THE UTILISATION OF ELECTRONIC DATABASES BY POSTGRADUATE STUDENTS IN THE FACULTY OF HUMANITIES AT THE UNIVERSITY OF LIMPOPO

BY

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DEDICATION

This study is dedicated to my beloved kids, namely, **Nyiko, Nhlaluko and Nwayitelo** and my Mother **Norah Ngobeni**. They have been so supportive during my studies. They have given me courage to do better and I love them without measures. They are the most precious gifts in my life.

DECLARATION

I declare that the dissertation hereby submitted to the University of Limpopo, for the degree of Masters in Information studies has not previously been submitted by me for a degree at this or any other University; that it is my work in design and in execution, and that all materials contained herein has been duly acknowledged.

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ABSTRACT

This study examined whether postgraduate students in the Faculty of Humanities at the University of Limpopo are aware of, and are using electronic databases optimally to locate information for their academic research. The study employed a quantitative research design through the use of a questionnaire as a data collection method to determine students' accessibility and levels of awareness of electronic databases; to measure the extent to which they use electronic databases for academic research; to assess the form of training which they attended on the use of electronic databases; to identify factors that determine their usage and non-usage of electronic databases; and to establish challenges that they encounter in using electronic databases. The accidental sampling method was used to select the participants.

The study found that most participants are aware of the existence of electronic databases. Even if they indicated to have used some of these databases at UL library, it appears that they are referring to Google and Google Scholar. This is despite the fact that the majority of them showed to have attended some sort of training on the use of electronic databases. Factors that influence their choice and use of specific electronic databases include familiarity, unlimited access, multidisciplinary as well as their capabilities. Problems and challenges encountered in the use of electronic databases are related to remote access. It becomes difficult for them to access these databases when they are not on campus. Lack of knowledge and skills to search these electronic databases effectively hindered their optimal usage. Other problems identified by postgraduate students include: slow internet connectivity; inadequately networked computers; lack of access to low-cost printing facilities in the library; inability to use advanced search strategies on most databases; and a lack of awareness of most e-resources. It is recommended that studies of this nature should be conducted in other faculties so that the library should identify electronic databases that are not used and to consider cancelling subscriptions to unused electronic databases in order to save costs.

KEYWORDS: Electronic databases; online databases; usage; postgraduate students; humanities; university of Limpopo.

TABLE OF CONTENTS   **PAGE**

PRELIMINARY PAGES

CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS/ ABBREVIATIONS

BI: Bibliographic Instruction

ED: Electronic Databases

EIS: Electronic Information Sources

EIR: Electronic Information Resources

FTP: File Transfer Protocol

ICT: Information Communication Technology

IL: Information Literacy

IT: Information Technology

LIS: Library and Information Services

MEDUNSA: Medical University of Southern Africa

MSc: Master of Science

LAN: local Area Network

PhD: Doctor of Philosophy

SABINET: South African Bibliographic Network

SPSS: STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

UL: University of Limpopo

ULL: University Of Limpopo Library

WWW: World Wide Web

LIST OF APPENDIXES

CHAPTER ONE

INTRODUCTION AND BACKGROUND INFORMATION

1.1.   INTRODUCTION

Higher education libraries or academic information services are centres for source of information and knowledge where documented social, political, economic and cultural ideas and opinions of civilization are collected, organised, and freely distributed to users for the development of humanity (Bosah, 2008). These institutions exist to support the goals of their parent institutions; they are an integral part of the higher education system and society and have also been pronounced as the "heart of the university" (Becker, Harsle & Mhlauli, 2017). Mammo (2010) states that "academic libraries are responsible for providing relevant, comprehensive, and up-to-date information to diversified users, in order to support learning, teaching, research and community service projects of the university". Graham (2002) and Wilson, Neylon, Montgomery and Huang (2019) note that university libraries "increasingly feel a push from students to provide information resources beyond their physical space". Thus, academic libraries invested more in online database subscriptions in an effort to provide unlimited access to scholarly information. Therefore, one of the ways of meeting the learning, research and community service needs of the university by academic library and information services users is the provision and facilitation of access to information through subscription to, and the provision of, electronic databases or online databases.

"The widespread use of computers, increased reliance on computer networks, the rapid growth of the internet and an explosion in the quality and quantity of information have compelled libraries to adopt new means and methods for the storage, retrieval and dissemination of information" (Haneefa, 2007). "Electronic resources and services have become the most popular tools for research and academic activities" (Golwal, Sonwane & Vaishnav, 2008). Okello-Obura (2008) supports this statement by saying that access to, and the utilisation of, e-resources go in hand with adequate computer skills of library users.

Golwal, Sonwane and Vaishnav (2008), note that "electronic or online databases have become the most common tools for research and other academic activities". Therefore, electronic journals and articles or papers contained in these databases "have an impact on scholarly communication process as they offer many potential benefits, including prompt full-text accessibility" (Mgobozi & Ochoolla, 2002). Electronic databases can also provide many advantages to students, researchers and academics that traditional print-based resources cannot provide. Most importantly, "they contain current information because they are updated frequently; they provide advanced search capabilities; they offer flexibility in the storage of the results; and they enable access to information without restrictions of time and location" (Togia & Tsigilis, 2009). In this sense, "electronic databases facilitate access to required information for users in an easy and expeditious manner" (Shabana, Saleem & Batcha, 2013). Adeyoyin, Idowu and Sowole (2016) note that "electronic databases have helped to break the physical territorial boundaries and time to information accessibility".

Okite-Amughoro, Makgahlela and Bopape (2015:24) note that "they are convenient to use, by virtue of the fact that users are able to access information from anywhere, be it the library, office or at home". Furthermore, Igbo and Imo (2017: 79) stress that "electronic information resources have diverse kinds of benefits, which include providing quick global and convenient access to and exchange of information with experienced and expert personnel in the knowledge fields, easy dissemination of research findings, enhanced collaborative research, enabling the library to provide seamless access to information for their patrons irrespective of geographical location and helping in better management of information and space conservation and enhanced interlibrary collaboration".

It is therefore also desirable that "users should be familiar with the use and exploitation of electronic databases for their quick and effective usage for academic excellence and research" (Bhatia, 2011). The growth of information resources in electronic format also drives students to learn how to locate, choose and use a wide variety of information resources and databases. Master's and PhD students are also expected to conduct their own literature searches to locate relevant information for their research projects and other academic activities. Higher education libraries have therefore developed some means of empowering users with information retrieval

skills "in order to produce qualified individuals who engage themselves in lifelong pursuit of knowledge for personal and professional growth" (Turnbull, Royal & Purnell, 2011:123).

Electronic resources are today used to complement old traditional printed information sources in university libraries. Besides ease of access to the needed information, the major benefit of electronic resources in the university library is that access can be done remotely by academic staff or by students in their offices/laboratories or at homes without a physically paying a visit to the library. Thus, "electronic resources promote efficiency in the dissemination of information for research purposes at universities" (Thanuskodi, 2012). Furthermore, e-resources can be more effortlessly updated than print resources. Ellis and Oldman (2005: 35) pronounced that electronic information resource "is more of a tool to assist in conducting research, a way of scanning a lot of materials quickly. The act of providing access to electronic resources by the university library to patrons is referred to as electronic information services".

1.2.   BACKGROUND TO THE STUDY

As an academic library, the University of Limpopo Library acquires, organises and facilitates access of information and services that support teaching, learning, research and community engagement programmes of the university. The University of Limpopo is situated in Mankweng, about 30km East of Polokwane. "The university was established as a result of the merger between the former University of the North and the Medical University of Southern Africa (MEDUNSA) on 1st January 2005" (Zikalala 2017). Furthermore, Zikalala (2017) shows that historically, "the University of the North was established in 1959 under the apartheid regime's separate ethically based institutions of higher learning policy".

