% (n=31) indicating that sometimes the cost prevented them from accessing the information they needed. Figure 8 summarises the findings.

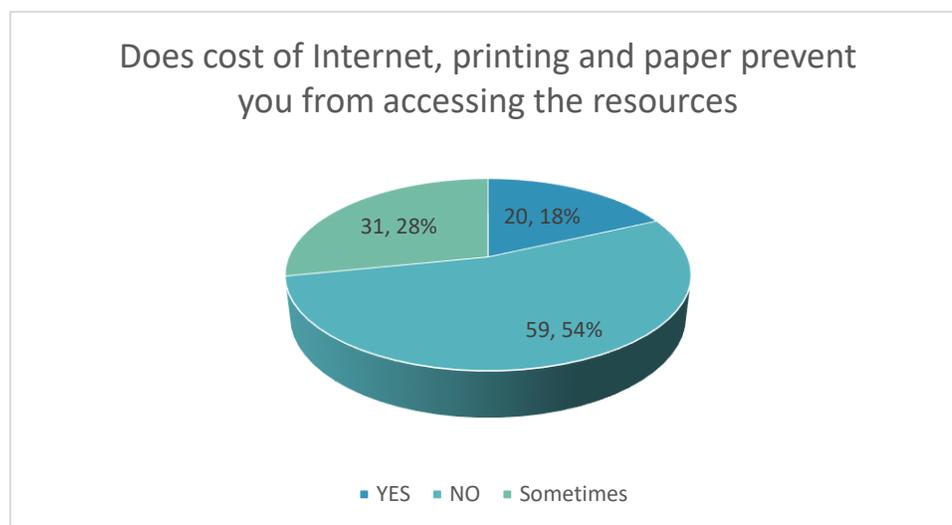


Figure 8: Does the cost of internet, printing, and paper prevent students from accessing e-resources

4.2.14 Interruption of access to computer by power supply

Access to electronic library resources is made possible through the use of computers or related devices. These devices are powered by electricity and, if there are power cuts, it

may result in users failing to access and use the e-resources. Respondents were asked if access to their computers or related devices was affected by power cuts and the frequency rate of the power cuts. The majority (58.9%) of the 163 respondents to this question indicated that access to their computers was not interrupted by power cuts and the remainder indicated otherwise. The results are reflected in Table 18.

Table 18: Interruption of computer access by power supply

Is access to your computer interrupted by power cuts?		
Answer Options	Response Percentage	Response Count
Yes	41.1%	67
No	58.9%	96
If Yes – how frequently? [Once per day / 2 - 5 times a week / > 5 times a week]		63
Answered question		163

Sixty-three (63) of the 67 respondents, who indicated that access to their computers was affected by power cuts, responded to the section on the frequency of the power cuts. As reflected in Figure 9, the majority (66.7%) indicated that the frequency of the power cuts was only once a week, while 20.6% (n=13) indicated that the power cut frequencies were between 2–5 times a week and the remaining 12.7% (n = 8) indicated that the power cut frequency was more than 5 times a week.

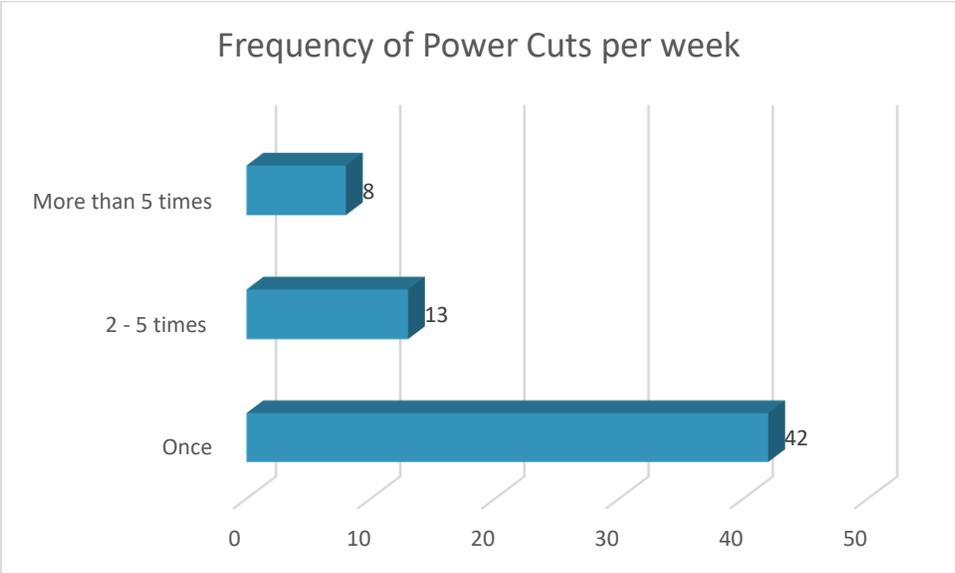


Figure 9: Frequency of power cuts

4.2.15 Interruption of access to internet due to connectivity problems

Some electronic resources are available on the internet and access to such resources requires a fast internet connection, failure of which may result in a user failing to access the resources. Respondents were asked if access to the internet was affected by connectivity problems. Ninety (54.9%) of the 164 respondents indicated that access to the internet was not interrupted by connectivity problems and the remaining 74 (45.1%) indicated that access to the internet was usually interrupted by connectivity problems. The results are reflected in Table 19.

Table 19: Interruption of computer access to connectivity problems

Is access to your internet interrupted by connection problems?		
Answer Options	Response Percentage	Response Count
Yes	45.1%	74
No	54.9%	90
If Yes: how frequently? [Once per day / 2–5 times a week / > 5 times a week]		70
Answered question		164

Seventy (70) of the 74 respondents, who had indicated that their access to internet connectivity was affected by connectivity problems, responded to the section on the frequency of the internet access interruption. As reflected in Figure 10, the majority 36 (51.4%) of the responses indicated that the internet connectivity interruption was between 2–5 times a week; 22 (31.4%), once a week and the remaining 12 (17.2%) more than five times a week.

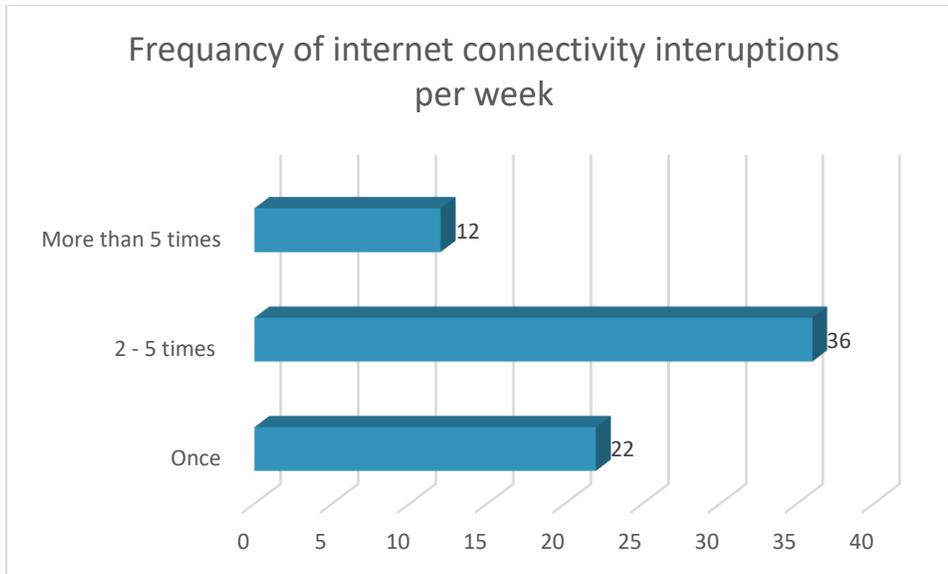


Figure 10: Frequency of internet connectivity interruptions

4.2.16 Willingness to use Unisa’s electronic resources more

When asked if they were willing to use Unisa electronic resources more than they were currently doing, the majority (88.9%) of the respondents indicated that they would want to use the resources more than they were currently doing. Figure 11 provides a graphical representation of the findings.

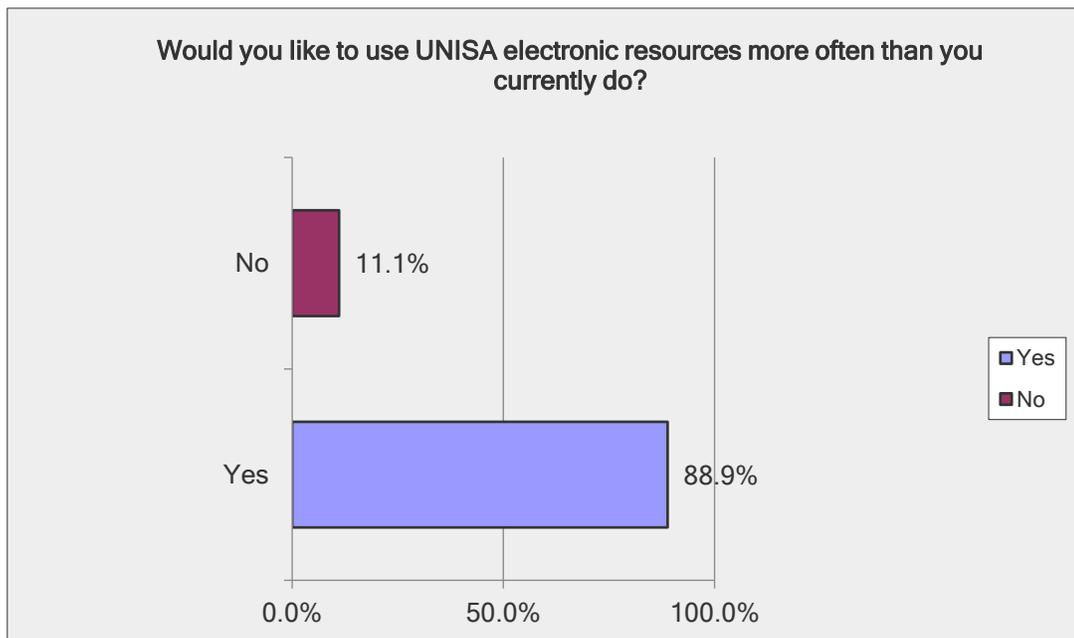


Figure 11: Willingness to use electronic library resources more

4.2.17 Barriers to use of Unisa Electronic resources

When asked to indicate the major barriers that prevented them from using Unisa electronic resources, the majority (36.7%) of the 147 respondents cited the cost of access to the internet, followed by 25.9% (n=38) citing unavailability of relevant literature. The other barriers were rated in the following sequence: lack of time (25.2%); preference for information freely available on the internet (22.4%); speed of the internet (19.7%); poor information search skills (18.4%); nobody available to assist with access (17.7%); preference for print resources (16.3%) and lack of computer (13.6%). Information overload and problems with usernames and passwords were the least ranked barriers, with respective ratings of 10.2 and 8.2%. Table 20 shows the barriers arranged in order of importance.

Table 20: Barriers to the use of Unisa e-resources

What prevents you from using Unisa electronic resources more than you are currently doing?		
Answer Options	Response Percentage	Response Count
Cost of access to the internet	36.7%	54
Un-availability of relevant literature for my studies	25.9%	38
Lack of time	25.2%	37
Preference for information freely available on the internet	22.4%	33
Speed of internet	19.7%	29
Poor information search skills	18.4%	27
Nobody is available to assist with access	17.7%	26
Preference for print resources	16.3%	24
Lack of computer	13.6%	20
Information overload	10.2%	15
Problems with usernames and passwords	8.2%	12
Other (please specify)		23
Answered question		147
Skipped question		17

Twenty three (23) respondents listed other reasons that prevented them from using Unisa electronic library resources than they were currently doing. On top of the list is

lack of awareness of the availability of electronic library resources, followed by difficulties in navigating through the Unisa Library website. The other barriers cited included no electronic versions of some publications; no library accounts; poor internet connectivity; comfortable with using print resources and study guides and not comfortable with reading on the screen. The other barriers are reflected in Table 21.

Table 21: Other barriers preventing student access to e-resources

Answer Options	Response Count
Lack of awareness	9
Nothing	3
Difficult to navigate through the Unisa Library website	3
No electronic versions of some publications	2
Do not have a library account	2
Poor internet connectivity	2
Comfortable with using print resources and study guides	1
Not comfortable with reading on the screen	1
Answered Question	23

4.2.18 Overcoming barriers to using e-resources by students

Having identified the major barriers that prevented students from using e-resources, the respondents were asked how they would overcome the barriers. The majority 29.2% (n=38) of the 130 respondents to this question suggested that they should seek for more information on how to access e-resources, followed by 16.9% (n=22) who felt they needed better time management skills to overcome the barriers they had in using electronic library resources. The other suggestions put forward by respondents to overcome barriers to the use of electronic resources include investing in technology by 11.5% (n=15); change of attitude by 10% (n=13); source financial support and attend information literacy trainings by 6.2% (n=8) each of the respondents; look for other information sources by 4.6% (n=6) and set up a library account and better planning by 2.3% (n=3) each of the respondents. The results are reflected in Table 22.

Table 22: Overcoming barriers to student access to and use of e-resources

Answer options	Response %	Response count
Seek information on how to access and use resources	29.2	38
Better time management	16.9	22
I don't know	10.8	14
Invest in technology	11.5	15
Change attitude	10.0	13
Source financial support	6.2	8
Attend information literacy training workshops	6.2	8
Look for other sources of information	4.6	6
Set up a Unisa Library account	2.3	3
Better planning	2.3	3
Answered Question		130

4.2.19 Overcoming barriers to access of e-resources by Unisa

When asked how Unisa could assist them in overcoming barriers to access and use of electronic library resources, respondents came up with a number of recommendations, which are highlighted in Table 23, in order of importance.

Most (26.7%) of the 135 respondents felt that Unisa needed to do more to publicise available e-resources to the students and to inform students on how best they could use the e-resources. 15.6% (n=21) of the students felt that the current library e-resources collection did not cover their courses and suggested that Unisa should balance its e-resource collection to cover a wider range of courses. 12.6% (n=17) of the respondents felt the Unisa Library portal was not easy to work on; hence they suggested Unisa Library create a more user-friendly platform. Another 12.6% felt Unisa Library should provide students with cheaper data deals as they needed internet access to access most of Unisa electronic library resources. 5.2% (n=7) indicated that Unisa Library staff should be more responsive to user requests. 3.7% (n=5) suggested that Unisa Library negotiates with suppliers of laptops and related technologies to enable students to get cheaper technologies.

The other suggestions to Unisa put forward by the students were that Unisa Library offers face-to-face and online library assistance services in all branch libraries, extension of

library opening hours, encouraging tutors to include e-resources lists in student assignments, providing more face-to-face and online information literacy training workshops, building of branch libraries in areas with no branch libraries, entering into consortium to enable sharing of e-resources, research outputs and computers, creation of an e-resources access library application, sensitising library staff about the available e-resources, providing an information literacy module to all first-year students, providing more computers for student use in libraries, making it possible for all registered students to access the library portal without need for registering, offering affordable library subscription, creating bigger working space for students in libraries and increasing the number of information centres. All the suggestions are listed in Table 23.