The merger led to the configuration of the academic structures, and the establishment of single governance and management structures. This configuration resulted in the university establishing four faculties, namely, Health Sciences, Humanities, Management and Law as well as Science and Agriculture. The

university has boasted an estimated 22 000 students' population since the transformation process. Though the university has previously operated under the Standard Institutional Statute, its own statute was promulgated by the Higher Education and Training Minister on 23rd August 2010.

However, following nine years of the merger, on 26th May 2011, the Minister of Higher Education and Training, Dr Blade Nzimande, raised an intention to separate the two campuses. As a result, as of 1st January 2015, UL became a stand-alone institution following the completion of the unbundling process with the MEDUNSA Campus, which has now been incorporated into a new university named Sefako Makgatho Health Sciences University. The decision to unbundle the MEDUNSA Campus from UL is an attempt to increase the number of higher education and training institutions in the country (UL Annual Report, 2017).

The UL Annual Report (2017) further states that the University of Limpopo "is comprised of four faculties, namely, Health Sciences, Management and Law, Sciences and Agriculture, and Humanities". The Faculty of Humanities comprises of three schools: The School of Languages and Communication Studies, the School of Education and the School of Social Sciences. The faculty offers a wide range of programmes, leading to certificates, diplomas and degrees, part time and postgraduate degrees up to doctorial level, which equip students with the knowledge, skills and values needed in our modernising communities, the Southern African region and the world at large (UL Annual Report, 2017). The vision and mission of the university reflect on the university 's fundamental principles and obligations. Its vision statement reads as follows:

> "To be a leading African University focused on the developmental needs of its communities and epitomising academic excellence and innovativeness" (UL Annual Report 2017.

The mission of the University of Limpopo reads as follows:
> "The University which responds actively; to the development needs of its students, staff and community, through relevant and higher quality education

and training, research and community engagement, and in partnership and collaboration with its stakeholders" (UL Annual Report, 2017).

To support the mission and vision of the University of Limpopo, the library also came up with its own mission and vision, as follows:

"to be an excellent University Library and Information Service responding to the information needs of its communities" (UL strategic plan, 2017).

To achieve the above vision, the mission of LIS is "to provide efficient and effective client driven, innovative information services in support of teaching and learning, research and community engagement in collaboration with its stakeholder" (UL Strategic Plan, 2017).

The mission and vision of the UL library will be achieved through the following goals:
- Enhanced governance, management and support;

- Enhanced operational efficiency of acquisitions;

- Enriched client experience;

- Quality library systems and improved cataloguing, classification and digitisation; and

- Promotion of lifelong learning through user education/information literacy, information provision and marketing.

The UL library is a learning organisation that strategically aligns and integrates services, resources, programmes and technologies with the mission and goals of the university. The specific goal of enhancing operational efficiency of acquisitions is relevant to this study when glanced from the perspectives of acquisition of electronic databases. To this end, the UL Library has subscribed to a number of electronic databases in different subject fields, including the humanities electronic databases. This library has been providing access to electronic databases since 1990, with the aim of supporting information needs and research activities of the university community. One of the strategic goals of the University of Limpopo Library (ULL) is

to promote lifelong learning through user education, information provision, marketing and liaison. To implement this, the UL library continues to conduct LIS orientation for all new students and staff, and Bibliographic Instruction or information retrieval skills for postgraduate students or senior students (UL Strategic Plan, 2017).

The UL library, formerly known as the University of the North Library, was established in 1960 coinciding with the opening of the university. But irrespective of the forty (40) years of existence in 2000, the library collection was extremely poor in terms of quality and depth. The library was computerised only in 1982 utilising the URICA Integrated System. Currently, because of the library's active participation in the regional consortium, it has been able to acquire and connect to a computer system through Gauteng and Environs Library and Information Consortium (GAELIC). This was acquired through funding obtained from the Mellon Foundation, and UL library only has to provide costs for maintenance, staff training and connection.

Currently, the library consists of four sections that include Information or reference services, Acquisition (Collection Development), Cataloguing (Technical services) and Readers' services, consisting of four units, namely Circulation, Acquisition, Information Services and Technical services. The physical structure of the library has four floors. Furthermore, the UL library has a several spaces that are meant for learning and research. The whole library is connected with WI-FI, and users can access the internet on their laptops. The library has study carrels provided with both plugs and wireless network connectivity on all the floors. The study carrels are first and foremost reserved for postgraduate students, lecturers and researchers. Again, the library has electronic room for postgraduate students with many computers on the first floor. Lastly, the library has an open space for use by both undergraduate and postgraduate study, as the study carrels cannot accommodate all postgraduate students.

The LIS Directorate was allocated an operational budget of R33 750 000 for the fiscal year 2018. Of this amount, R31 500 000 was allocated for the information/learning resources. The better part of the Library budget is spent on acquiring learning resources that support the core business of the university. These

items mainly include monographs, periodicals, databases subscriptions, library software and systems. Since databases are key for learning and research in every higher education institution, it is of central importance for postgraduate students to know which resources are available at their disposal and how to use them effectively. Investigating the utilisation of these electronic databases by master's and doctoral students in the Faculty of Humanities could help recognize problems and challenges which are experienced by postgraduate students when they are retrieving information for academic research using such resources. From the library's perspective, "it is very important to determine and understand which available library electronic databases are currently being used or underutilised so as to make recommendations regarding possibilities for improving the usage of these databases" (Soyizwapi, 2005:5).

1.3.   RESEARCH PROBLEM

According to Barnard Nash and O' Brien (2005:505), online databases are an important component for teaching, learning, research and community engagement in any academic institution. These electronic resources are there to assist postgraduate students, academic staff and researchers to realise their research and academic information needs (Nsanzya, 2003). Consequently, academic libraries find themselves having to subscribe to a large number of different electronic or online information databases in order to meet the instructional, learning, research and community development needs of students, academics, researchers, and the neighbouring communities. Soyizwapi (2005) notes that "when libraries make resources available for use, it is important to find out about the usage of such resources", that is, whether their costs are justified by usage. Luther (2001) advises that publishers and vendors who provide journals in electronic format today are able to furnish usage statistics of these journals. Eason, Richardson and Yu (2000) confirm that "quantifying of electronic journal usage in recent years has become more possible with the emergence of online journals, particularly because service providers (publishers) often utilise log-in software to monitor and report their usage". Unfortunately, this login-in software to monitor and report the usage of electronic databases or resources only provides statistics in terms of the number of logins,

rather than revealing experiences and opinions of users who use these resources to locate information for academic purposes. In addition, publishers may fear that librarians may use such information or usage statistics that they provide as a basis for cancelling subscriptions (Luther, 2001). Therefore, without soliciting feedback from users of these electronic databases, there is no credible method of determining which ones are used more frequently than others, as well as problems that users typically encounter during the process of completing every-day information seeking tasks (Tenopir, 2003). Usability testing offers "a means to analyse how users interact with online database functions to achieve specific research goals" (Zhang, 1999). Therefore, this study will examine whether postgraduate students are using these electronic databases optimally, and if not, what the reasons behind the non-usage of these resources are.

The UL library uses a considerable proportion of its budget to provide relevant online databases to academics, researchers and postgraduate students who write dissertations and theses, and intend to publish research articles. The library has made access to a wide range of academic databases available via the Library's website (whether on-campus or off-campus) via local Area Network (LAN) in the Library. These databases are there to help students meet their information needs ever since it secured purchasing access to its first online databases. In its effort to develop relevant information resources collection in electronic formats to support teaching, learning and research, the library renewed subscriptions to e-books, packages, e-journals and online databases for 2018. In addition to the online resources collection, subscription to Incite has been added to the collection. This gives a total of number of 42 online databases, many of which are full-text journal articles and 7000 e-books. According to the LIS Annual report (2018), to date the total expenditure for all E-resources (E-books and Library software, online research management software, discovery tools) stands at R29273058. These resources utilise 95% of the LIS operational budget, but a growing concern is the extent to which these resources are utilised by UL communities in their teaching, learning and research endeavours. The better part of the Library budget is spent on acquiring learning resources that support the core business of the university.