Table 23: Ways in which Unisa can help to overcome barriers to e-resources access and use

Answer option	Responses	Response %
Publicize e-resources more and advise students on how to effectively use the resources	36	26.7
Increase e-resources subscriptions and make sure the adequate resources for all Unisa courses	21	15.6
Create a more user-friendly library portal	17	12.6
Providing cheaper and accessible Internet deals for Unisa students	17	12.6
Library staff should be more responsive to user requests	7	5.2
Provide students with affordable laptops	5	3.7
Offer face to face and online library assistance services in all branch libraries	4	3.0
Extend library hours	4	3.0
Encourage tutors to include e-resources lists in student assignments	4	3.0
Provide more face to face and online information literacy training workshops	4	3.0
Build branch libraries in areas with no branch libraries	3	2.2
Enter into a consortium to enable sharing of information resources, research outputs, and computers	2	1.5
Create an e-resources access library app	2	1.5
Sensitize library staff about the e-resources	2	1.5
Provide an information literacy module to all first-year students	2	1.5
Provide more computers for student use in libraries	1	0.7

Answer option	Responses	Response %
Make it possible for all registered students to access the library portal without the need for registering	1	0.7
Offer affordable library subscription	1	0.7
Create bigger working space for students in libraries	1	0.7
Increase the number of information centres	1	0.7

4.2.20 Purpose of use of e-resources

Students were asked to indicate the main purpose of using e-resources. The majority (87%) of the students used e-resources for study, followed by 76.4% (n=123) who used e-resources for research. Only 29.8% (n=48) and 22.4% (n=36) respectively indicated that they used e-resources for current awareness and general browsing respectively. The results are reflected in Figure 12.

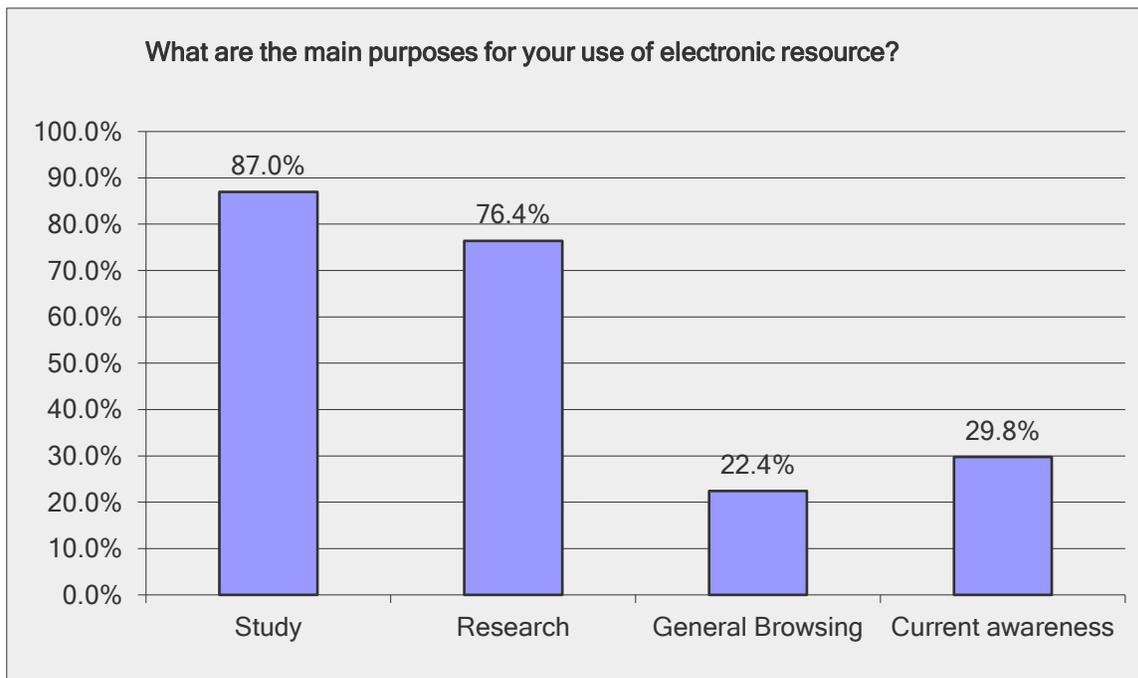


Figure 12: Purpose of use of e-resources

4.2.21 E-resources use

When asked whether they had used e-resources before, 72.2% (n=117) of the 162 respondents indicated that they had used e-resources and the remaining 27.8% (n=45) had never used e-resources. Figure 13 shows the number of students who have used e-resources compared to those that have never used e-resources.

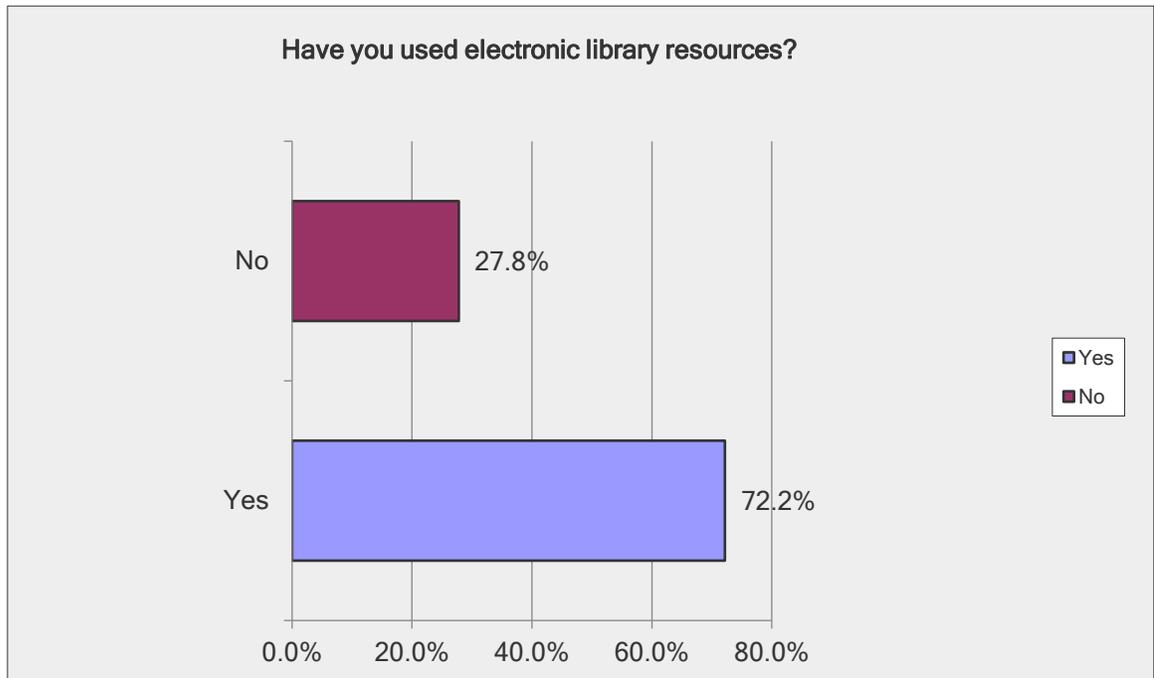


Figure 13: Use of E-resources

4.2.22 Frequency of use of the resources

Students who indicated that they were using e-resources were asked to indicate the frequency at which they used the resources. One hundred and fifteen responses were received for this question and most (36.5%) of them indicated that they were using the resources weekly and monthly. The other 19.1% (n=22) and 7.8% (n=9) indicated that they used e-resources annually and daily respectively. The responses are reflected in Table 24.

Table 24: Frequency of use of Unisa e-resources

If you have answered 'YES' to question 19 above, How often do you use the resources?		
Answer Options	Response Percent	Response Count
Daily	7.8%	9
Weekly	36.5%	42
Monthly	36.5%	42
Annually	19.1%	22
Answered question		115
Skipped question		50

4.2.23 Request for assistance in accessing e-resources

When asked if they requested assistance in accessing e-resources, 91.1% (n=143) of the 157 respondents indicated that they accessed the resources by themselves, without any assistance.

4.2.24 Main sources of information

Students were asked to indicate their main sources of information between Unisa electronic library resources, search engines and websites of other universities. The majority (68.6%) of the 156 respondents indicated that search engines were their main source of information, followed by 24.4% (n=38) indicating that they used electronic library resources as their main sources of information. The remaining 7.1% (n=11) indicated that they used websites of other universities as their main source of information. Table 25 shows the results to this question.

Table 25: Main sources of information

Which are your main sources of information?		
Answer Options	Response Percent	Response Count
Electronic library resources	24.4%	38
Search engines	68.6%	107
Websites of other Universities	7.1%	11
Answered question		156
Skipped question		9

4.2.25 E-resources preference

From the e-resources listed on the Unisa Library website, the students were asked to select the resource they preferred using most. Out of the list, e-books were selected as the most preferred e-resources by 76.7% (n=122) of the respondents, followed by electronic journals by 68.6% (n=109); e-reference sources by 38.4% n=61; e-theses and dissertations 37.1% (n=59); e-media by 30.2 (n=48); electronic newspapers by 29.6% (n=47); bibliographic databases and e-government publications 27% (n=43) each and e-digital collections by 24.5% (n=39). The least preferred formats of e-resources were e-statistical sources, e-zines, and CD-ROM databases. The results are represented in Table 26.

Table 26: E-resources format preference

Answer Options	Response Percentage	Response Count
Electronic books	76.7%	122
Electronic journals	68.6%	109
E-Reference sources	38.4%	61
E-thesis and dissertations	37.1%	59
E-Media(image, sound, video) collections	30.2%	48
Electronic newspapers	29.6%	47
Bibliographic databases	27.0%	43
E-government publications	27.0%	43
E-digital collections	24.5%	39
E-statistical sources	11.3%	18
E-zines	11.3%	18
CD ROM databases	10.1%	16
Other (please specify)	4.4%	7
Answered question		159
Skipped question		6

4.2.26 E-resources training

The students were asked whether they had received e-resources training. One hundred and thirty-one (81.4%) indicated that they had not received training, whereas the remaining 18.6% (n=30) indicated that they had received training. The results are summarised in Table 27.

Table 27: E-resources training

Answer Options	Response Percent	Response Count
Yes	18.6%	30
No	81.4%	131
Answered question		161
Skipped question		4

4.2.27 Need for training

The students were asked to indicate whether they felt there was a need for them to get e-resources training. As shown in Figure 14, the responses to this question were balanced with 50.3% (n=81) indicating that they did not need training on the use of e-resources and the remaining 49.7% (n=80) indicating that they did need training.

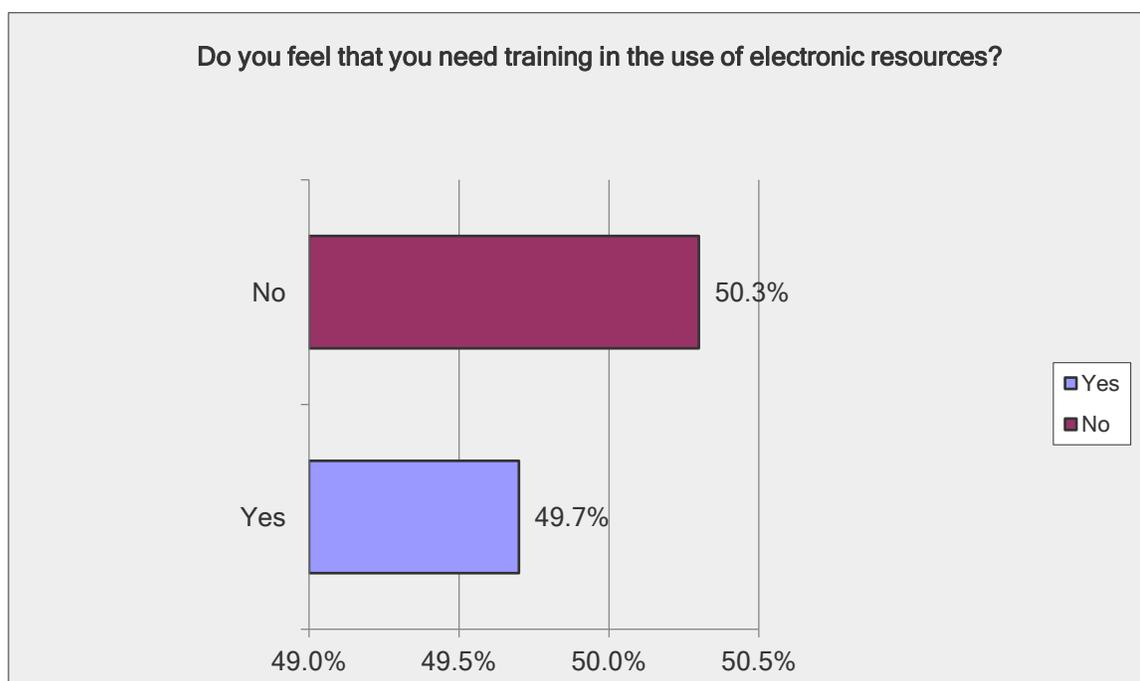


Figure 14: Need for training

4.2.28 Training needs

Students that needed training were asked to identify the type of training they needed and the majority (69.1%) of the respondents indicated that they need training on online public access catalogue followed by 61.7% (n=50) that need training in information retrieval

skills. The remaining 40.7% (n=33) and 29.6% (n=24) needed training in online searching and basic IT skills respectively. The graph in Figure 15 summarises the findings.

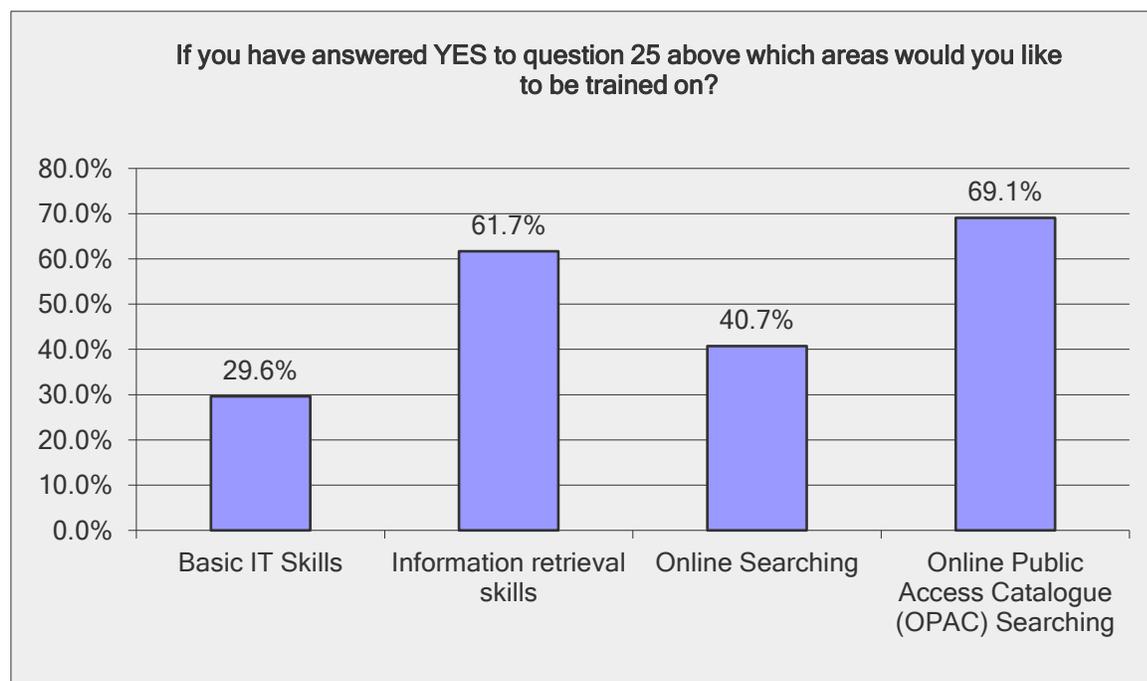


Figure 15: Training topics

4.2.29 User experience with Unisa electronic library resources portal

The students were asked to specify how easy it was to use Unisa electronic library resources portal on a scale of 1–5, with 1 being very difficult and 5 being very easy. One hundred and sixty responses were gathered from this question. Most of the respondents (43.8%) felt Unisa electronic library resources portal was moderate to use. Thirty-three percent (n=53) reported that the use of the Unisa e-resources portal was very easy and easy. The remaining 23.2% (n=37) indicated the use of electronic library resources portal as very difficult and difficult. The results are presented in Table 28.

Table 28: Ease of use of the Unisa Library Portal

Answer Options	Response Percentage	Response Count
1 – Very difficult	11.9%	19
2 – Difficult	11.3%	18
3 – Moderate	43.8%	70
4 – Easy	20.6%	33
5 – Very easy	12.5%	20
Answered question		160
Skipped question		5

4.2.30 Recommendations to Unisa to increase usage of electronic resources

The last question sought to obtain recommendations from students on what they felt Unisa Library should do to increase usage of electronic resources. One hundred and forty responses were recorded on this question. The majority (28.6%) of these responses suggested that the Unisa Library should publicise the e-resources more and advise students on the effective use of these resources. Twenty-one percent each of the respondents recommended that Unisa Library should create a more user-friendly platform and offer regular face-to-face and online training workshops on the use of e-resources. The other recommendations and respondents percentages are presented in Table 29.

Table 29: Recommendation for the Unisa Library to increase the use of e-resources

Response	Response Percentage	Response Count
Publicise e-resources more and advise students on how to effectively use the resources	28.6	40
Create a more user-friendly library platform	20.7	29
Offer regular online and face to face trainings on how to use Unisa electronic resources	20.7	29
Increase e-resources subscriptions and make sure the adequate resources for all Unisa courses	9.3	13
Provide more computers with free internet access for student use in libraries	3.6	5
Provide library instructions and guides in the form of videos and links in Tutorial Letter 101	3.6	5
Providing cheaper and accessible Internet deals for Unisa students	2.9	4
Appoint Information search librarians for each school and provide students with their contact details	2.1	3
Encourage tutors to include e-resources lists in student assignments	2.1	3
Provide students with affordable laptops	1.4	2
Pick up the phone to assist library users with library queries	1.4	2
Create an e-resources access library app	1.4	2
Provide e-resources training to all first-year students	1.4	2
Extend library hours	0.7	1
Answered question		140
Skipped question		25

4.3 Librarian questionnaire findings

The librarian questionnaire was sent to a total of 22 library staff members of whom seven were Search Librarians from the Unisa Muckleneuk Campus; seven were library staff members from the Cape Town Branch Library, one each from Sunnyside, East London, Johannesburg, Florida, Polokwane, Ekurhuleni, Nelspruit and Pietermaritzburg branch libraries and 41% (n=9) responded to the survey.

Only one of the Information Search Librarians responded to the survey and two indicated that they could not respond to the survey because most of the questions were branch specific, the remaining four did not respond to the survey and neither did they respond

to the researcher’s email. In order to ensure a high response rate, two follow-ups were made by using email and telephone. The survey was left open for two months (1 August 2016 – 31 September 2016), the same period with the Student survey. After closing the survey, the data was cleaned to remove inconsistent data and it was arranged and coded in a sequence that would make analysis easier.

4.3.1 Responses per branch library

Unisa Library has 13 branches, namely Muckleneuk, Sunnyside, East London, Johannesburg, Florida, Nelspruit, Durban, Cape Town, Rustenburg, Polokwane, Akiki, Ekurhuleni, and Pietermaritzburg. From the 22 questionnaires sent out to the sample, nine respondents from six branch libraries took part in the survey. The majority 44.4% (n=4) of the respondents were from the Cape Town branch library, followed by 11.1% (n=1) each from Muckleneuk, Sunnyside, East London, Johannesburg and Florida branch libraries. Librarians from Nelspruit, Durban, Rustenburg, Polokwane, Akiki, Ekurhuleni, and Pietermaritzburg did not participate in the survey. Table 30 shows the number of respondents per branch library and the percentage distribution.

Table 30: Distribution of librarian respondents

Answer Options	Response Percent	Response Count
Muckleneuk	11.1%	1
Sunnyside	11.1%	1
Nelspruit	0.0%	0
East London	11.1%	1
Durban	0.0%	0
Rustenburg	0.0%	0
Polokwane	0.0%	0
Akiki (Ethiopia)	0.0%	0
Cape Town	44.4%	4
Ekurhuleni	0.0%	0
Johannesburg	11.1%	1
Florida	11.1%	1
Pietermaritzburg	0.0%	0
Answered question		9

4.3.2 Librarian job title

The majority (55.6%) of the respondents were branch librarians and 11.1% (n=1) each, were Information Search Librarian, Senior Branch Librarian, Junior Librarian and Mobile Library Driver and Library Assistant.

The job titles of the respondents are represented in Figure 16.

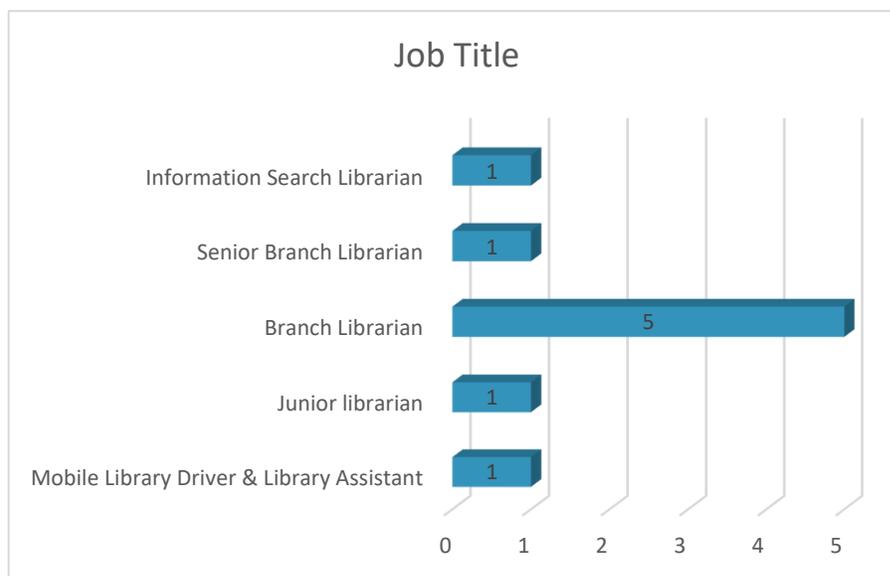


Figure 16: Respondents' job titles

4.3.3 Types of electronic resources available to students

This question sought to establish the types of electronic library resources Unisa Library had in place for students. The respondents listed the following as the list of e-resources available for students: e-books, e-journals, e-thesis and dissertations, e-newspapers, e-zines, e-reference sources, e-bibliographic databases, e-reserves and online public access catalogue.

4.3.4 Initiatives to inform students about the e-resources

The library staff were asked if the library informed students about the availability of these resources and types of initiatives available in the library to inform students. Ninety percent (n=8) of the nine respondents to the survey indicated that the Unisa Library informed students about the availability of electronic library resources. The main

initiatives that were used included face-to-face training sessions, the library website, the online public access catalogue, MyUnisa platform and library guides. One of the respondents explained that the main e-resource that the library promoted more was electronic reserves, as they contain most of the students' prescribed and recommended reading material.

4.3.5 Provision of e-resources training

The respondents were asked to indicate whether the university provided training on the use of e-resources for students and the frequency of these trainings. All nine respondents to the survey indicated that the library offered training on the use of e-resources to students. In response to the section on the frequency of the training, the respondents indicated that Cape Town, Johannesburg and Sunnyside libraries ran an average of four to six e-resource training sessions each month, while Florida and the Muckleneuk libraries ran an average of two to four training sessions each month. The East London Library indicated they ran at least one e-resource training session per month.

4.3.6 Number of computers available for accessing the internet by students

This question sought to establish the number of computers that were available in each branch library with internet connection that were reserved for use by students. The responses gathered indicated that there were 126 computers at the Sunnyside branch library; nine at East London; 50 at Cape Town; 16 at Florida and 12 at the Johannesburg branch library. The respondent from the Muckleneuk campus library skipped this question. The responses are summarised in Table 31.

Table 31: Number of computers available at Unisa branch libraries

Library	Number of Computers
Sunnyside	126
East London	9
Cape Town	50
Florida	16
Johannesburg	12

4.3.7 Access to a computer/workstation

This question sought to establish whether users needed to reserve access to use computers or workstations at branch libraries. Eight (88.9%) of the nine respondents to this question indicated that users were not required to reserve workstations, whereas the remaining 11.1% indicated that users are required to reserve access to a computer.

The second part of this question sought to find out how difficult it was to reserve access to a computer from those that had answered that users needed to reserve access to computers in the library. The one respondent, who had answered, indicated that access for a sufficient period of time could sometimes be difficult, as access to computers is on first come first serve basis.

4.3.8 Procedure for reserving access to computer/workstation

Respondents who had indicated that users needed to reserve access to use a computer were asked to describe the procedure used to reserve access. There was one respondent to this question, who indicated that the library used a manual system whereby students who needed to use computers leave their student cards at the library counter and computers were allocated by using numbers. The library had looked into acquiring an electronic booking system so that students could book their session remotely, but had failed to do so due to budget constraints.

4.3.9 Use of the library information technology resources

When asked to indicate if the library's information technology resources were used to the maximum capacity, the majority (66.7%) of the respondents indicated that the library information technology resources were not being used to their maximum capacity, while the other 33.3% (n=3) felt otherwise. The responses are presented in Table 32.

Table 32: Use of the library information technology resources

Answer Options	Response Percentage	Response Count
Yes	33.3%	3
No	66.7%	6
Answered question		9
Skipped question		0

4.3.10 Availability of printing services in libraries

Library staff members were asked if users could print downloaded articles in the libraries. Six (66.7%) of the nine respondents indicated that users could print downloaded articles in the library and the remaining 33.3% (n=3) indicated otherwise. The responses are presented in Table 33.

Table 33: Availability of printing services in libraries

Answer Options	Response Percentage	Response Count
Yes	66.7%	6
No	33.3%	3
If yes: do they have to pay?		5
Answered question		9
Skipped question		0

4.3.11 Printing costs

As a follow-up question to the question on the availability of printing services in the library, this question sought to determine if there was a cost attached to printing services from respondents who had indicated that there were printing facilities in their branch libraries. There were five responses to this question and all five indicated that there was a cost attached to printing services. Two of the five went further to disclose the cost of printing services was 50c and 55c per page.

4.3.12 Ability to save downloaded articles on external media

When asked if the library users could save the downloaded articles on their own external media, 8 (88.9%) of the 9 respondents to the survey indicated that users had the permission to save downloaded articles on their own external media.

4.3.13 Measures available to promote the use of e-resources

All nine (9) respondents to this survey listed a number of initiatives available in Unisa Library to promote the use of e-resources. The initiatives available included:

- Information literacy workshops advertised on the Unisa Library website, although some respondents indicated that the workshops were poorly attended, citing the reasons such as the courses not being accredited;

- Marketing by using posters, brochures, the library website, SMS, library information display boards, myUnisa portal, myStudies, Unisa Library @ a Glance, myUnisa course sites (set up by the Personal Librarians), the LibGuides on the Library home page, social media (e.g. Legal e-Resource of the month is posted on the library Facebook page);
- Students, who visit or call the library for assistance on the use of e-resources, get one on one interaction with the librarian;
- Document delivery services;
- Advising lecturers to include some e-resources as part of the prescribed reading material for their courses;
- Instructional material (when available) linked to the lists of subject databases on the library website;
- Podcasts (put together by the Personal Librarians);
- Displays in the foyer of the library sometimes promote certain electronic resources;
- Subscription to Encore Duet, the federated search engine that allows students to search across the Library Catalogue and selected multiple databases from one, Google-like search interface, which promotes access to a wide range of resources although not all the major databases per subject area are covered; and
- The 'Find e-journals' search option on the Library home page is helpful in promoting access to online journals.

4.3.14 Record of students who use the e-resources at the library

Ninety percent (n=8) of the respondents indicated that their branch libraries kept a record of students who used e-resources at the library.

4.3.15 Average number of library staff available to assist users with literature searches

All the nine respondents to the survey responded to this question. There is a total of seven, instead of 14, information search librarians at the Muckleneuk campus library, who serve online literature search requests from Unisa staff and both undergraduate and postgraduate students. Online literature requests forwarded to the Information Search

Librarians are attended to on a first-come-first-serve basis. However, they make room for urgent requests at Muckleneuk and Sunnyside campus libraries. There are five library staff members at Cape Town Campus library; two each at Sunnyside, Florida, and Johannesburg Campus libraries and one at East London library to assist users with literature searches.

4.3.16 User assistance

This question sought to establish if the library staff assisted users with acquiring information from the Unisa electronic library resources portal and the frequency with which they did so. All eight respondents indicated that they obtained information for users. The section of frequency and date when they had last obtained information for students was responded to by seven librarians. As indicated in Table 34, all seven librarians indicated that they obtained information for students on a daily basis.

Table 34: Frequency of user assistance

Answer Options	Response Percentage	Response Count
Daily	100.0%	7
Weekly	0.0%	0
Monthly	0.0%	0
Annually	0.0%	0

4.3.17 Barriers to access

On a scale of 1–5, 1 being “not important” and 5 being “very important”, the librarians were asked to rate the barriers that they perceived prevented students from accessing and using electronic library resources basing on their experience. The respondents rated “competition for internet access with other users” and “lack of time to do online resources searches by the students” as the biggest barriers to access of electronic information resources, with average ratings of 3.78 and 3.56 respectively. “Problems with access to publishers’ websites user-friendliness of databases” received a rating of 3.22, followed by “lack of access to computers” and “issue of usernames and passwords challenges related to log-in” which received average ratings of 3.11 and 3.00 respectively. “Too few library staff available to assist users with access” and “slowness of response turnaround

time when requesting resources” each received average rating of 2.67. “Cost of internet access” was considered as the least important barrier with an average rating of 2.33. The other barriers that the librarians felt hindered students from accessing e-resources were “library opening and closing hours which was not favourable to working students”, “poor information literacy skills” and “lack of standard interface on the electronic information resources”. Table 35 summarises the findings in order of importance.