1.4.   PURPOSE OF THE STUDY

1.4.1. Aim

The aim of this research is to examine the utilisation of electronic databases by postgraduate students registered for master's and doctoral degrees in the Faculty of Humanities at the University of Limpopo. The study examined whether postgraduate students are using these electronic databases optimally and if not, what could be the reasons behind the non-usage of these resources.

1.4.2. Research objectives

To achieve the above aim, the objectives of the study were:

- To determine levels of accessibility and awareness of electronic databases by postgraduate students in the Faculty of Humanities at the University of Limpopo;
- To measure the extent to which postgraduate students in the Faculty of Humanities at the University of Limpopo use electronic databases for academic research;
- To assess levels of training that postgraduate students in the Faculty of Humanities received on the use of electronic databases;
- To identify factors that determine the usage and non-usage of electronic databases; and
- To establish challenges that postgraduate students in the Faculty of Humanities encounter in using electronic databases.

1.5.   DELINEATION OF THE STUDY

In this study there are some terms or concepts that frequently appear. It is therefore necessary to delineate these terms for the purpose of acclimatising the reader with their usage in this study. Postgraduate students denote to older students who have already completed their undergraduate degrees but who are continuing with their studies at a higher level. These are students who are studying towards honours, master's and doctorate degrees. Some of these students are studying part time,

while some are studying on full time basis. Although there were master's and doctoral students in other faculties, this study only covered master's and doctoral students from the Faculty of Humanities, comprising of three schools, namely, School of Social Sciences, School of Education and the School Language and Communication Studies. The reason for choosing master's and doctoral degree students as respondents is because the training of researchers is strengthened or pitched at a higher level at master's and doctoral levels. At these levels, candidates are expected to produce and present a research report in the form of a thesis or dissertation. This offers them with a chance to exhibit their ability to carry out research extensively. Most researchers are trained at this level, "which is the entry level for future independent research work" (Kaniki, 2000). The Faculty of Humanities is specifically chosen because it would be easier for the researcher to interact with the participants due to the close relationship that the researcher has established with the Faculty of Humanities. Therefore, by choosing the faculty which the researcher has established a strong working relationship, it minimised the risks of having the questionnaires not being responded to.

The term 'electronic resources' encompasses a wide number of terms that relate to information which is in the digital format. It is for this reason that some people may use the term electronic information resources interchangeably with electronic databases. However, "electronic information resources can be defined as the electronic representation of information which can be accessed via the electronic system and the computer network" (Johnson, Evensen, Gelfand, Lammers, Sipe & Zilper, 2012). Electronic database is an organised collection of information sources accessible through the internet (Abubakar & Akor, 2017). These databases are organised information containing thousands of full-text materials traditional available in print (Machet, 2012: 89). The information found in databases include many topics and formants "such as full-text scholarly articles, abstracts, newspaper articles, bibliographies, business reports and health information" (Behrens, 2000). These materials "have been digitally scanned and stored for retrieval by using keywords, subjects, authors and titles, while electronic resources are not organised" (Rubin, 2016). In this study, electronic databases and online databases are used interchangeably.

"An electronic database is a collection of data arranged in a systematic fashion to make the search easy and fast. In other words, it is a computer-based collection or listing of information, usually organised with searchable elements or fields. The most common type of library database consists of records describing articles in journals or newspapers" (Abubakar & Akor, 2017).

Dion and Schubert (2008) remark that "retrieval from this information store is basically accomplished through a matching process. The process of matching customers' query against information in databases is the essence of computerised information retrieval. Information that is obtained in electronic databases includes articles from electronic journals". Electronic journals may be defined as "any journal, magazine, newsletter, or any type of serial publication that is available over the Internet" (Cole, 2004). Sweeney (1997) refers to online electronic journals as "pay as you go". Resources such as Science Direct, JStor, Ebscohost, Academic Search Premier, Emerald, Social Science Citation Index, and SA E-publications (Bloomberg & Volpe, 2019) are good examples of databases or searching tools that are used to retrieve electronic articles from printed journals.

1.6.   SIGNIFICANCE OF THE STUDY

Due to the large proportion of the library budget being expended and allocated on these resources, it is important that the usage of electronic databases should be evaluated from time to time. "It is important to understand the impact of these electronic resources on the university or academic environment, as this has implications on the learning and research process on the part of postgraduate students, and more importantly on cost reduction, budgeting, research and effective information dissemination on the library" (Mgobozi & Ocholla, 2002:4). The results of the study could therefore assist the library management in terms of any changes that they need to make to improve their electronic database services as they are paying huge amounts of money.

The study could also help to identify problems and challenges which are encountered by postgraduate students when they are searching and retrieving information using such resources. The library will be able to design and implement relevant interventions to overcome such problems and challenges. Furthermore, the study could also assist the management of the institution to develop programmes that will create awareness on the importance of the use of electronic information resources towards research. The results of the study can help the UL library to determine strengths and weaknesses of their database collections. The use of electronic databases by master's and doctoral students is important for this reason. Master's students were "the focus of the study because, the primary purpose of a master's degree is to "educate and train researchers who can contribute to the development of knowledge at an advanced level, or prepare graduates for advanced and specialised professional employment" (South African Government Gazette (30353:28).

1.7. METHODOLOGY

1.7.1. Research approach

This study used the quantitative research approach through a survey research methodology. The quantitative approach allows the researcher to collect accurate data and to analyse participants' opinions to gain a clear and better understanding of the utilisation of electronic databases by postgraduate students. The approach allows the researcher to collect accurate numerical data in order to arrive at conclusions regarding the topic. Labaree (2009) notes that "quantitative methods emphasise objective measurements and statistical, mathematical or numerical analysis of data collected".

1.7.2. Research design

This study adopted the descriptive time horizon research design. According to Melnikovas (2018), "time horizons is a research design independent of the research methodology used. There are two categories of time horizons, namely, longitudinal

and cross-sectional. Longitudinal studies are repeated over an extended period, while cross-sectional studies are limited to a specific timeframe. This research is also limited to a specific time frame", and hence the cross-sectional time horizon is adopted. Shaughnessy, Zechmeister and Jeanne (2011) describe the cross-sectional study as one in which information is collected from the population, and one that describes characteristics of the population at one time, and then make inferences about the effect of one or more variables on an outcome variable. This study looked at the information seeking behaviour of scholars in the humanities and measured this against the population of the study.

1.7.3. Data collection method

This study used a questionnaire as a data collection method. To allow flexibility and to find out reasons behind certain responses, the questionnaire used closed-ended.

1.7.4. Data collection procedure

The researcher distributed self-administered questionnaires to a group of postgraduate students in the Faculty of Humanities. A group administered questionnaire allows the researcher to get the survey done in a space of time. It also guarantees a high response rate (Wright, 2005). The respondents were encouraged to complete the questionnaires at the same time rather than taken away for completion elsewhere. However, in cases where this was not possible, participants were asked to bring the completed questionnaire at a later stage, agreed upon by the researcher and the respondent. Details of data collection procedure are documented in chapter three of this report.

1.7.5. Population

A study population is a group of people from whom research conclusions are drawn (Heilman, 2012). The population of this study were students and staff members who registered for masters and PhDs in the Schools of Language and Communication Studies, Social Sciences, and Education, Faculty of Humanities. The total population

of the postgraduate students registered for the academic year at the time of collecting data at UL was 625.