Table 35: Most important barriers preventing students from using e-resources

Answer Options	1	2	3	4	5	Rating Average	Response Count
Competition for internet access with other users	0	2	2	1	4	3.78	9
Lack of time to do online resources searches by the students	1	0	2	5	1	3.56	9
Problems with access to publishers' websites user-friendliness of databases	0	3	3	1	2	3.22	9
Lack of access to computers	2	1	1	4	1	3.11	9
The issue of usernames and passwords challenges related to log-in	0	4	2	2	1	3.00	9
Too few library staff available to assist users with access	2	2	3	1	1	2.67	9
Slowness of response turnaround time when requesting resources	2	2	2	3	0	2.67	9
Cost of internet access	4	0	3	2	0	2.33	9
Other (please specify)							2
Answered question							9

4.3.18 Recommendations to Unisa Library to promote the use of e-resources

The last question in the questionnaire sought to establish if the librarians thought the Unisa Library was doing enough to promote the use of e-resources and, if not, recommend ways that would promote the use of e-resources by students. As reflected

in Figure 17, six (66.7%) of the respondents felt Unisa was doing enough to promote awareness and usage of e-resources while the remaining 33.3% (n=3) felt otherwise.

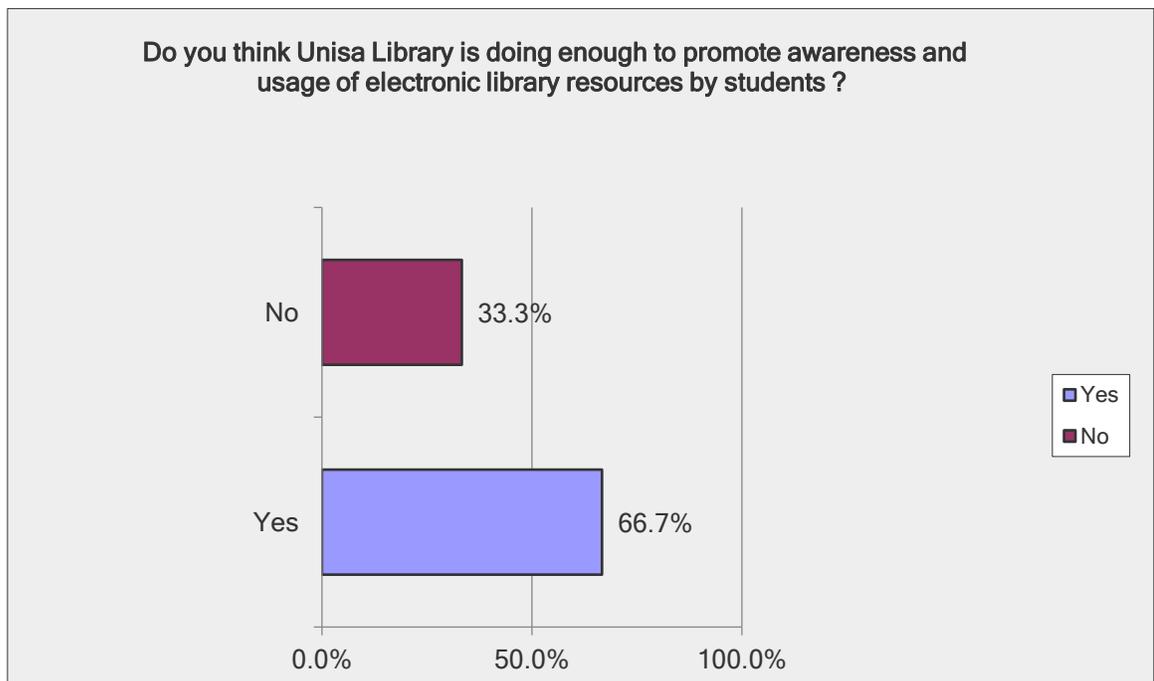


Figure 17: Is Unisa Library doing enough to promote awareness and access of e-resources

The following recommendations were put forward by the librarians:

- Impose compulsory attendance of information literacy training for students and to also provide the trainings online;
- Market the e-resources vigorously in tutorials and lectures, e.g. Tutorial letter 101;
- Accreditation of the information literacy training so students may appreciate the value of engaging in the trainings;
- Reach out to students through the undergraduate student body; and
- Create subject-specific visual “maps” of the resources relevant to a particular field and indicate where to find them and where to find help.

4.4 Discussion of findings

This section discusses the findings above in line with the study objectives and questions. The main topics for this section are as listed below:

- Types of electronic library resources available to students;

- Measures available in the Unisa Library to influence awareness and use of e-resources by students;
- Awareness levels of electronic library resources by students;
- Competence levels of Unisa students in using e-resources;
- Purpose and extent of use of electronic resources by students;
- Barriers faced by students in accessing and using e-resources; and
- Recommendations to Unisa Library to increase use of e-resources by students.

4.4.1 Types of electronic library resources available to students

From the information gathered through the librarian questionnaire, Unisa offers a number of services and e-resources types to its users. The electronic resources available for Unisa Library users include e-books, e-journals, e-thesis and dissertations, e-newspapers, e-zines, e-reference sources, e-bibliographic databases and the online public access catalogue. These findings corroborate the findings of several authors on the types of electronic library resources used in academic libraries (Amjad, Ahmed & Naeem 2013; Bhatia 2011; Burich 2004; Egberongbe 2011; Oyewo & Bello 2014).

4.4.2 Measures available in Unisa Library to influence awareness and use of e-resources by students

The findings from both the student and librarian surveys revealed a number of initiatives available in the Unisa Library to create awareness and to encourage the use of the e-resources. Ninety percent of the librarian respondents indicated that the Unisa Library informed students about the availability of electronic library resources. This is corroborated by findings from the student surveys, which revealed that 53.4% of the student respondents had received announcements on Unisa electronic Library resources.

The awareness initiatives available in the Unisa Library for promotion of electronic library resources included marketing of e-resources through the Unisa Library website, myUnisa platform, SMS service, library information display board, library guides, e-reserves, online public access catalogue, posters, brochures, myStudies, Unisa Library

@ a Glance, myUnisa course sites, LibGuides, social media, specialised school librarian and displays in the foyer of the Library. These initiatives corroborate with initiatives available in other academic institutions worldwide as reported by several other authors (Hermosa and Anday 2008, Nicholas and Tomeo 2005, Oyewo and Bello 2014, Snyder, Carter and Hostetler 2008).

Apart from awareness initiatives, the Unisa Library also has a number of initiatives in place to promote access and use of these resources. These initiatives include: the provision of technologies for users who can visit the library; face-to-face training workshops to equip users with the skills needed to effectively use electronic library resources; user library assistance services; the possibility of downloading articles from the library and storing them on external hard drives; the availability of printing services in the library at a minimal cost; document delivery services; advising lecturers to include e-resources as part of the prescribed reading material for their courses; instructional material that is linked to the lists of subject databases on the library website; podcasts; subscription to Encore Duet and the 'Find e-journals' search option on the library home page.

The finding that the Unisa Library offers information literacy training workshops was supported by information found on the Unisa Library website training page (Unisa Library 2017). Timetables of the branch library training were also available on this page, which also corroborates the information supplied by the librarians on the frequency of the trainings at each branch library. Although the branch libraries offer information literacy training workshops, some of the librarians felt that the information literacy courses were not well attended, as supported by data from the student questionnaire that established that 81.4% of the respondents had not attended any information literacy training.

The findings also revealed that most of the branch libraries have computers with internet access for use by students. There are 126 computers at the Sunnyside branch library; nine at East London; 50 at Cape Town, 16 at Florida and 12 at the Johannesburg branch library. There is no need to reserve access computers in most libraries and access to

the computers is usually on a first-come-first-serve basis. Although there are various technologies available to students to promote access and use of the e-resources, the majority (66.7%) of the librarian respondents indicated that the library information technology resources were not being used to their maximum capacity.

From these findings, it can be concluded that Unisa has a wide number of initiatives to promote awareness and usage of electronic library resources. However, some of these initiatives are not being fully utilised by students, as evidenced by the data supplied by the librarians that the information literacy training workshops were not well attended and the majority (66.7%) of the respondents indicating that the library information technology resources were not being used to their maximum capacity. This is further supported by data from the student questionnaire that established that 81.4% of the respondents had not attended any of the information literacy courses. The number of librarians that assist users with face-to-face and online information searches is also very low and does not correspond with the student enrolment of more than 400 000 students. There is a total of seven, instead of 14, Information Search Librarians at the Muckleneuk campus library, who serve online literature search requests from Unisa staff and both undergraduate and postgraduate students.

4.4.3 Awareness of electronic library resources by students

Although the previous section indicates that there is a number of initiatives to promote awareness and use of e-resources at Unisa, the findings from the student questionnaire revealed that large numbers of students unaware of the e-resources available in the Unisa Library. When asked if they had received announcements about Unisa electronic library resources, the majority, eighty-seven (53.4%) of the 163 students respondents indicated that they had not. Most (56.5%) of the student respondents also pointed out that their studies had been affected by lack of academic information. The question of whether students were aware of Unisa electronic resources also shows that, although almost half of the students were aware of these resources, the other half were not aware of the e-resources. The majority (82.2%) of the students' respondents also indicated that they did not know the School of Arts Subject Librarian.

The question of whether students had set up library accounts to enable them to access and use the Unisa electronic library resources also established that 42.9% of the respondents had not set up library accounts and. Furthermore, 67.7% (n=44) of these respondents indicated that they had not set up the library accounts due to lack of awareness.

The majority (68.6%) of the students also indicated that they used search engines as their main source of information, compared to only 24.4% who indicated that they used electronic library resources as their main sources of information. This could be translated to the reason for the majority of students using search engines rather than e-resources –is lack of awareness of e-resources. The lack of awareness was also cited by most students as one of the main barriers preventing them from using Unisa e-resources more than they were doing. These findings corroborate with findings of related studies by Damilola 2013; De Rosa et al. 2005 and Kelley and Orr 2003. Kelley and Orr (2003) attributed the low levels of awareness in distance learning undergraduate students to the fact that students were widely dispersed and, therefore, their knowledge of library services was quite limited.

When asked to supply recommendations that Unisa could make the students use e-resources more than they were doing, most of the students recommended that Unisa Library publicise e-resources more and advise students the effective use of the resources. These findings show that having a number of awareness initiatives in place in itself is not enough: the Unisa Library needs to do more to ensure that the message on e-resources gets to the intended audience and that the purpose of the message is realised.

4.4.4 Competence levels of students in using e-resources

E-resources can only be accessed with the aid of a computer device and without basic ICT skills, it will be difficult for one to access the e-resources. In an effort to determine the competence levels of students in the use of electronic library resources, several

questions were posed in both the librarian and students questionnaires. A question was posed to the students to determine their general ICT knowledge to which the majority (44.2%) and 38.7% rated their knowledge of ICT as good and very good respectively, while only 17.2% rated their ICT knowledge as average. These results show that most of the students can use ICTs without any difficulty and, therefore, the lack of ICT knowledge had no effect on the non-use of e-resources by students. To support this finding, 72.2% of the survey respondents indicated that they had used e-resources at some point. These findings corroborate with the findings of a study on the Unisa Department of Information Science students' perceptions of e-learning by Ncube (2015), which established that 96% of the students were computer literate, as evidenced by their positive attitude in using the myUnisa e-learning platform.

The majority (91.1%) of the student respondents also indicated that they accessed e-resources on their own, without the aid of the librarians, which could be attributed to the fact of Unisa being a distance learning institution where students are used to independent learning methods. The results also show that most (75.8%) students are quite competent in the use of the Unisa online platform in accessing e-resources.

When asked whether they had received training on the use of e-resources, 81.4% of the respondents indicated that they had not received training. However, when asked if they needed training on the use of e-resources 49.7% (n=80) indicated that they needed training. 69.1% of the respondents indicated that they need training on online public access catalogue (OPAC); 61.7% (n=50) needed training in information retrieval skills; 40.7% (n=33) in online searching and only 29.6% (n=24) needed training in basic IT skills.

The need for information literacy training by the majority of the student respondents support the recommendations by several authors that information literacy skills are critical to enable users to identify an information need and locate, evaluate and effectively use the information (George & Frank 2004; Chirra & Madhusudhan 2009; Kennedy 2011; Shuling 2007). The student respondents were also asked if they knew

the School of Arts Subject Librarian, to which the majority (86.3%) indicated they did not. This could be interpreted as meaning that students felt their competency levels in the use of electronic library resources were high and, therefore, they required no assistance from the librarian or that they were simply not aware of a dedicated Subject Librarian for their School.

Most of the respondents (43.8%) felt that the Unisa electronic library resources portal was x easy to use; 12.5% (n=20) and 20.65 (n=33) reported that the use of the Unisa e-resources portal was very easy and easy respectively. The remaining 11.9% (n=19) and 11.3% (n=18) indicated that the use of the electronic library resources portal was very difficult and difficult.

From the above findings, it can be concluded that the majority of the students have the knowledge of using ICTs that allow them to access and use Unisa electronic library resources. However, they needed training in the use of the OPAC, information retrieval skills and online searching, so as to be able to utilise the Unisa electronic library resources fully. These results corroborate the findings of Obasuyi and Usifoh (2013), who established that computer literacy had more influence on the use of e-resources than information literacy. Although the majority of the Unisa third-year School of Arts students need information literacy lessons to use e-resources fully, their high computer skills and competencies enable them to use e-resources.

4.4.5 Purpose and extent of use of electronic resources by students

Several questions were posed to both the students and librarians, in an effort to determine purpose and frequency of use of e-resource. In order to use a service or a product, the importance of the service or product should first be realised. To this regard, the students were asked whether they perceived access to electronic library resources as important. As reflected in the findings above, the majority of the respondents 66.9% and 19% felt accessing electronic library resources was very important and important. This corroborates the findings of the OCLC and the study by Gakibayo and Okello-Obura (2013), where the majority of participants agreed, completely agreed or agreed that e-

resources were important for their studies (De Rosa et al. 2005). A study on Unisa Department of Information Science students by Ncube (2015) also established that 98% of the students were positive about e-learning content. However, these findings contradict the opinion of Waithaka (2013), who feels that students do not use e-resources for academic purposes, because they may not realise the full value of these resources have in their studies and research. The majority of the respondents (88.9%) also indicated that they were willing to use electronic library resources more than they were doing, thereby stressing the importance of access to electronic library resources to students.

Further, students were asked to rank the usefulness of different types of e-resources and e-theses and dissertations emerged as being perceived as the most useful e-resources, with an average rating of 3.31, followed by e-newspapers and e-magazines, which each received average ratings of 3.26; then bibliographic databases, with an average rating of 3.06%. Publisher's journal archives were rated at 2.99 and full-text abstracting and indexing databases were rated at 2.90. The resources that were perceived to be less useful were publisher's journal collections, e-reference sources and e-book collections, which each received respective average ratings of 2.83, 2.80 and 2.78.

In order to access Unisa electronic library resources, students need to create a library user account, after which they get a username and password that they use to access the different resources. The participants were asked if they had set up online library accounts on the Unisa Library portal and 57.1% of the 163 respondents to this question indicated that they had set up a library account, while the remaining 42.9% indicated they had not. These results are an indication of the majority of the students being willing to use the Unisa Library resources; hence the setting up of library portal accounts.

4.4.5.1 Purpose

The study established that the majority (87%) of the students use e-resources for study, followed by 76.4% who use e-resources for research. Only 29.8% and 22.4% respectively indicated that they use the e-resources for current awareness and general browsing respectively. These findings corroborate findings of other authors on the same

subject (Banwell et al. 2004; Chirra & Madhusudhan 2009; Lawrence & Raja 2012; George & Frank 2004; Damilola 2013).

4.4.5.2 Use of e-resources

Having identified the purpose for which they used the e-resources, respondents were asked to identify their main sources of information between the Unisa electronic library resources, search engines and websites of other universities. The majority (68.6%) of the 156 respondents identified search engines as their main source of information, followed by 24.4% (n=38) indicating that they used electronic library resources as their main sources of information. The remaining 7.1% (n=11) indicated that they used websites of other universities as their main source of information.

4.4.5.3 Frequency

The first part of the question on the frequency asked respondents, who had indicated that they used e-resources, to indicate the frequency with which they used the resources. One hundred and fifteen responses were received for this question and most (36.5%) of them each indicated that they were using the resources weekly and monthly. The other 19.1% (n=22) and 7.8% (n=9) indicated that they used e-resources annually and daily respectively.

The second part of the question drilled down to the use of specific e-resources for academic information over the past three months. When asked how frequently they had used different types of e-resources for academic purposes over the past three months, most of the respondents indicated that they favoured using the World Wide Web, with an average rating of 4.64%, followed by electronic library resources that received an average rating of 3.07%. Personal library collections, the Unisa Library print materials and colleagues in other universities were the least favoured sources of academic information with respective average ratings of 2.80%, 2.53 and 1.70%.

These findings show that Unisa third-year School of Arts students have a positive attitude towards e-resources, as most of them felt accessing e-resources was quite important. Most of the respondents would want to use the resources more than they were currently

doing. Most of the students used e-resources for study and research and they preferred using e-resources found through general search engines to using Unisa electronic resources and those found on websites of other universities. This is further supported by evidence that shows that the majority of the students used information found from the World Wide Web more frequently as compared to the other sources of information, which corroborates with findings from similar studies done over the years in different countries (Banwell et al. 2004; Callinan 2005; Joo & Choi 2015; Martin 2008). Although almost 81% of the respondents indicated that they used e-resources daily, weekly and monthly, the other 19% only used e-resources annually. This calls for the Unisa Library to do more to ensure users are aware and use e-resources more often.

4.4.6 Barriers faced by students in accessing and using e-resources

Both the students and librarians were asked to rank the challenges preventing users/students from fully using e-resources, in sequence of importance. From the findings reported from the students' perspective, the four main barriers that hindered them from accessing and using e-resources were: the cost of access to the internet; the unavailability of relevant literature for studies; lack of time to do online searches and preference for information freely available on the internet. The speed of internet; poor information search skills; unavailability of some to assist with internet access; preference for print resources and lack of awareness were rated as moderate barriers to access and the use of e-resources by the student respondents. Lack of computers; information overload; problems with usernames and passwords; no electronic versions of some publications; no library accounts; poor internet connectivity; discomfort with reading on the screen and comfortable with using print resources and study guides were considered as minor barriers to access and use of e-resources. The results also show that the majority of students paid for internet connectivity and access, paper and printing facilities and the cost attached to these services prevented quite a significant number of students from accessing and using electronic library resources, thereby creating a barrier. A substantial number 45.1% and 41.1% of the student respondents indicated that access to the internet was affected by connectivity and that, access to their computers was

affected by power cuts; hence making these barriers to access and the use of e-resources.

Librarian respondents rated the four main barriers that prevented students from using and accessing e-resources as: competition for internet access with other users; lack of time to do online searches; problems with access to publishers' databases and the lack of access to computers. The issue of usernames and passwords challenges and too few library staff available to assist users were rated as moderate barriers, while slow response time when requesting resources, and cost of internet access were rated as the minor barriers to access and use of e-resources by students.

These findings reflect a number of barriers preventing students from using e-resources. Although there are some similarities in what the librarians and students consider the most and least important barriers to access and use of e-resources, their views do differ. While students consider the cost of internet as one of the most important barriers, librarians regarded it as one of the least important barriers. The issue of internet connectivity and cost of the internet being one of the major barriers that prevented students from accessing and utilising information resources substantiate the findings of the studies conducted by Buchholz (2011) and Ncube (2015) at Unisa and the University of Namibia students. However, the study by Ncube (2015) also established that the majority of students spend more than 18 hours a week on the internet, which suggests that students could afford the cost associated with accessing the internet. Librarians saw the lack of computers as a major barrier to access and use of e-resources by students, whereas students classified this as a minor barrier. Both students and librarians agree that lack of time to conduct literature searches was a major barrier in preventing students from using e-resources.

Having identified the most important barriers to access and the use of e-resources, the students were asked how they could overcome these barriers. Several suggestions were put forward by students, with the majority indicating that they needed to find more information to inform them how to access e-resources. Some of the students felt that

they needed to practice better time management skills to utilise the resources fully. The other ways to overcome barriers to the use of e-resources suggested by students include: investing in technology; change of attitude; sourcing financial support; attending information literacy training; setting up library user accounts and doing better planning.

4.4.7 Recommendations to the Unisa Library on increasing awareness and use of e-resources by students

The last question sought to obtain recommendations from both students and librarian staff on ways in which the Unisa Library could increase usage of electronic resources. The main recommendations put forward by students were:

- Unisa Library needed to publicise the resources more;
- Balancing of e-resources to cover a wider range of subjects;
- Redesigning of a more user-friendly library platform;
- Negotiating with technology suppliers for cheaper computer and data deals;
- Unisa Library staff being more responsive to user requests;
- Unisa offering both face-to-face and online library assistance services in all branch libraries;
- Extending library hours;
- Encouraging tutors to include e-resource lists in student assignments;
- Providing more face-to-face and online information literacy training workshops;
- Unisa Library entering into consortia to enable sharing of information resources, research outputs, and computers;
- Developing an e-resources access library application;
- Introducing an information literacy module compulsory to all first-year students;
- Providing more computers for student use in libraries; and
- Creating bigger working spaces for students in libraries and increasing the number of information centres.

The majority of the librarian respondents felt that Unisa was doing enough to promote awareness and usage of the resources. However, they came up with the following recommendations to increase awareness and usage of e-resources by students:

- Imposing compulsory attendance of information literacy training for students and providing online training, so that all students can benefit from the training;
- Marketing e-resources in tutorials and lectures, e.g. Tutorial letter 101;
- Accrediting the information literacy course, so that students may appreciate the value of engaging in the training;
- Reaching out to students through the undergraduate student body; and
- Creating subject-specific visual "maps" of the resources relevant to a particular subject field, where to find them and where to find help.

4.5 Chapter Summary

This chapter presented and discussed the findings obtained from the two survey instruments used in the research. The first section of the chapter presented results gathered from each question in the two questionnaires and the second section of the chapter discussed the results of the first section of the chapter to address the research objectives and questions. When discussing the findings, the researcher also referred to findings of similar studies, as presented in Chapter 2 of this study, so as to identify gaps, disparities and to support arguments of other authors. The results addressed all seven research objectives and questions. The next chapter is the final chapter of the study and it will present a summary, conclusion, and recommendations, based on the findings gathered from this chapter.

CHAPTER 5: SUMMARY OF MAJOR FINDINGS, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

Chapter 4 presented, analysed and interpreted data in an effort of addressing the research questions and objectives. This chapter provides a summary of the major findings, conclusions, and recommendations for the study entitled, *Awareness and usage of electronic library resources in open distance learning by third-year students in the School of Arts at the University of South Africa*. The study intended to address the following objectives:

- Identify the types of electronic library resources available to Unisa students;
- Establish initiatives available in Unisa Library to encourage awareness and use of e-resources by students;
- Determine whether students are aware of and use e-resources;
- Determine whether students are competent in using e-resources;
- Determine the purpose and extent of the use of e-resources by students;
- Identify the major barriers that hinder students from using e-resources; and
- Suggest measures that enable students to make maximum use of e-resources.

5.2 Summary of Findings

From the results gathered in Chapter 4, this section provides a summary of the findings in line with the study objectives.

5.2.1 Types of electronic library resources available to Unisa students

The main electronic library resources available for library users at of the study include: e-books, e-journals, e-thesis and dissertations, e-newspapers, e-zines, e-reference sources e-bibliographic databases and online public access catalogue (OPAC).

5.2.2 Initiatives available in Unisa Library to create awareness and encourage the use of electronic library resources by students

The awareness initiatives for the promotion of electronic library resources available at the Unisa Library include: marketing of e-resources through the Unisa Library website, myUnisa platform, SMS service, library information display board, Library Guides, OPAC, posters, brochures, myStudies, Unisa Library @ a Glance, myUnisa course sites, LibGuides, social media and displays in the foyer of the library.

Besides the initiatives that are in place to create awareness of e-resources, the Unisa Library has a number of initiatives available to promote usage of e-resources. These initiatives include: the availability of computers with free internet connectivity for users who visit the library, face-to-face training workshops to equip users with the skills needed to use e-resources effectively, e-reserves services, user library assistance services, the possibility of downloading articles from the library and storing them on external hard drives, the availability of printing services in the Library at a minimal cost, document delivery services, advising lecturers to include some e-resources as part of the prescribed reading material for their courses, a dedicated college librarian to assist students, instructional material that is linked to the lists of subject databases on the library website, podcasts, subscription to Encore Duet, and the 'Find e-journals' search option on the Library home page.

5.2.3 Awareness and use electronic library resources by students

The findings of the study revealed that, although the Unisa Library has a number of initiatives to encourage awareness and use of e-resources, over half of the student respondents were not aware of Unisa e-resources, with 42.9% indicating that they had not set up library accounts citing lack of awareness. Most of the students also indicated that they did not know the School of Arts Subject Librarian. Only 24.4% of the respondents indicated that they used Unisa e-resources as their main source of information, compared the 68.6% who used search engines as their main source of information.

5.2.4 Competence levels of students in using e-resources

The findings show that the majority of students have the knowledge of using ICTs, which allow them to access and use e-resources. The majority of respondents had not received any form of training in the use of e-resources and needed training in the use of the online public access catalogue (OPAC), information retrieval skills and online searching to be able to utilise Unisa electronic library resources fully.

5.2.5 Purpose and frequency of use of e-resources by students

The study established that students have a positive attitude towards e-resources, as evidenced by the number of respondents who indicated that access to e-resources was very important to them. The majority of students use e-resources for study and research. The majority of respondents use e-resources that are accessed through search engines as their main source of information, instead of those accessed through the Unisa Library portal. 81% of the respondents indicated that they used e-resources daily, weekly and monthly, while the other 19% only used e-resources annually.

5.2.6 Major barriers that hinder students from using electronic library resources

From the students' perspective, the findings reveal that the four main barriers hindering respondents from accessing and using e-resources were: the cost of access to the internet; unavailability of relevant literature for studies; lack of time to do online searches and preference for information freely available on the internet. Librarian respondents rated competition for internet access with other users; students' lack of time to do online resource searches; problems with access to publishers' databases and lack of access to computers as the four main barriers preventing students from using and accessing e-resources.

Students were asked how they could overcome the barriers that prevented them from using e-resources fully. The main recommendations put forward were: learning better time management skills; investing in technology; changing of attitude; sourcing financial

support; attending information literacy training; setting up a library account and doing better planning.

5.2.7 Recommended measures for Unisa Library to encourage students to make maximum use of electronic library resources

Both students and librarians were asked to provide recommendations to the Unisa Library that will encourage students to make maximum use of e-resources. The main recommendations put forward by students were:

- Unisa Library publicising e-resources more intensely;
- Balancing of e-resources to cover a wider range of subjects;
- Redesigning a more user-friendly library platform;
- Negotiating with technology suppliers for cheaper computer and data deals;
- Unisa Library staff being more responsive to user requests;
- Unisa offering both face-to-face and online library assistance services in all branch libraries;
- Extending the library hours;
- Encouraging tutors to include e-resources lists in student assignments;
- Providing more face-to-face and online information literacy training workshops;
- Unisa Library entering into consortia to enable sharing of information resources, research outputs, and computers;
- Developing an e-resources access library application;
- Introducing an information literacy module compulsory to all first-year students;
- Providing more computers for student use in libraries; and
- Creating bigger working spaces for students in libraries and increasing the number of information centres.

The majority of the librarian respondents felt that Unisa was doing enough to promote awareness and usage of the resources. However, they did come up with the following recommendations to increase awareness and use of e-resources:

- Imposing compulsory attendance of information literacy training for students and providing online training;
- Marketing the e-resources vigorously in tutorials and lectures, e.g. Tutorial letter 101;
- Accrediting the information literacy training for students to appreciate the value of engaging in the training;
- Reaching out to students through the undergraduate student body; and
- Creating subject-specific visual "maps" of the resources relevant to a particular field, where to find them and where to find help.

5.3 Study Recommendations

The recommendations proposed are based on the findings of this study – i.e. recommendations from both the students and librarians, as well as related studies. As stated in Chapter 1, the aim of the study was to investigate the level of awareness and usage of electronic library resources by Unisa third-year students in the School of Arts, in order to establish ways to encourage increased awareness and usage of these resources, so that students can complete their studies successfully and so that the Unisa Library may realise the benefits of the cost of investing in e-resources. The proposed recommendations are set out in the following sections.

5.3.1 Development of an e-resources marketing strategy

Chirra and Madhusudhan (2009) are of the opinion that awareness is crucial for high usage of resources – a view that is supported by both students and librarians participating in the study. Although the study has revealed a wide range, of initiatives available at the Unisa Library to ensure that students are aware and use e-resources, findings show that there is still a large number of students who unaware of and do not use e-resources, thereby supporting the opinion of Nicholas and Tomeo (2005) that providing e-resources and services to users without communicating to them is not enough: there is need to publicise the resources in a language and media that can be understood by the intended users.

Therefore, the study recommends that the Unisa Library develops an e-resources marketing strategy, supported by a budget, as suggested by Kennedy (2011). The marketing strategy will lead to a marketing plan that would help to identify the best resources to use, so as to encourage high awareness and usage of e-resources by the students. In addition, the Unisa Library should make provisions for time and human resources to ensure effective marketing strategies are developed and implemented (Zabed Ahmed 2013).

5.3.2 Introduction of an information literacy module compulsory to all first-year students

In the 21st century, it is critical for students to be information literate, as they are faced with the problem of information overload from authentic and non-authentic sources. Most of the reviewed studies recommend information literacy training as a major influence on the use of e-resources (Ali 2005; Anaraki & Babalhavaeji 2013; Bhatia 2011; Callinan 2005; Chirra & Madhusudhan 2009; Kennedy 2011; George & Frank 2004; Shuling 2007; Qasim & Khan 2015).

The findings of the study have shown that the majority of students use e-resources searched via internet search engines, compared to those who use e-resources acquired through the Unisa Library portal. Since internet search engines do not have the ability to evaluate the authenticity of the sources, it is critical for students to be acquainted with the dangers of using such information sources. Furthermore, students need to be taught information search skills and information evaluation skills, so that they will be able to search effectively within the various scholarly databases.

Therefore, the study recommends that an information literacy module is introduced to all first-year students, despite their field of studies, as this is relevant for all students. This supports the recommendation by Ncube (2015) in his study on Unisa students' perceptions about e-learning. As recommended by the librarians, the information literacy module should be accredited, so that students can appreciate the value of the subject. Some students noted that they encountered difficulties in navigating through the Unisa

Library platform; hence this study recommends that the information literacy module should include a section on navigating through the Unisa Library platform, so as to equip students with the necessary skills needed to navigate on the platform. Since Unisa is a distance learning institution, the information literacy training should be hosted online, rather than restricting it to face-to-face training sessions. Unisa can use various online learning platforms, such as Moodle, to run the module (George & Frank 2004).