1.7.6. Sampling

In this study, systematic random and accidental sampling methods were employed to accommodate every unit of the population of 125 postgraduate students in the Faculty of Humanities. Postgraduate students who were conveniently or accidentally available on the day of collecting data were given the questionnaires to complete. The researcher distributed the self-administered questionnaires through their lecturers during research workshops and in their residences.

1.7.7. Data analysis

Burns, Gray and Grove (2014: 502) define data analysis "as the technique used to reduce, organise and give meaning to data". Data were coded and analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were compiled. Frequency distributions, percentage, mean and standard deviations were obtained, and were presented in the form of tables, pie charts, bar graphs and analysed descriptively.

1.8. OUTLINE OF CHAPTERS

Chapter 1:
This chapter gives background information of the study, introduces the reader to the statement of problem, the purpose, and objectives of the study. The significance of the study is also provided in chapter one, including the scope or delineation of the concepts frequently appearing in the study. The research approach and design that were adopted are also briefly presented in this chapter.

Chapter 2:

This chapter focused on the literature review and discussion of theoretical framework and assessment of related literature on the use of electronic databases by postgraduate students.

Chapter 3:

This chapter explains in detail the research methodology that was adopted. The research design and methodology will be discussed in this chapter. Emphasis will be on approaches, methods and techniques that were used to collect data in the study. The data collection or the questionnaire will be used to collect quantitative data. The target population and the sampling method are also discussed in this chapter of this research report.

Chapter 4:

This chapter deals with the presentation, analysis and interpretation of data collected as related to the aims and objectives of the study.

Chapter 5:

This chapter will present major findings and conclusion, as well as provide recommendations based on findings of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1.   INTRODUCTION

This chapter covers the review of literature relevant to the current researched topic. Literature review means careful examination or evaluation of published information or data on a specific topic or subject. This published information may be a collection of bibliographical list of information sources, as well as critical appraisal of inventive publications on the subject covered. These publications include "print books, e-books, print journal articles and e-journal articles, magazines and newspaper reports. Furthermore, there are grey literature such as theses and dissertations, which are very useful when investigating a topic of an academic nature" (Guffey & Loewy, 2016: 309). Thody (2006:89) shares the same view that the word "literature" includes "all secondary sources for research, such as printed texts, film, audio tape, presentations and lectures, paintings, handwritten diaries, archival sources, legislation, websites, artefacts, CDs, DVDs, and theses". However, in the case of this study, traditional print materials such as journal articles and books, theses and dissertations, as well as electronic or online journals and e-books were covered as sources of information used to build this study are reviewed or studied.

Gastel (2012) states that "the essence of a literature review is to provide room for a more in-depth understanding, wisdom and knowledge, regarding the researched topic or subject", and further that "the review of literature displays breaches and loopholes of other researchers in the topic or subject so that the current researcher can suggest improvements on the previous studies". Therefore, the review of related literature assists the researcher to be more attentive and to new knowledge in the area (Gastel, 2012). Without an in-depth review of literature on the topic, the research work is not complete since there is no existing body of knowledge to build on.

In this chapter, theoretical framework on which this study is based, that is, the information seeking behaviour of scholars in humanities is first discussed. This is followed by the definition and nature of electronic or online databases, looking at

their features and capabilities, followed by the historical development of electronic databases in academic libraries. The other aspects covered in this chapter are based on the objectives of the study, namely, accessibility and awareness of electronic databases, the use of electronic databases in the humanities, factors influencing the use of electronic databases and challenges encountered in using these databases.

2.2. THEORETICAL FRAMEWORK

According to Kidder and Judd (1986), a theory is "a set of concepts, including the interrelationships that are assumed to exist among those concepts". Theories, models and conceptual frameworks have been developed to describe, explain, analyse and generally make meaning of the use of electronic resources in general through library user behaviour theories in general and information seeking behaviour theories in particular. The use of electronic databases by postgraduate students in the humanities can also be best explained if glanced from the perspectives of information behaviour or information seeking behaviour theories.

Information behaviour is defined as "encompassing information seeking as well as the totality of other unintentional or passive behaviours (such as glimpsing or encountering information), as well as purposive behaviours that do not involve seeking, such as actively avoiding information" (Case 2012). Stilwell (2010: 3) argued that "information behaviour consists of a broader term that includes information needs, information seeking behaviour, information searching or retrieval and information use". According to Case (2012), "information seeking is a conscious effort to acquire information in response to a need or gap in one's knowledge". Therefore, information seeking is part of information behaviour. A glance into the above explanations of information behaviour, it is truthful to say that information is very important in all spheres of life and that every in every situation or condition that people find themselves, there is a need for information, and when the information is not forthcoming, there is an inclination to seek information to get out of the situation or condition that one finds himself or herself.

According to Baro, Onyenania and Osaheni (2010: 109), information seeking behaviour can be described as "an individual's manner of gathering and sourcing information for personal use, knowledge updating and development". Kakai, Ikoja-Odongo and Kigongo-Bukenya (2004) define information seeking behaviour as "the way people go about searching for information". Furthermore, Wilson (2000:49) defines information seeking behaviour "as the purposive seeking for information as a consequence of a need to satisfy some goal".

Information seeking behaviour of postgraduate students in the humanities involves "the purposeful seeking of information as a result of the need to complete course assignments, prepare for class discussions, seminars, workshops, and most importantly, to write final year research papers, theses or dissertations" (Ahmad & Ahmad, 2017). In this study, the use of electronic databases by postgraduate students in the humanities is investigated. In order to do this, the information seeking behaviour or habits of postgraduate students in the humanities should be explained.

2.3. INFORMATION SEEKING BEHAVIOUR IN THE HUMANITIES

Several studies on the information seeking behaviour of students in various disciplines and the humanities in particular exist (Hadebe & Hoskins, 2010; Baro et al., 2010; Buchanan, Cunningham, Blanford, Rimmer & Warwick, 2006; Tibbo, 2003; Watson-Boone, 2004; Wiberly & Jones, 2000). Such studies came as a result of teachers and librarians wanting to know how they can better improve research tools for these scholars. For example, Neal (1997) wanted to improve collections in libraries for certain students, particularly for students in the humanities by knowing what they were searching for or what they wanted to search for. These improvements could be made on certain databases in the library, as well as expanding or improving the library collection. Another reason for many user studies on scholars in the humanities is because this faculty is a general group which can be broken down in smaller sub groups in Arts, Social Sciences and Literature. The user group for scholars in the humanities is multidisciplinary, including a number of types of students including subjects such as English, Arts, Social Sciences, Literature, History, Languages, Philosophy and Education. Therefore, databases that are good

for students in the humanities can be general databases such as Science Direct, EbscoHost, Sabinet, Jstor, and Social Science Citation Index. This is because of their nature, that is, they are multidisciplinary.

Therefore, master's and doctoral students in the humanities have different information needs as a result of their wide areas of research interests. When a postgraduate student or an individual lacks the information essential to take appropriate action or decision about a particular situation, and takes actions to bridge or fill such a gap, an information need can be said to manifest itself. Idoniboye-Obu (2013) also notes that an "information need exists wherever there is a consciousness that one lacks the facts upon which to act and takes measures to obtain the relevant facts". Prabhavathi (2011: 34) comments that postgraduate students "are involved with various information seeking behaviours and use of multiple sources of information with the aim of satisfying academic and research needs at universities". Fourie (2006: 101) also indicated that "information seeking can be active or passive". Doctoral and masters students are therefore actively and passively involved in different information seeking patterns in order to meet their academic and personal information needs.

Scholars in the humanities are a unique group of people who require various information seeking arrangements. Their queries are complex and unique. So databases that support their needs are required. When they are compared with other scholars in other disciplines, such as sciences, scholars or students in the humanities are found to have more unique search statements than the science students, as they use more individual names, geographical terms, and discipline terms than science students, making their searches more unique. Therefore, when improving databases for these students, findings such as these ones need to be taken into account. In other words, they will require more unique search statements than other scholars in other disciplines. Electronically stored information in computers has been increasing regularly at universities to aid academic staff with their research (Rubin, 2016).