5.3.3 Provision of infrastructure and technologies for access

In order to access e-resources, various infrastructures and technologies are needed, such as working space, power, computers/tablets/smartphones and internet connectivity. The students cited the cost of the internet as one of the major barriers preventing them from accessing and using e-resources, whereas librarians rated competition with other users for internet access and the lack of access to computers as two of the major barriers preventing students accessing and using e-resources. Ncube (2015) notes that, although Unisa has initiatives in place that enable students to acquire technologies for access at a discounted rate, these deals are not sufficient, as not all registered students can afford to acquire the technologies at the discounted rates. Therefore, this study supports the recommendation by the same author that Unisa needs to step up in ensuring that all learners can access technologies needed to access e-resources, either by negotiating with EDULOAN providers to give loans for purchase of technologies or by providing the technologies to students at a subsidised cost. Unisa may also consider introducing free internet access for all students.

In addition to this finding, the study established that there are some areas that are not well-serviced in terms of availability of Unisa Library or information service centres. Therefore, it is recommended that the Unisa Library builds more libraries or information service centres in areas that are not well-serviced and create bigger working spaces in the libraries and information centres so that more students can benefit from accessing the technologies and e-resources at no cost. Unisa can also enter into agreements with “provider libraries” that can offer library services to students based in areas that do not have Unisa Library branches as recommended by Watson (2000). The study also

recommends Unisa extending some of its information service centres, so they can accommodate more users in terms of accessing and using e-resources at no cost.

Appendix A: Survey instrument guide for third-year School of Arts students

AWARENESS AND USAGE OF ELECTRONIC LIBRARY RESOURCES IN OPEN DISTANCE LEARNING BY THIRD-YEAR STUDENTS IN THE SCHOOL OF ARTS AT THE UNIVERSITY OF SOUTH AFRICA

PARTICIPANT INFORMATION SHEET

1 August 2016

Dear 3rd year Student in the School of Arts

Student research project: Awareness and usage of Electronic Library Resources in Open Distance Learning by Third-year Students in the School of Arts at the University Of South Africa

My name is Mercy Moyo and I am doing research with Professor Patrick Ngulube and Professor Luyanda towards an MSc in Information Science at the University of South Africa. I am inviting you to participate in a study entitled “Awareness and usage of electronic library resources in open distance learning by third-year students in the school of arts at the University of South Africa”

WHAT IS THE PURPOSE OF THE STUDY?

We are conducting this research to find out the level of awareness and usage of electronic library resources by Unisa third-year students in the School of Arts in order to establish ways that encourage increased awareness and usage of these resources so that students can complete their studies successfully and to enable the Unisa Library to realise the cost of investment of electronic library resources.

WHY AM I BEING INVITED TO PARTICIPATE?

You have been selected to participate in this study because you are part of the study population which is a third-year student in the School of Arts to which your department falls under. The school comprises seven departments namely African Languages, Afrikaans and Theory of Literature, Art history, Visual Arts and Musicology, Communication Science, English Studies, Information Science and Linguistics and Modern Languages.

Your contact details were acquired from registrar's office at Unisa. Third-year students in the School of Arts were selected as the study population after the realisation that no similar study on the same population has been conducted before. The study population is approximately 5 377 students and a sample was drawn from this population.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

The study involves questionnaires with open and closed-ended questions so you will be expected to give your objective responses to the questions posed in the questionnaire. You will be expected to complete and submit the questionnaire online. The expected time of completion is about 15 minutes.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason but please note after submission of the questionnaire it will not be possible to withdraw from the study. To ensure confidentiality, you will not need to indicate your name, contact details or student number on the questionnaire.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

The results of the study will offer significant information on the level of awareness and use of Unisa Library e-resources, characteristics of the users and their evaluation of the library e-resources collection. The recommendations that will be made after the study

will suggest ways that can help the Unisa Library offer the best service to the library users.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

Since the study will be conducted online and there will be no direct contact and disclosure of names or contact details that align the respondent to the responses, there are no foreseeable negative consequences in taking part in the study.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

The online survey link will be shared online with the respondents and you will not need to disclose your name, student number or contact details when responding to the survey to ensure confidentiality. Your responses, Although not directly linked to you, may be reviewed by people responsible for making sure that research is done properly, including the transcriber, external coder, and members of the Research Ethics Review Committee. The analysed data that you contribute to this study together with others will be used for the research report and may be used for other purposes, such as journal articles and/or conference proceedings. Please note should the research findings be published, individual participants will not be identified and your input to the study will just be enveloped under the population group namely Unisa third-year students in the School of Arts.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

Electronic copies of your answers will be stored in the researcher's computer which is password protected. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. After 5 years after completion of the study, electronic copies of the responses will be permanently deleted from the hard drive of the computer, Survey Monkey, and Dropbox.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

No payment will be received for taking part in the study.

HAS THE STUDY RECEIVED ETHICS APPROVAL?

This study has received written approval from the Research Ethics Review Committee of the Unisa. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, please contact Mercy Moyo on email address 43470483@mylife.unisa.ac.za . The findings are accessible for five years and once the report has been approved, it will be accessed under the Unisa institutional repositories. Should you require any further information or want to contact the researcher about any aspect of this study, please contact Mercy Moyo at the following email address: 43470483@mylife.unisa.ac.za or mercgumedhe@gmail.com.

Should you have concerns about the way in which the research has been conducted, you may contact Prof. Patrick Ngulube on email address Ngulup@unisa.ac.za, Tel. number 012 429 2832 and Prof Liyanda Dube email address dubel@unisa.ac.za, Tel. number 012 4296070. Alternatively, contact the research ethics deputy chairperson of the Unisa Research Management Directorate, Dr. Retha Visagie on email address Visagrg@unisa.ac.za, Tel number 012 429 2478

Thank you for taking time to read this information sheet and for participating in this study.

Thank you.



Mercy Moyo

CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the <insert specific data collection method>.

I have received a signed copy of the informed consent agreement.

Participant Name and Surname..... (Please print)

Participant Signature.....Date.....

Researcher's Name and Surname

MERCY MOYO

Researcher's signature:



Date: 1 August 2016

*** 1. What is your field of study?**

- African Languages
- Afrikaans and Theory of Literature
- Communication Science
- English Studies
- Information Science
- Linguistic and Modern Languages
- Art History, Visual Arts, and Musicology

2. How do you rate your Information and Communication Technologies Knowledge?

- Very Good
- Good
- Average
- Poor

3. How important is it for you to have access to electronic library resources?

[Scale: 1 = Not Important to 5 = Very Important]

(Select the most appropriate number).

- 1
- 2
- 3
- 4
- 5

4. How many times over the past 3 months have you used each of the following sources of academic information?

[Rating Scale: 0, 1, 2-5, 6-10, >10]

	0	1	2-5	6-10	>10
Personal library collection	<input type="radio"/> Personal library collection 0	<input type="radio"/> Personal library collection 1	<input type="radio"/> Personal library collection 2-5	<input type="radio"/> Personal library collection 6-10	<input type="radio"/> Personal library collection >10
Colleagues in other Universities	<input type="radio"/> Colleagues in other Universities 0	<input type="radio"/> Colleagues in other Universities 1	<input type="radio"/> Colleagues in other Universities 2-5	<input type="radio"/> Colleagues in other Universities 6-10	<input type="radio"/> Colleagues in other Universities >10
Unisa Library print materials	<input type="radio"/> Unisa Library print materials 0	<input type="radio"/> Unisa Library print materials 1	<input type="radio"/> Unisa Library print materials 2-5	<input type="radio"/> Unisa Library print materials 6-10	<input type="radio"/> Unisa Library print materials >10

	0	1	2-5	6-10	>10
			materials 2 - 5	materials 6 - 10	
Electronic library resources	<input type="radio"/> Electronic library resources 0	<input type="radio"/> Electronic library resources 1	<input type="radio"/> Electronic library resources 2 - 5	<input type="radio"/> Electronic library resources 6 - 10	<input type="radio"/> Electronic library resources >10
World Wide Web /www	<input type="radio"/> World Wide Web /www 0	<input type="radio"/> World Wide Web /www 1	<input type="radio"/> World Wide Web /www 2 - 5	<input type="radio"/> World Wide Web /www 6 - 10	<input type="radio"/> World Wide Web /www >10

5. Has your study been affected by lack of access to academic literature?

- Yes
- No

6. Are you aware of the electronic resources available through Unisa Library?

- Yes
- No

7. If you have answered “yes” to question 6 above, how would you rate the usefulness of the following electronic resources available in the Unisa Library?

	Very Useful	Somewhat Useful	Not Useful	Useful	No Opinion
Full-Text Abstracting	<input type="radio"/> Full Text Abstracting and Indexing	<input type="radio"/> Full-Text Abstracting and Indexing			

	Very Useful	Somewhat Useful	Not Useful	Useful	No Opinion
and Indexing databases	databases Very Useful	databases Somewhat Useful	databases Not Useful	databases Useful	databases No Opinion
Bibliographic Databases	<input type="radio"/> Bibliographic Databases Very Useful	<input type="radio"/> Bibliographic Databases Somewhat Useful	<input type="radio"/> Bibliographic Databases Not Useful	<input type="radio"/> Bibliographic Databases Useful	<input type="radio"/> Bibliographic Databases No Opinion
E-books Collections	<input type="radio"/> E-books Collections Very Useful	<input type="radio"/> E-books Collections Somewhat Useful	<input type="radio"/> E-books Collections Not Useful	<input type="radio"/> E-books Collections Useful	<input type="radio"/> E-books Collections No Opinion
E-magazines	<input type="radio"/> E-magazines Very Useful	<input type="radio"/> E-magazines Somewhat Useful	<input type="radio"/> E-magazines Not Useful	<input type="radio"/> E-magazines Useful	<input type="radio"/> E-magazines No Opinion
Publishers Journal Collections	<input type="radio"/> Publishers Journal Collections Very Useful	<input type="radio"/> Publishers Journal Collections Somewhat Useful	<input type="radio"/> Publishers Journal Collections Not Useful	<input type="radio"/> Publishers Journal Collections Useful	<input type="radio"/> Publishers Journal Collections No Opinion
Publishers Journal Archive	<input type="radio"/> Publishers	<input type="radio"/> Publishers	<input type="radio"/> Publishers	<input type="radio"/> Publishers	<input type="radio"/> Publishers

	Very Useful	Somewhat Useful	Not Useful	Useful	No Opinion
	Journal Archive Useful	Journal Archive Somewhat Useful	Journal Archive Useful	Journal Not Archive Useful	Journal Archive Opinion
E-Reference sources	<input type="radio"/> E-Reference sources Very Useful	<input type="radio"/> E-Reference sources Somewhat Useful	<input type="radio"/> E-Reference sources Useful	<input type="radio"/> E-Reference sources Not Useful	<input type="radio"/> E-Reference sources No Opinion
E-thesis and Dissertations	<input type="radio"/> E-thesis and Dissertations Very Useful	<input type="radio"/> E-thesis and Dissertations Somewhat Useful	<input type="radio"/> E-thesis and Dissertations Not Useful	<input type="radio"/> E-thesis and Dissertations Useful	<input type="radio"/> E-thesis and Dissertations No Opinion
E-Newspapers	<input type="radio"/> E-Newspapers Very Useful	<input type="radio"/> E-Newspapers Somewhat Useful	<input type="radio"/> E-Newspapers Not Useful	<input type="radio"/> E-Newspapers Useful	<input type="radio"/> E-Newspapers No Opinion

8. Do you know the Subject Librarian for the School of Arts?

- Yes
- No

9. Have you set up an online library account to enable you to access the electronic library resources?

Yes

No

If No, Why?

10. Have you received announcements about electronic library resources in the university?

Yes

No

11. How do you access Unisa Library electronic resources?

In the Unisa Library

Remotely

12. Do you have to pay for the following?

Yes

No

Internet Access Internet Access Yes

Internet Access No

Printing Printing Yes

Printing No

Paper to print Paper to print Yes

Paper to print No

If "YES", does this prevent you from accessing the information you need?

13. Is access to your computer or internet interrupted by power supply or connection problems?

Yes

No

If Yes – how frequently? [Once per day / 2 - 5 times a week / > 5 times a week]

14. Would you like to use Unisa electronic resources more often than you currently do?

- Yes
- No

15. What prevents you from using Unisa Electronic Resources more than you are currently doing?

- Lack of computer
- Cost of access to the internet
- Speed of internet
- Nobody is available to assist with access
- Poor information search skills
- Preference for information freely available on the internet
- Preference for print resources
- Information overload
- Lack of time
- Un-availability of relevant literature for my studies
- Problems with Usernames and Passwords

Other (please specify)

16. What could you do yourself to overcome these barriers?

17. How could the university help you overcome these barriers?

18. What are the main purposes of your use of electronic resource?

- Study
- Research
- General Browsing
- Current awareness

Other (please specify)

19. Have you used electronic library resources?

- Yes
- No

20. If you have answered 'YES' to question 19 above, how often do you use the resources?

- Daily
- Weekly
- Monthly
- Annually

If you answered "NO" - Why NOT

21. Do you ask someone else to obtain information from the electronic resources for you (librarian or other?)

Yes

No

If 'YES', please specify

22. Which are your main sources of information?

Electronic Library Resources

Search Engines

Websites of other Universities

Other (please specify)

23. Which electronic resources would you prefer to use for your academic information needs?

Electronic Journals

Electronic Books

E-zines

E-thesis and dissertations

Electronic newspapers

Bibliographic databases

E-Reference sources

- E-statistical sources
- E-Digital Collections
- E-Government Publications
- E-Media (image, sound, video) collections
- CD ROM databases
- Other (please specify)

24. Have you received training on the use of electronic resources?

- Yes
- No

25. Do you feel that you need training in the use of electronic resources?

- Yes
- No

26. If you have answered YES to question 25 above which areas would you like to be trained on?

- Basic IT Skills
- Information retrieval skills
- Online Searching
- Online Public Access Catalogue (OPAC) Searching

Other (please specify)

27. How easy is it to use Unisa electronic resources?
[Scale: 1=Very Difficult to 5=Very Easy]

- 1
- 2
- 3
- 4
- 5

28. What do you suggest the Unisa Library should do to increase utilization of electronic resources by students?

Please note: Providing names are optional when answering this questionnaire and identity will be withheld for those who choose to disclose their names

Thank you for taking time to participate in our survey. Your inputs are very valuable to Unisa, the researcher and Unisa Library in improving its service to the Library users.

Should you require a copy of the report please feel free to email the researcher at

43470483@mylife.unisa.ac.za

Mercy Moyo

5.3.4 Development of Specialised Library assistance services

Library users need assistance services that enable them to use the library services effectively and efficiently (Hermosa & Anday 2008). Since the first recommendation in this study proposes that the Unisa Library develops a marketing strategy encompassing a marketing plan outlining the best resources and services needed to increase awareness and usage of e-resources, this strategy will also establish the best library assistance services for Unisa students. Unisa can also use the following library assistance services as recommended by the study respondents and related literature: remote access to online databases, virtual reference services, online tutorials, e-reserves, document delivery, web-based portals and gateways, e-library application, streaming video instruction and embedding of library resources with course management software, specialised librarian assistance services (George & Frank 2004; Hermosa & Anday 2008; Mayende & Obura 2013; Nicholas & Tomeo 2005; Snyder, Carter & Hostetler 2008; Watson 2000).