2.4. NATURE AND PURPOSE OF ELECTRONIC DATABASES

Electronic databases are valuable tools for study, learning and research and are defined in various ways by different individuals and institutions. However, the direct definition of electronic databases is that they are a collection of information that is "stored in a computer-readable format, organised systematically and that can only be retrieved through computer systems and other related technologies" (Aderibidge and Ajiboye, 2013:248). Haridasan and Khan (2009: 118) defined electronic databases as "resources in which information is stored electronically and which are accessible through electronic systems and networks". This is consistent with the description of electronic information resource as a generic term "for electronic information stored both offline or online" (Thanuskodi, 2012: 326).

Therefore, the use of the concept electronic information resources is more general to what this study investigates. Different types of electronic information resources "include e-journals, e-books, online databases, e-theses/e-dissertations, electronic conference proceedings, electronic technical reports, electronic reference documents and CD-ROM databases" (Appleton, 2006; Costa & Meadows, 2000; Dadzie, 2005; Parameshwar & Patil, 2009; Swain, 2010). Basically, e-resources that are accessible on the internet is and are described as internet resources. Appleton (2006: 620) classified internet resources into "freely available web-based resources" and "scholarly web-based resources such as electronic journals". Scholarly web-based resources – electronic journals, electronic books and online databases are relatively invaluable e-resources that brought great innovations in research processes at universities.

Therefore, this study looks specifically at electronic resources, consisting of online databases or web-based scholarly resources accessible through subscription with commercial database vendors or suppliers. In an academic environment, electronic databases can be defined as a collection of information resources in electronic format, which can be accessed with the aid of computer and web technology for the purpose of learning and research. They are generally "databases containing bibliographic or full-text images of books, journals, and other information in electronic formats, which can be accessed from any location and at any time with the help of Web technology" (Adeyoyi et al., 2016).

"In view of the potential advantages and benefits of online journals or databases over the print in modern electronic information environment, accessibility and utilisation of e-resources is fast becoming a norm in research at universities around the world. Research on access to electronically stored information in computers has been increasing regularly at universities to aid academic staff in their research" (Rubin, 2016).

Reitz (2002) defines a database as "a large updated file of digitised information related to a specific subject or field, consisting of records of uniform format organised for ease and speed of search and retrieval and managed with the aid of database management system software".

"This information lists bibliographic references, abstracts and full-text documents, amongst others. Database producers lease it to vendors, who then compile the content, which the vendors convert into a machine-readable form, and provide electronic access to the data. Libraries subscribe to these electronic databases (whether on CD-ROM or online via the internet) and make them available to their users" (Reitz (2002)

Electronic or online databases come in three types, namely, bibliographic databases, full-text databases and numeric databases. Bibliographic databases offer citations of articles in magazines, journals and newspapers. Some may also contain abstracts, e.g. Index to South Africa Periodicals (ISAP) on Sabinet and Science Citation Index etc. Bibliographic databases also include Online Public Access Catalogues' (OPAC's) and electronic indexes and abstracts. Full text databases contain full texts of articles in different formats such as Portable Document Format (PDF) or Hypertext Markup Language (HTML) format, e.g. Science Direct, SA e-publications, Ebscohost. Numeric databases provide numeric data such as statistics, survey results, census information. For example, Stats SA have been considered as numerical databases in this study. Databases which contain a combination of both bibliographic, full-text and numerical information are referred to as hybrid databases.

Gash (2000) acknowledges that "electronic databases are of central importance to anyone performing a literature search and that they cover a variety of subject areas". They provide access to millions of systematically organised references of different types of literature such as journals, newspaper articles, books, reports, conference

papers, patents, standards, theses, dissertations and government publications. Sharma (2009) identifies electronic resources to include journals, data archives, manuscripts, maps, books, magazines, theses, newspapers, e-mails, research reports, and bibliographic databases. Ibrahim (2004) added library websites, online catalogues and online reference works.

Academic libraries provide online databases to aid members of the university community in their pursuit of education (both narrowly and broadly defined) and information. To ensure that students pursue their academic goals, academic libraries offer library resources as enrichment resources selected on the basis of relevance. In addition, online databases are convenient tools to use since users are able to access information from the internet inside the library, outside the library or even off-campus in some libraries. Electronic databases are beneficial to postgraduate students because they are accessible, accurate, easily searchable, have speed, they are interactive, authoritative and reliable, and contain timely information. Each journal can be searched quickly and easily often through complete full text of articles and via online index.

According to Tomney and Burton (1998), online databases provide quality information services to the university community by building on existing collections and supplementing areas that lack depth. These authors further emphasised that libraries must provide these resources. This places the power of research in student's hands. The worst is that expensive print reference resources can become dated quickly. It is reassuring to both students and researchers that they can gain access to current information for their research. They can find information that they need anytime and virtually anywhere. Students who use subscribed online databases rely on the services most of their times.

Electronic or online databases can be used to prepare quality evidence-based assignments and research projects. These resources allow students to access the required information for study and research. For example, postgraduate students can access and download full-text evidence-based articles on databases such as EbscoHost, Science Direct, Sabinet and JSTOR. According to Welsh, Parker, Widaman and O'Neil (2001:28), there are a number of electronic journals that are used specifically to disseminate the best available research findings into practice.

This ensures that students will obtain current research which will keep them informed in various disciplines. An electronic format textbook provides students the opportunity to search full text, and to browse for relevant information with the provision of links to sections of the book. Chowdhury and Chowdhury (2001:133) point out that each information source databases' system has its own custom-built interface that allows specific types of search and specific operators for specific search commands. Students should be familiar with features of online information sources, such as fields, operators, search strategy formulation, output features and terminology for efficient information search and retrieval.

Electronic databases are now used to supplement printed information sources in university libraries. They promote efficiency in dissemination of information for research purposes at universities (Thanuskodi, 2012). Furthermore, electronic databases are more easily updated than print resources. Ellis and Oldman (2005: 35) opined that electronic information resource "is more of a tool to assist in conducting research, a way of scanning a lot of materials quickly". The act of providing access to electronic resources by the university library to patrons is referred to as electronic information services.

2.5.   HISTORICAL DEVELOPMENT OF ELECTRONIC DATABASES

A large amount of research has been conducted and published on the history and development of electronic information sources in the world (Harter, 1998; Chan, 1999; Koehler, 2000; Large, Tedd & Hartley, 1999), of which most of them convey the same sentiment that electronic information resources or databases came with the explosion of the internet, particularly the World Wide Web (WWW) and web technology. Although they have been under development since 1976, electronic journals began in the 1990's (Harter & Kim, 1996 and Bearman, Prior & Pudlowski, 1999). The dramatic explosion of the internet, particularly the World Wide Web, provided a solution to the problems that were being experienced with printed journals, because alternative forms of conventional printed journals, otherwise known as electronic journals, were provided (Harter, 1998). The World Wide Web is therefore a new medium for publishing scholarly journals. As a result, the number of

electronic journals is said to be proliferating in various academic fields (Koehler, 2000).

Studies such as those conducted by Large et al. (1999) provide an historical overview of such developments. The 1940s and 1950s are seen as the initial period of digital computers that were used for processing numerical data. The 1960s and 1970s saw developments in the ability of computers to store and retrieve textual data. This period saw developments in abstracting and indexing services, which helped make journal literature accessible. The 1980s are also known for strides made in which many CD-ROM bibliographic databases became available. This period would also be known as the beginning of the era of the independent end-user. The 1990s saw information storage and retrieval being transformed by developments such as the internet and WWW. The shift in information was now about access to information, instead of collection development. Online libraries were paying for access to resources, instead of buying such resources (Large et al., 1999).