5.3.5 Balance the electronic library collection to cover a wide range of subjects

Student respondents cited the unavailability of subject-specific literature as one of the major barriers that prevented them from fully using e-resources. Furthermore, in their recommendations to the Unisa Library, the students recommended that the Library balances its e-resources collection so that students from all disciplines can benefit from the collection equally.

To ensure that it has a wider electronic library collection at a minimal cost, the Unisa Library should carry out an e-resources need analysis and acquire some to the e-resources needed through the consortium membership under which it falls. This recommendation also aligns with recommendations of other related studies (Mayende & Obura 2013). As recommended by the librarian respondents, the Unisa Library should also create subject-specific visual maps of the resources relevant to a particular field, where to find them and where to find help.

5.3.6 Encourage lecturers to include more e-resources references in study guides and tutorial letters

The study established that one of the barriers preventing students from using e-resources was the fact that they were comfortable with the study material provided in their study guides and tutorial letters. Therefore, this study recommends that the Unisa Library should encourage the lecturers to include more e-resources references in study guides and tutorial letters. Callinan (2005) and several other studies established that students rely heavily on information resources recommended by their tutors.

5.3.7 Hiring of more library staff

Unisa has a total student enrolment of more than 400 000 students and yet the study established that only seven information search librarians, instead of fourteen, were currently employed by the Unisa Library and were serving the entire student population and lecturers with online information requests. The study also established that 86.2% of the respondents did not know the School of Arts Subject Librarian. One of the recommendations from students to the Unisa Library was that the library staff should be more responsive to user requests. These findings show that there are some gaps that the Unisa Library needs to address, in order to serve the users in a better way. The study, therefore, recommends that the Unisa Library recruits and appoints more suitable staff members to help with user requests so that they can serve the users better.

5.4 Recommendations for Further Research

There are some themes emanating from this study that could not be addressed because they fall out of the scope this study. These themes, which warrant further investigation, include:

- Usability of the Unisa Library online platform by students;
- User perspectives on the Unisa e-resources library collection;
- E-resources user needs analysis for distance learning students;
- An investigation into the reasons for some users only conducting information searches without downloading full-text articles;

- An investigation into the reasons for most colleges at Unisa having low e-resources searches and downloads; and
- An investigation why some colleges at Unisa have more e-resources downloads than searches.

5.5 Conclusion

The aim of the study was to investigate the levels of awareness and usage of electronic library resources by Unisa third-year students in the School of Arts, in order to establish ways that encourage increased awareness and usage of resources, so students can complete their studies successfully and the Unisa Library may realise the benefit of the cost of investing in e-resources. The conclusions were guided by the research questions and findings of the study. The study concludes that the Unisa Library has a wide variety of electronic library resources and services needed in academic institutions and that these resources and services match those provided by other academic libraries worldwide, as observed in several studies, some which have been cited in this study. Unisa has a wide range of initiatives to create awareness and encourage the use of e-resources. However, more than half of the students were not aware of the availability of these resources and less than a quarter of the students were using Unisa e-resources. Although the majority of students can effectively use computers, they lack the information search skills that are needed to utilise e-resources fully. Most of the students, who do use e-resources from either the Unisa Library, search engines or libraries of other universities, use these resources for study and research. The major barriers hindering students from using e-resources are lack of awareness; the cost of internet access; unavailability of relevant literature for studies; lack of time to do online searches and preference for information freely available on the internet. The study also concludes that students have a positive attitude towards e-resources and would be willing to use the resources more if the Unisa Library helps them in addressing the challenges that were preventing them from using the resources based on their recommendations.

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APPENDICES

Appendix A: Survey instrument guide for third-year School of Arts students

AWARENESS AND USAGE OF ELECTRONIC LIBRARY RESOURCES IN OPEN DISTANCE LEARNING BY THIRD-YEAR STUDENTS IN THE SCHOOL OF ARTS AT THE UNIVERSITY OF SOUTH AFRICA

PARTICIPANT INFORMATION SHEET

1 August 2016

Dear 3rd year Student in the School of Arts

Student research project: Awareness and usage of Electronic Library Resources in Open Distance Learning by Third-year Students in the School of Arts at the University Of South Africa

My name is Mercy Moyo and I am doing research with Professor Patrick Ngulube and Professor Luyanda towards an MSc in Information Science at the University of South Africa. I am inviting you to participate in a study entitled “Awareness and usage of electronic library resources in open distance learning by third-year students in the school of arts at the University of South Africa”

WHAT IS THE PURPOSE OF THE STUDY?

We are conducting this research to find out the level of awareness and usage of electronic library resources by Unisa third-year students in the School of Arts in order to establish ways that encourage increased awareness and usage of these resources so that students can complete their studies successfully and to enable the Unisa Library to realise the cost of investment of electronic library resources.

WHY AM I BEING INVITED TO PARTICIPATE?

You have been selected to participate in this study because you are part of the study population which is a third-year student in the School of Arts to which your department falls under. The school comprises seven departments namely African Languages, Afrikaans and Theory of Literature, Art history, Visual Arts and Musicology, Communication Science, English Studies, Information Science and Linguistics and Modern Languages.

Your contact details were acquired from registrar's office at Unisa. Third-year students in the School of Arts were selected as the study population after the realisation that no similar study on the same population has been conducted before. The study population is approximately 5 377 students and a sample was drawn from this population.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

The study involves questionnaires with open and closed-ended questions so you will be expected to give your objective responses to the questions posed in the questionnaire. You will be expected to complete and submit the questionnaire online. The expected time of completion is about 15 minutes.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason but please note after submission of the questionnaire it will not be possible to withdraw from the study. To ensure confidentiality, you will not need to indicate your name, contact details or student number on the questionnaire.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

The results of the study will offer significant information on the level of awareness and use of Unisa Library e-resources, characteristics of the users and their evaluation of the library e-resources collection. The recommendations that will be made after the study

will suggest ways that can help the Unisa Library offer the best service to the library users.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

Since the study will be conducted online and there will be no direct contact and disclosure of names or contact details that align the respondent to the responses, there are no foreseeable negative consequences in taking part in the study.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

The online survey link will be shared online with the respondents and you will not need to disclose your name, student number or contact details when responding to the survey to ensure confidentiality. Your responses, Although not directly linked to you, may be reviewed by people responsible for making sure that research is done properly, including the transcriber, external coder, and members of the Research Ethics Review Committee. The analysed data that you contribute to this study together with others will be used for the research report and may be used for other purposes, such as journal articles and/or conference proceedings. Please note should the research findings be published, individual participants will not be identified and your input to the study will just be enveloped under the population group namely Unisa third-year students in the School of Arts.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

Electronic copies of your answers will be stored in the researcher's computer which is password protected. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. After 5 years after completion of the study, electronic copies of the responses will be permanently deleted from the hard drive of the computer, Survey Monkey, and Dropbox.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

No payment will be received for taking part in the study.

HAS THE STUDY RECEIVED ETHICS APPROVAL?

This study has received written approval from the Research Ethics Review Committee of the Unisa. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, please contact Mercy Moyo on email address 43470483@mylife.unisa.ac.za . The findings are accessible for five years and once the report has been approved, it will be accessed under the Unisa institutional repositories. Should you require any further information or want to contact the researcher about any aspect of this study, please contact Mercy Moyo at the following email address: 43470483@mylife.unisa.ac.za or mercgumedhe@gmail.com.

Should you have concerns about the way in which the research has been conducted, you may contact Prof. Patrick Ngulube on email address Ngulup@unisa.ac.za, Tel. number 012 429 2832 and Prof Liyanda Dube email address dubel@unisa.ac.za, Tel. number 012 4296070. Alternatively, contact the research ethics deputy chairperson of the Unisa Research Management Directorate, Dr. Retha Visagie on email address Visagrg@unisa.ac.za, Tel number 012 429 2478

Thank you for taking time to read this information sheet and for participating in this study.

Thank you.



Mercy Moyo

CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the <insert specific data collection method>.

I have received a signed copy of the informed consent agreement.

Participant Name and Surname..... (Please print)

Participant Signature.....Date.....

Researcher's Name and Surname

MERCY MOYO

Researcher's signature:



Date: 1 August 2016

*** 1. What is your field of study?**

- African Languages
- Afrikaans and Theory of Literature
- Communication Science
- English Studies
- Information Science
- Linguistic and Modern Languages
- Art History, Visual Arts, and Musicology

2. How do you rate your Information and Communication Technologies Knowledge?

- Very Good
- Good
- Average
- Poor

3. How important is it for you to have access to electronic library resources?

[Scale: 1 = Not Important to 5 = Very Important]

(Select the most appropriate number).

- 1
- 2
- 3
- 4
- 5

4. How many times over the past 3 months have you used each of the following sources of academic information?

[Rating Scale: 0, 1, 2-5, 6-10, >10]

	0	1	2-5	6-10	>10
Personal library collection	<input type="radio"/> Personal library collection 0	<input type="radio"/> Personal library collection 1	<input type="radio"/> Personal library collection 2-5	<input type="radio"/> Personal library collection 6-10	<input type="radio"/> Personal library collection >10
Colleagues in other Universities	<input type="radio"/> Colleagues in other Universities 0	<input type="radio"/> Colleagues in other Universities 1	<input type="radio"/> Colleagues in other Universities 2-5	<input type="radio"/> Colleagues in other Universities 6-10	<input type="radio"/> Colleagues in other Universities >10
Unisa Library print materials	<input type="radio"/> Unisa Library print materials 0	<input type="radio"/> Unisa Library print materials 1	<input type="radio"/> Unisa Library print materials 2-5	<input type="radio"/> Unisa Library print materials 6-10	<input type="radio"/> Unisa Library print materials >10

	0	1	2-5	6-10	>10
			materials 2 - 5	materials 6 - 10	
Electronic library resources	<input type="radio"/> Electronic library resources 0	<input type="radio"/> Electronic library resources 1	<input type="radio"/> Electronic library resources 2 - 5	<input type="radio"/> Electronic library resources 6 - 10	<input type="radio"/> Electronic library resources >10
World Wide Web /www	<input type="radio"/> World Wide Web /www 0	<input type="radio"/> World Wide Web /www 1	<input type="radio"/> World Wide Web /www 2 - 5	<input type="radio"/> World Wide Web /www 6 - 10	<input type="radio"/> World Wide Web /www >10

5. Has your study been affected by lack of access to academic literature?

- Yes
- No

6. Are you aware of the electronic resources available through Unisa Library?

- Yes
- No

7. If you have answered “yes” to question 6 above, how would you rate the usefulness of the following electronic resources available in the Unisa Library?

	Very Useful	Somewhat Useful	Not Useful	Useful	No Opinion
Full-Text Abstracting	<input type="radio"/> Full Text Abstracting and Indexing	<input type="radio"/> Full-Text Abstracting and Indexing			

	Very Useful	Somewhat Useful	Not Useful	Useful	No Opinion
and Indexing databases	databases Very Useful	databases Somewhat Useful	databases Not Useful	databases Useful	databases No Opinion
Bibliographic Databases	<input type="radio"/> Bibliographic Databases Very Useful	<input type="radio"/> Bibliographic Databases Somewhat Useful	<input type="radio"/> Bibliographic Databases Not Useful	<input type="radio"/> Bibliographic Databases Useful	<input type="radio"/> Bibliographic Databases No Opinion
E-books Collections	<input type="radio"/> E-books Collections Very Useful	<input type="radio"/> E-books Collections Somewhat Useful	<input type="radio"/> E-books Collections Not Useful	<input type="radio"/> E-books Collections Useful	<input type="radio"/> E-books Collections No Opinion
E-magazines	<input type="radio"/> E-magazines Very Useful	<input type="radio"/> E-magazines Somewhat Useful	<input type="radio"/> E-magazines Not Useful	<input type="radio"/> E-magazines Useful	<input type="radio"/> E-magazines No Opinion
Publishers Journal Collections	<input type="radio"/> Publishers Journal Collections Very Useful	<input type="radio"/> Publishers Journal Collections Somewhat Useful	<input type="radio"/> Publishers Journal Collections Not Useful	<input type="radio"/> Publishers Journal Collections Useful	<input type="radio"/> Publishers Journal Collections No Opinion
Publishers Journal Archive	<input type="radio"/> Publishers	<input type="radio"/> Publishers	<input type="radio"/> Publishers	<input type="radio"/> Publishers	<input type="radio"/> Publishers

	Very Useful	Somewhat Useful	Not Useful	Useful	No Opinion
	Journal Archive Useful	Journal Archive Somewhat Useful	Journal Archive Useful	Journal Not Archive Useful	Journal Archive Opinion
E-Reference sources	<input type="radio"/> E- Reference sources Very Useful	<input type="radio"/> E- Reference sources Somewhat Useful	<input type="radio"/> E- Reference sources Useful	<input type="radio"/> E- Reference sources Useful	<input type="radio"/> E- Reference sources No Opinion
E-thesis and Dissertations	<input type="radio"/> E-thesis and Dissertations Very Useful	<input type="radio"/> E-thesis and Dissertations Somewhat Useful	<input type="radio"/> E-thesis and Dissertations Not Useful	<input type="radio"/> E-thesis and Dissertations Useful	<input type="radio"/> E-thesis and Dissertations No Opinion
E-Newspapers	<input type="radio"/> E- Newspapers Very Useful	<input type="radio"/> E- Newspapers Somewhat Useful	<input type="radio"/> E- Newspapers Not Useful	<input type="radio"/> E- Newspapers Useful	<input type="radio"/> E- Newspapers No Opinion

8. Do you know the Subject Librarian for the School of Arts?

- Yes
- No

9. Have you set up an online library account to enable you to access the electronic library resources?

Yes

No

If No, Why?

10. Have you received announcements about electronic library resources in the university?

Yes

No

11. How do you access Unisa Library electronic resources?

In the Unisa Library

Remotely

12. Do you have to pay for the following?

Yes

No

Internet Access Internet Access Yes

Internet Access No

Printing Printing Yes

Printing No

Paper to print Paper to print Yes

Paper to print No

If "YES", does this prevent you from accessing the information you need?