2.6.   PREVIOUS STUDIES ON THE USAGE OF ELECTRONIC DATABASES

In as much as there are studies that found that in several university libraries both locally, regionally and internationally where electronic databases are available but not being optimally used by the students, there are also academic libraries where resources are being heavily used by postgraduate students. Subsequently, there are also various studies which provide an account of what has been researched and published on the use of electronic databases by students locally (Soyizwapi, 2005; Mawindo, 2005), regionally (Dadzie, 2005; Okello-Obura & Magara, 2008; Okite-Amoghuro, Makgahlela & Bopape, 2014, 2015) and internationally (Clink, Crawford & Vicente, 2004; Crawford & Daye, 2000; Majid & Tan, 2002; Dilek-Kayaoglu, 2008). Such studies provide reasons for the usage and non-usage of electronic information resources by postgraduate students in institutions of higher learning. Among some of the reasons advanced for the non-usage of electronic resources locally and regionally are limited off-campus access, slow internet connections, erratic power supply, lack of training on information retrieval skills and lack of awareness of the existence of electronic databases. A study by Akuffo and Budu (2019) revealed "high

awareness levels, adequate computer competencies, derivation of multiple benefits, use of e-resources for academic purposes and inadequate search skills of most respondents because of the dearth of training." Constraints to e-resources usage included access problems, search and retrieval problems and staff-related problems. However, international studies show high levels of usage of electronic databases because of the state of art of information technology infrastructure.

Remarking on factors that affect the utilisation of electronic resources, Tripathi and Jeevan (2008) also cite that user awareness, problems in electronic interlibrary loan and document delivery services, and acquisition and collection development issues also expedite the underutilisation of electronic resources. They went on to denote that lack of distance learning friendly licensing models, budgetary and staffing restraints also affect the usage of electronic resources in some libraries that support distance learners. According to Tripathi and Jeevan (2008), distance learners are detached along the length and breadth of the country, such that they find it difficult to adhere to the main campus library in order to utilise physical and electronic resources of the library. Therefore, the usage of electronic resources at Zimbabwe Open University Midlands regional library is very low. This motivated the researchers to ascertain reasons why the effective utilisation of these resources still remained a mirage to the library, and to establish mechanisms that could be implemented to enhance and realise the effective utilisation of these resources.

Other problems identified by students included "limited off-campus access and slow internet connection because of insufficient bandwidth or slow network" (Soyizwapi, 2005: 78). A research carried out by Mawindo (2005) appraised the postgraduate students' use of print and electronic resources at the College of Medicine, University of Malawi. The mostly used electronic data bases were identified, though the majority of students still preferred print over electronic resources. The reasons for these preferences "included limited access to computer terminals, slowness of the internet and lack of computer skills to effectively search for and retrieve information" (Mawindo, 2005: 108).

Idoniboye-Obu (2013) undertook a study on the use of library resources by PhD students, the type of library resources utilised and contributing causes that influenced such use at the College of Humanities, University of KwaZulu-Natal,

Pietermaritzburg Campus. The study also looked at the competency of doctoral students to use these resources. "The findings of the study revealed that the majority of doctoral students did use the UKZNP Library resources for their research. As regards the importance of library resources, out of 98 respondents who responded to the question, 77 (78.6%) of the respondents indicated that their use of library resources was because of its importance to their research study. Regarding the dependency on library resources, out of 98 respondents who responded to the question, 60 (61.2%) respondents said their extent of use of the library's resources was because they were very dependent on the resources of the library for their research study". In terms of usage of library's resources, "out of the 99 respondents who responded to the question, 50 (53.8%) said they use the library's resources more for their research study. However, the above-mentioned is not specific to the usage of electronic databases only".

Soyizwapi and Hoskins (2009) carried out a related study which found that most postgraduate students used electronic databases. "Two-thirds used the OPAC (Online Public Access Catalogue), CD-ROM (Compact Disc Read Only Memory) and online databases while some students also used other sources to find information. The study also found that students reported different patterns of use and encountered various problems in their use of the electronic databases. Improved service delivery and training of staff and students in the use of the library and its resources were highlighted. The study also made recommendations which included the training of staff and students for the effective use of the online databases".

Nsanzya (2003) "conducted a study which investigated the use of electronic library information resources for information searching and retrieval among academic staff at the Edgewood Campus of the University of Natal". The results of the study revealed that the "most used electronic resource was the internet, followed by the OPAC (69%), while some academic staff used the online databases". It was also found that only 7% of the respondents used both indexes/abstracts and the interlibrary loan service. The study further revealed that "there was evidence of various ICT skills lacking amongst the staff in terms of usage of (a) e-mail, FTP (File Transfer Protocol), Telnet, WWW (World Wide Web); (b) there was also lack of knowledge about the application of the resources; (c) a lack of knowledge about

what resources were available in the library; and (d) a lack of training on how to access and use the resources". For this reasons, among some of the recommendations of the study was that the library "should have an online guided tour, workshops or classes, and meetings between subject librarians and departments to discuss new discipline-specific resources" (Nsanzya, 2003).

Along these lines, Hadebe (2010) also conducted "a study on the use of electronic databases by master's students in the Faculty of Humanities, Development and Social Sciences at the University of KwaZulu-Natal, Pietermaritzburg Campus". The results of the study found that "a majority, 81.3% of masters' students, did use the electronic databases while some of them did not use the databases because of various reasons including lack of search skills, problems with password requirements, lack of knowledge about the existence of the database, and dissatisfaction with electronic database services". Bhatia (2011) "assessed the usage of e-resources by users of 11-degree college libraries in Chandigarh and suggest few measures to take full advantage of IT to make degree college libraries more digitally resourceful to provide information services to users". Likewise, Sinha, Singha and Santa (2011) "evaluated the usage pattern of electronic resources made available in the Assam University Library under the UGC-INFONET Digital Library Consortium, and provide few suggestions and recommendations for the improving access to the internet, e-journals and e-resources".

2.6.1. Accessibility and awareness of electronic databases

A pre-condition to using electronic databases is access to computers and the internet. Dulle (2015) notes that lack of access to computers and the internet can lead to low usage or even non-usage of e-resources. Therefore, optimal usage of e-resources is always associated with maximum access to computers and the internet. There are many places where people can obtain access to computers and the internet. Modiba and Bopape (2017) identified public libraries as some of the places where people can get access to computers and the internet. At universities, students can access computers and the internet in computer laboratories, in university libraries and in research commons. A study by Mgobozi and Ocholla (2002) shows

that today, access to the internet in universities premises is common. Therefore, with much improved access to the internet at universities today, it is assumed that the usage of electronic databases by postgraduate students will improve.

Awareness is knowledge about particular information and is manifested through a particular behaviour. The more people are aware of a particular information resource, the more likely they are to use it. In Abinew and Vuda's (2013) "survey on the acceptance and use of electronic library services at universities, respondents were asked about their awareness of the available e-library services, and to indicate their answers by way of saying *Yes, No and to some extent*". The majority of the "respondents (57.97%) responded *To some extent* to indicate that they have only limited awareness about the existence of e-resources and didn't know well and in detail, while 20.65% of respondents do not know anything about the existence of the e-library services at all. Only 21.38% of the respondents were well aware of the existence of the e-library services. They also found in the same study that there is no significant difference in awareness of e-library services that existed between universities, academic staff and postgraduate students, and among streams".

Similarly, a study by Dolo-Ndlwana (2013) "on the use and value of library's electronic resources by academic and postgraduate students at Cape Peninsula University of Technology found that the majority of the respondents used electronic resources, but a few respondents did not use e-resources because they were not aware of them. Aina (2014) also opines that the majority of respondents studied "were aware of academic journal 59 (69.4%), followed by JSTOR 48 (56.5%) as well as dissertation and theses and Ebscohost with 46 (54.1) and 43(50.6) respectively". Tyagi's (2011) survey "on the use and awareness of electronic information sources at IIT Roorkee, India, found that users have knowledge about the availability of electronic journals, but many use them as the supplementary way to use information. Many users need to be aware of the complete potential of electronic journals". Satpathy and Rout (2010) investigated the use of e-resources by faculty members of C.V. Raman College of Engineering (CVRCE), and found that postgraduate students are aware of various types of e-resources, e-databases, and e-journals and suggests the need for the improvement in access facilities with high internet speed and subscription to more e-resources by the central library.

"However, the preference for the electronic format is related to the discipline and age of the respondents and is higher among academic status. The present survey reflects a growing interest in online journals among users. The study also revealed that most users are aware of the availability of online journals through the library, and can make maximum use of it for various purposes and survey on awareness and use of electronic information resources by faculty members of Indian Institutes in Dubai International Academic City revealed that the majority of faculty members were aware of and used e-resources. They study further confirmed lack of knowledge and the use of library specific resources such as e-theses, patents and CD-ROM databases". (Ahmad & Panda, 2013)

Gunasekera (2010) studied "the use of library resources at the University of Peradeniya's main library and revealed that more emphasis is needed to promote awareness and use of EIR among students due to their lack of use". It is only through training in the form of information literacy, bibliographic instruction and other library programmes that users can become competent in the use of information technology to access electronic databases.

Rehman and Ramzy (2004) investigated "the awareness and use of EIR among health academics. The results showed that libraries are extensively used for research needs, preparation of lectures, and for obtaining current knowledge". "Lack of time is the main reason given for not using electronic resources (37%), and unfamiliarity with computerised searching comes next (22.6). Sharma (2009) reported that 80.77% of teachers and 86.67% of research scholars are able to access the e-resources very easily. It was further reported in the survey that 51.92% of teachers have taken training in regard to the use of electronic resources" Rehman & Ramzy, 2004).

A study by Kwadzo (2015)" examined the awareness level and usage of electronic databases by graduate students at the University of Ghana. The focus was on graduate students in Departments of Geography and Development Resource, and Information Studies. The findings revealed that students were very much aware of the databases available to them as indicated by 96.9% and 93.8% indicated to use them. The study also established that the majority of students knew about the databases from their lecturers. Further, the limited number of databases that they

knew, they were satisfied with them and claimed that these databases have impacted on their learning and research activities. In light of these findings, it is recommended that librarians, especially subject librarians, should heighten the publicity of the databases and research guides to both students and faculty so that they would become familiar with them in order to use them more effectively". Renwick (2005) "proposed that, although the faculty members that she investigated were regular users of electronic resources, there was still a need for marketing and user instruction".

2.6.2. Usage of electronic databases

Access to electronic databases in higher education institutions is rapidly increasing. "In view of the potential advantages and benefits of e-resources over the print in the modern electronic information environment, accessibility and utilisation of e-resources is fast becoming a norm in research at universities around the world" (Ani, 2013). Tahir, Mahmood, and Shafique (2010) argued that students in the humanities "are generally reluctant to conduct literature searchers using electronic databases because they often involve intangible or vague topics, which are difficult to express in concise language or indexing terms. Furthermore, they mentioned that training on ICT, lack of time to conduct searchers, lack of training to use EIR products, lack of computer hardware and software, lack of support and language barriers were factors affecting the use of these resources in libraries".

In support of these findings, Damayanthi and Seneviratne (2008) also conducted a "study at two university libraries: the University of Peradeniya library network and the University of Moratuwa library, and discovered that more than 50% of students at both universities agreed with the following statement: Do not trust information on the Internet', Satisfied with information needs met by printed resources only, 'Do not deal with new technology and have problems with the language, as English is the medium of most electronic resources. They revealed that both universities students' poor knowledge of English affects their use of electronic resources in the library".

Agaba, Kigongo-Bukenya and Nyumba (2005) conducted research on electronic databases usage at Makerere University. They found that there was low usage of these resources. In essence, although electronic databases have a number of functional benefits which can be of immense use to students in colleges and research institutions, most students were not effectively utilising these resources in some academic libraries, to the degree that some of the accessible electronic databases had never been utilised at all (Adekiya & Adyemo, 2006; Gakibayo, Ikoja-Odongo & Okello Obura, 2013).

A look at responses by postgraduate students in Library and Information Science (LIS) regarding their attitudes towards online databases shows encouragement. "The majority (72%) of LIS postgraduate students strongly feel that the standard of their academic work would suffer without e-resources". They believe that in order to perform well, they cannot avoid e-resources such as databases. Dadzie (2005) conducted a research "on the usage of electronic databases by students and academics of Ashesi University, Ghana, in order to determine the level of use, the type of information accessed and the effectiveness of the library's communication tools for information research". The study revealed that "general computer usage for information access was high because of the university's state-of-the art information technology (IT) infrastructure. The usage of some internet resources was also very high but the use of scholarly databases was quite low. This low patronage was attributed to inadequate information about the existence of these library resources: "Some reasons attributed to low patronage of online databases included a lack of awareness of electronic resources, lack of time to access electronic databases" (Dadzie 2005).

A study by Okello-Obura and Magara (2008) "about electronic information access and utilisation at Makerere University in Uganda was carried out to establish the level of computer utilisation skills of Makerere University Library and Information Science (LIS) students; to determine the use of electronic information resources by LIS students; to determine the attitudes of LIS students towards electronic information resources; and to establish the problems faced by LIS students in accessing electronic information resources". "The findings were that the majority of LIS students at Makerere University depended on university computers for their

work, and a few of them accessed the library's electronic resources. The majority of students surveyed were unaware of the Emerald and EbscoHost databases relevant to LIS students, and found accessing e-resources time consuming" (Okello-Obura & Magara (2008).

Ozoemelem (2009) conducted a study on the use of electronic databases by postgraduate students at the Department of Library and Information Science at Delta State University, Abraka, Nigeria. The study population was Masters of Science (MA) and Doctor of Philosophy (PhD) students in the Department of Library and Information Science. The findings were as follows: (a) "there was a low level of skilfulness in the use of ICTs among postgraduate students of the Department; (b) the internet via a cybercafé was the major facility used to access electronic resources by postgraduate students of the Department; (c) there was a low level of electronic resource use amongst postgraduate students of the Department. The study also provided some recommendations which included (a) government should equip library schools with the enabling infrastructure such as adequate power supply and effective internet connectivity that could encourage the usage of ICTs by students; and (b) library schools in Delta State should be staffed with more technical staff to impart ICT skills to students".

2.6.3. Factors influencing the choice of electronic databases

Korobili, Tilkidou and Delistravrou (2006) note that there are several elements have been prominent in relation to online information resource usage. This entails that there are diverse factors and issues that hinder students within university from using electronic resources at their disposal. Jayasuriya (2008) found that "lack of skills, lack of confidence, and lack of knowledge regarding information seeking and evaluative skills are some barriers to effective use of ICT. In addition to this lack of equipment, unavailability of current and relevant EIR which suit to the users' information needs, limited access and no full-text for all journals, inadequate publicity and lack of awareness programme were affecting the use of EIR" (Peiris & Peiris, 2012). Brophy (1993, in Ray & Day, 1998) states "that users do not often appreciate the skills required to search these sources, stating that they are deceptively easy to

use. The ability to find and retrieve information effectively is a transferable skill useful for future life that enable the positive and successful use of electronic resources whilst at university". Odede and Enakerako (2014) note that libraries must "reach a position where the acquisition of information skills is acknowledged as one of the learning objectives for every student entering a university, so that no student leaves without being fully equipped to cope with the information intensive world - the information society - as an end-user".