13. Is access to your computer or internet interrupted by power supply or connection problems?

Yes

No

If Yes – how frequently? [Once per day / 2 - 5 times a week / > 5 times a week]

14. Would you like to use Unisa electronic resources more often than you currently do?

- Yes
- No

15. What prevents you from using Unisa Electronic Resources more than you are currently doing?

- Lack of computer
- Cost of access to the internet
- Speed of internet
- Nobody is available to assist with access
- Poor information search skills
- Preference for information freely available on the internet
- Preference for print resources
- Information overload
- Lack of time
- Un-availability of relevant literature for my studies
- Problems with Usernames and Passwords

Other (please specify)

16. What could you do yourself to overcome these barriers?

17. How could the university help you overcome these barriers?

18. What are the main purposes of your use of electronic resource?

- Study
- Research
- General Browsing
- Current awareness

Other (please specify)

19. Have you used electronic library resources?

- Yes
- No

20. If you have answered 'YES' to question 19 above, how often do you use the resources?

- Daily
- Weekly
- Monthly
- Annually

If you answered "NO" - Why NOT

21. Do you ask someone else to obtain information from the electronic resources for you (librarian or other?)

- Yes
- No

If 'YES', please specify

22. Which are your main sources of information?

- Electronic Library Resources
- Search Engines
- Websites of other Universities

Other (please specify)

23. Which electronic resources would you prefer to use for your academic information needs?

- Electronic Journals
- Electronic Books
- E-zines
- E-thesis and dissertations
- Electronic newspapers
- Bibliographic databases
- E-Reference sources

- E-statistical sources
- E-Digital Collections
- E-Government Publications
- E-Media (image, sound, video) collections
- CD ROM databases
- Other (please specify)

24. Have you received training on the use of electronic resources?

- Yes
- No

25. Do you feel that you need training in the use of electronic resources?

- Yes
- No

26. If you have answered YES to question 25 above which areas would you like to be trained on?

- Basic IT Skills
- Information retrieval skills
- Online Searching
- Online Public Access Catalogue (OPAC) Searching

Other (please specify)

27. How easy is it to use Unisa electronic resources?
[Scale: 1=Very Difficult to 5=Very Easy]

- 1
- 2
- 3
- 4
- 5

28. What do you suggest the Unisa Library should do to increase utilization of electronic resources by students?

Please note: Providing names are optional when answering this questionnaire and identity will be withheld for those who choose to disclose their names

Thank you for taking time to participate in our survey. Your inputs are very valuable to Unisa, the researcher and Unisa Library in improving its service to the Library users.

Should you require a copy of the report please feel free to email the researcher at

43470483@mylife.unisa.ac.za

Mercy Moyo

Appendix B: Survey instrument guide for Librarians

AWARENESS AND USAGE OF ELECTRONIC LIBRARY RESOURCES IN OPEN DISTANCE LEARNING BY THIRD-YEAR STUDENTS IN SCHOOL OF ARTS AT THE UNIVERSITY OF SOUTH AFRICA

1 August 2016

Dear Librarian

Student research project: Awareness and usage of Electronic Library Resources in Open Distance Learning by Third-year Students in the School of Arts at the University Of South Africa

My name is Mercy Moyo and I am doing research with Professor Patrick Ngulube and Professor Luyanda Dube Professors in the Department of Information Science towards an MSC in Information Science at the University of South Africa. We are inviting you to participate in a study entitled “Awareness and usage of electronic library resources in open distance learning by third-year students in the school of arts at the University of South Africa”

WHAT IS THE PURPOSE OF THE STUDY?

We are conducting this research to find out the level of awareness and usage of electronic library resources by Unisa third 3rd year students in the School of Arts in order to establish ways that encourage increased awareness and usage of these resources so that students can complete their studies successfully and to enable the Unisa Library to realise the cost of investment of electronic library resources.

WHY AM I BEING INVITED TO PARTICIPATE?

You have been selected to participate in this study because you are an Information Search Librarian at Unisa. Your feedback is important in determining the usage patterns of e-resources by third-year students in the School of Arts and initiatives that the library

has in place to increase awareness and usage of e-resources. Your contact details were acquired from the Office of the Director of the Unisa Library.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

The study involves a questionnaire with open and closed-ended questions so you will be expected to give your objective responses to the questions posed in the questionnaire. You will be expected to complete and submit the questionnaire online. The expected time of completion is about 15 minutes.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason but please note after submission of the questionnaire it will not be possible to withdraw from the study. To ensure confidentiality, you will not need to indicate your name, contact details or student number on the questionnaire.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

The results of the study will offer significant information on the level of awareness and use of Unisa Library e-resources, characteristics of the users and their evaluation of the library e-resources collection. The recommendations that will be made after the study will suggest ways that can help the Unisa Library offer the best service to the library users.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

Since the study will be conducted online and there will be no direct contact and disclosure of names or contact details that align the respondent to the responses, there are no foreseeable negative consequences in taking part in the study.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

The online survey link will be shared online with the respondents and you will not need to disclose your name, staff number or contact details when responding to the survey to ensure confidentiality. Your responses, although not directly linked to you, may be reviewed by people responsible for making sure that research is done properly, including the transcriber, external coder, and members of the Research Ethics Review Committee. The analysed data that you contribute to this study together with others will be used for the research report and may be used for other purposes, such as journal articles and/or conference proceedings. Please note should the research findings be published, individual participants will not be identified your input to the study will just be enveloped under the population group namely Unisa third-year students in the School of Arts.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

Electronic copies of your answers will be stored in the researcher's computer which is password protected. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. Five years after completion of the study, electronic copies of the responses will be permanently deleted from the hard drive of the computer, Survey Monkey, and Dropbox.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

No payment will be received for taking part in the study.

HAS THE STUDY RECEIVED ETHICS APPROVAL?

This study has received written approval from the Research Ethics Review Committee of Unisa. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, please contact Mercy Moyo on email address 43470483@mylife.unisa.ac.za. The findings are accessible for five years and once the report has been approved it will be accessed under the Unisa

institutional repositories. Should you require any further information or want to contact the researcher about any aspect of this study, please contact Mercy Moyo at the following email address: 43470483@mylife.unisa.ac.za or mercgumedhe@gmail.com.

Should you have concerns about the way in which the research has been conducted, you may contact Prof. Patrick Ngulube on email address Ngulup@unisa.ac.za, Tel. number 012 429 2832 and Prof. Liyanda Dube email address dubel@unisa.ac.za, Tel. number 012 4296070. Alternatively, contact the research ethics deputy chairperson of the Unisa Research Management Directorate, Dr. Retha Visagie on email address Visagrg@unisa.ac.za, Tel number 012 429 2478

Thank you for taking time to read this information sheet and for participating in this study.

Thank you.



Mercy Moyo

CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the <insert specific data collection method>.

I have received a signed copy of the informed consent agreement.

Participant Name and Surname..... (Please print)

Participant Signature.....Date.....

Researcher's Name and Surname

MERCY MOYO

Researcher's signature:



Date: 1 August 2016

Please note: Providing names is optional when answering this questionnaire and identity will be withheld for those who choose to disclose their names

Top of Form

1. Which Unisa Library branch are you engaged at?

- Muckleneuk
- Sunnyside
- Nelspruit
- East London
- Durban
- Rustenburg
- Polokwane
- Akiki (Ethiopia)
- Cape Town
- Ekurhuleni
- Johannesburg
- Florida
- Pietermaritzburg

2. What is your Job title?

Bottom of Form

3. Which electronic library resources are available to Unisa undergraduate students?

4. Are students at the University informed about the electronic resources available to them?

- Yes
- No

If "YES", How?

5. Does the Library provide users with training specifically on the usage of these resources?

- Yes
- No

6. If you answered "YES" to question 5 – how frequently are training courses provided

- Weekly
- Monthly
- Annually

Other (please specify)

7. How many Computers/workstations are available in your branch for accessing/using the Internet?

Muckleneuk

Sunnyside

Nelspruit

East London

Durban

Rustenburg

Polokwane

Akiki (Ethiopia)

Cape Town

Ekurhuleni

Johannesburg

Florida

Pietermaritzburg

8. Do users have to reserve access to a Computer/workstation?

Yes

No

If yes – how difficult is it to get access to a PC/workstation?

9. If you have answered yes to question 8 above, what procedure do you follow to allocate Computer/workstation to students?

10. Are the library's information technology resources used to their maximum capacity?

Yes

No

11. Can users print out downloaded articles in the library?

Yes

No

If yes – do they have to pay?

12. Can users save downloaded articles in digital format onto their own media (e.g. memory sticks)?

- Yes
- No

13. What measures are in place to promote the use of e-resources?

14. Is a record kept for students who use electronic library resources at the Library?

- Yes
- No

15. On an average day, how many Branch Librarians are available to help/advise Walk-in library clients doing literature searches at your branch?

Muckleneuk	<input type="text"/>
Sunnyside	<input type="text"/>
Nelspruit	<input type="text"/>
East London	<input type="text"/>
Durban	<input type="text"/>
Rustenburg	<input type="text"/>
Polokwane	<input type="text"/>
Akiki (Ethiopia)	<input type="text"/>
Cape Town	<input type="text"/>
Ekurhuleni	<input type="text"/>
Johannesburg	<input type="text"/>
Florida	<input type="text"/>

Pietermaritzburg

16. On an average day, how many Information Search Librarians are available to help users with online searches at your branch?

Muckleneuk

Sunnyside

Nelspruit

East London

Durban

Rustenburg

Polokwane

Akiki (Ethiopia)

Cape Town

Ekurhuleni

Johannesburg

Florida

Pietermaritzburg

17. Do you obtain information from Unisa Electronic Library resources for students?

Yes

No

18. When did you last obtain information from the Unisa electronic library resources? [Date]

19. How often do you obtain information from Unisa electronic library resources?

- Daily
- Weekly
- Monthly
- Annually

20. Based on your experience, what are the most important obstacles for students in accessing Unisa electronic resources?

[Scale: 1=Not Important to 5=Very Important]

	1	2	3	4	5
Too few Library staff available to assist users with access	<input type="radio"/> Too few Library staff available to assist users with access 1	<input type="radio"/> Too few Library staff available to assist users with access 2	<input type="radio"/> Too few Library staff available to assist users with access 3	<input type="radio"/> Too few Library staff available to assist users with access 4	<input type="radio"/> Too few Library staff available to assist users with access 5
Lack of access to Computers	<input type="radio"/> Lack of access to Computers 1	<input type="radio"/> Lack of access to Computers 2	<input type="radio"/> Lack of access to Computers 3	<input type="radio"/> Lack of access to Computers 4	<input type="radio"/> Lack of access to Computers 5
Competition for internet access with other users	<input type="radio"/> Competition for internet access with other users 1	<input type="radio"/> Competition for internet access with other users 2	<input type="radio"/> Competition for internet access with other users 3	<input type="radio"/> Competition for internet access with other users 4	<input type="radio"/> Competition for internet access with other users 5
Lack of time to do online resources searches by the students	<input type="radio"/> Lack of time to do online resources searches by the students 1	<input type="radio"/> Lack of time to do online resources searches by the students 2	<input type="radio"/> Lack of time to do online resources searches by the students 3	<input type="radio"/> Lack of time to do online resources searches by the students 4	<input type="radio"/> Lack of time to do online resources searches by the students 5

	1	2	3	4	5
Cost of internet access	<input type="radio"/> Cost of internet access 1	<input type="radio"/> Cost of internet access 2	<input type="radio"/> Cost of internet access 3	<input type="radio"/> Cost of internet access 4	<input type="radio"/> Cost of internet access 5
Slowness of response	<input type="radio"/> Slowness of response				
Turnaround time when requesting resources	<input type="radio"/> Turnaround time when requesting resources 1	<input type="radio"/> Turnaround time when requesting resources 2	<input type="radio"/> Turnaround time when requesting resources 3	<input type="radio"/> Turnaround time when requesting resources 4	<input type="radio"/> Turnaround time when requesting resources 5
Problems with access publishers' websites user-friendliness databases	<input type="radio"/> Problems with access to publishers' websites user-friendliness of databases 1	<input type="radio"/> Problems with access to publishers' websites user-friendliness of databases 2	<input type="radio"/> Problems with access to publishers' websites user-friendliness of databases 3	<input type="radio"/> Problems with access to publishers' websites user-friendliness of databases 4	<input type="radio"/> Problems with access to publishers' websites user-friendliness of databases 5
Bandwidth Speed of the internet length of time it takes to download resources	<input type="radio"/> Bandwidth Speed of the internet length of time it takes to download resources 1	<input type="radio"/> Bandwidth Speed of the internet length of time it takes to download resources 2	<input type="radio"/> Bandwidth Speed of the internet length of time it takes to download resources 3	<input type="radio"/> Bandwidth Speed of the internet length of time it takes to download resources 4	<input type="radio"/> Bandwidth Speed of the internet length of time it takes to download resources 5
The Issue of Usernames and Passwords	<input type="radio"/> The Issue of Usernames and Passwords	<input type="radio"/> The Issue of Usernames and Passwords	<input type="radio"/> The Issue of Usernames and Passwords	<input type="radio"/> The Issue of Usernames and Passwords	<input type="radio"/> The Issue of Usernames and Passwords

	1	2	3	4	5
challenges	and	and	and	and	and
related to log-in	Passwords	Passwords	Passwords	Passwords	Passwords
	challenges	challenges	challenges	challenges	challenges
	related to log-				
	in 1	in 2	in 3	in 4	in 5

Other (please specify)

21. Do you think Unisa Library is doing enough to promote awareness and usage of electronic library resources by students?

- Yes
- No

If not, what would you recommend the Library do to promote awareness and usage of the resources?

Appendix C: Ethical Clearance



RESEARCH PERMISSION SUB-COMMITTEE OF SRIHDC

18 March 2016

Dear Ms. Mercy Moyo,

**Decision: Research Permission
Approval from March 2016 until 31
March 2017.**

Ref #: 2016_RPSC_007
Ms. Mercy Moyo
Student #: 43470483
Staff #:

Principal Investigator:

Ms. Mercy Moyo
Department of Information Science
School of Arts
College of Human Sciences
43470483@mylife.unisa.ac.za, 078 108 2247

Supervisors: Prof Patrick Ngulube
ngulup@unisa.ac.za, (012) 429-2832/ 082 852 7612

Prof Luyanda Dube
dubel@unisa.ac.za, (012) 429-6070

A study titled: "Awareness and usage of electronic library resources in open distance learning by third year students in the School of Arts at the University of South Africa."

Your application regarding permission to conduct research involving UNISA employees, students and data in respect of the above study has been received and was considered by the Research Permission Subcommittee (RPSC) of the UNISA Senate Research and Innovation and Postgraduate Degrees Committee (SRIPGDC) on 26 February 2016.

It is my pleasure to inform you that permission has been granted for the study. You may:

1. Approach the relevant Unisa gatekeeper that is responsible for the student system to obtain the total number of students enrolled for third year modules in the School of Arts.
2. Request ICT to send out the invite and the informed consent letter to the students enrolled for the relevant third year modules in the School of Arts, requesting their voluntary participation, via an online link.



University of South Africa
Pretorius Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

3. Request ICT to send out the invite and the informed consent letter to library employees responsible for electronic library resources, requesting their voluntary participation, via an online link.
4. Gain access to statistics on the magnitude of Unisa electronic library resources and its usage through the assistance of the relevant Unisa gatekeeper.

You are requested to submit a report of the study to the Research Permission Subcommittee (RPSC@unisa.ac.za) within 12 months of completion of the study.

The personal information made available to the researcher(s)/gatekeeper(s) will only be used for the advancement of this research project as indicated and for the purpose as described in this permission letter. The researcher(s)/gatekeeper(s) must take all appropriate precautionary measures to protect the personal information given to him/her/them in good faith and it must not be passed on to third parties.

Note:

The reference number 2016_RPSC_007 should be clearly indicated on all forms of communication with the intended research participants and the Research Permission Subcommittee.

We would like to wish you well in your research undertaking.

Kind regards,



pp. Dr. Retha Visagie: Deputy Chairperson RPSC
Tel: (012) 429-2476, Email: visagr@unisa.ac.za

Prof L. Labuschagne – Chairperson: RPSC
Email: llabus@unisa.ac.za
Tel: (012) 429-8388



University of South Africa
Pretter Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Toll-free: +27 12 429 2111 Fax: +27 12 429 4190