A research by Okiki and Asiru (2011) divulged on the use of electronic information sources by postgraduate students in Nigeria, and causes that have an influence on such use. "The study covered six universities in the South West of Nigeria. The universities included University of Ibadan, University of Lagos, Olabisi Onabanjo University Ogun State; Federal University of Technology Akure and the University of Agriculture Abeokuta and Lagos State University. A stratified disproportionate random sampling technique was adopted for the study. From the universities of Ibadan and Lagos, 500 respondents each were randomly selected while 1,500 copies of the questionnaire were equally distributed at 250 copies each to the other four universities. The results of the study revealed that one of the factors influencing the use of library electronic information sources (EIS) was that more males 53.82% than females 46.18% used the EIS. Secondly, more master's students, 48.93%, used the EIS than the master of philosophy, 13.85% of students, and followed by 7.91% of postgraduate diploma students and 11.20% of the doctoral students. The study also found that 70.78% had formal training in the use of EIS while 29.22% of students had no formal training".

Miyanda (2012) points out issues believed to contribute towards low usage levels of electronic databases as "lack of encouragement and proper guidance from lecturers and librarians to students to effectively use EIRs; lack of effective internet searching skills by students to effectively exploit EIRs; fewer computers made available for the students to use; poor internet connectivity such as internet corruption, power failure and insufficient bandwidth; and lack of awareness of available EIRs". According to Damilola (2010), "insufficient skills is one of the reasons for the underutilisation of electronic resources". In principle, students must acquire and practise ICT skills necessary to exploit electronic resources (Okello-Obura & Magara, 2008).

Omekwe (2010) suggests "that libraries offer undergraduate researchers information retrieval, IT competence and internet skills in the form of user education to enable them to make use of the library resources effectively". Alakpodia (2010) also reported that "users should gain critical-thinking and technological skills that will allow them to find the appropriate information using computer literacy into their user education programmes. Without effective and holistic user education, there will be barriers to accessing information, especially in an academic environment." At the University of Limpopo, subject librarians organise training to all postgraduate students, and offer information literacy to all first entering students from all the faculties. They teach them how to access our library catalogue, access electronic resources, do referencing and to check plagiarism using the Turnitin software.

Factors such as "currency of material, possibility of downloading or printing the results or desired parts of them, and access to a wider range of information were the most important issues considered by the users in using electronic resources. However, the results of the study indicate that despite the perceived advantages and the big variety of electronic resources and services provided by the library, most resources, and in particular online databases received extremely low use. Lack of awareness of the availability and the potential of certain resources seems to be a serious problem associated with underutilisation. It is interesting that 43.4% of the respondents were not aware of ERIC, the largest digital source of literature in Education. On the other hand, more than one third of the respondents used electronic journals rather frequently. This percentage certainly falls below the library's expectations, but it is also encouraging because it reveals a growing appreciation of the benefits of e-journals and a move towards their use". Quigley, Peck, Rutter and Williams (2002) conducted a "user survey of 230 researchers at a state university to determine the importance of six factors, including speed, convenience, familiarity, currency, authoritativeness, and reliable availability". "Their results revealed that convenience was considered the most important factor in resource use. Researchers have found that accessibility, availability, ease of use, and convenience are common factors associated with online resource usage" (Quigley, Peck, Rutter and Williams, 2002). Pascoe, Applebee and Clayton (1996) suggested that "ease of use, convenience, and accessibility were significant factors related to web information use in academic fields".

According to Xie and Joo (2010) resource quality has been a critical concern in understanding the acceptance of information systems. The information system success model suggested by De Lone and McLean (1992) regard "information quality, which is an equivalent concept to resource quality, as one of the key determinants that influences the use intention of an information system".

> "In order to utilise the growing range of electronic resources, students must acquire and practise skills necessary to exploit them. For students using a variety of on-line databases, it is as though they were parking lot attendants, where every vehicle is not only a different make and model but has a different configuration" (Blandy & Libutti, 1995).

Dutton (1990) suggests:

> "The skills required to maximise the potential of electronic resources are much greater than those required for searching printed sources. These skills include knowledge of the structure of the database and instructions which must be input into the computer by the searcher, as well as an understanding of ways in which the instructions are linked with one another. To this end, Brophy (1993) states that users do not often appreciate the skills required to search these sources, stating that they are deceptively easy to use. The ability to find and retrieve information effectively is a transferable skill useful for future life, and enable the positive and successful use of electronic resources whilst at university".

"While perceived usage refers to the amount of time spent interacting with the web and the frequency of use, variety of use refers to the importance of use and the collection of web package/program use" (Igabaria, Guimares & Davis, 1995). Essentially, the web would often be a tool for wider and more diverse use. Users are increasingly using the web for information retrieval, and communicating etc. via electronic mail or online conferencing. In this study, web experience refers to the experience of web usage, such as the experience of web/online packages, and the internet.

Efficiency associated scholarships declared computer self-efficacy and internet self-efficacy as the main factors in computer or technology usage. Information technology familiarity, nervousness and library sustenance are critical factors that have been

measured against self-efficacy. In addition to these factors, Ren (2000) discovered that self-efficacy in electronic information searching became meaningfully higher after users attended library orientation, and that the frequent use of databases correlates with training. Chien (2012) suggests that "a favourable learning environment and training courses enable users to become familiar with fundamental library operations. All these researchers mentioned many factors that influenced the use of EIR in libraries".

As stated in Wilson (1995) information seeking behaviour models barriers and intervening variables were found to be prevalent in the use of electronic resources in general than the use of electronic databases in particular. Ojo and Akande (2005) in a "survey of 350 respondents examined student's access, usage and awareness of electronic information resources at the University College Hospital (UCH) Ibadan, Nigeria. The study revealed that the level of usage of the electronic information resources is not high. A major problem however identified is lack of information retrieval skills for exploiting electronic resources, thus making the level of usage of resources by medical students very low".

2.6.4. Training on the use of electronic databases

With the advancement of new information and telecommunications technologies and the World Wide Web, training in the use of online databases is also a concern for librarians (Heidi, 1999). Mawere and Sai (2018) advises that "for maximum utilisation of library electronic databases, it is necessary that users are instructed in accessing, browsing and searching information from them". The training of library users to search information from online databases becomes more than necessary. Several studies have identified lack of training on the use of electronic databases as one of the deterrents to utilising online databases effectively and efficiently. A study by Abubaraka and Adetiminirin (2015) showed that "the more postgraduate students are exposed to computer and information literacy skills, the better the use of electronic information resources for their researchers". Similarly, Aderibigbe and Ajiboye (2013) "found that few postgraduate students received training on electronic information resources usage. It was found that students get to know to use electronic information

resources through their own efforts, periodic training in the library and through efforts from some library staff and friends. It is therefore important to assess the level of training which postgraduate students have attended on the use of electronic databases".

The period in which this training is provided is also a cause for concern. Most academic libraries provide user education or information literacy sessions for first year and postgraduate students only. A study conducted by Moyane, Dube and Hoskins (2015) found that "some students highlighted challenges associated with the timing of library user education programmes. These programmes are concurrently run with the registration process when most of the students have not settled down and they have not established their information needs (Moyane et al., 2015). The study further shows that the library makes arrangements for postgraduate students to attend electronic search and retrieval strategies. Therefore, most libraries arrange information literacy education for their students either when they are at first year level or postgraduate level. There is a gap of training on the use of electronic databases when they are second and third year levels. Determining the period or the time on which library training on the use of electronic databases was offered library the academic library would therefore, also serve as the determinant of the usage of electronic databases. This is supplemented by the information on the specific databases on which the postgraduate students have been trained on".

2.6.5. Problems experienced using of electronic databases

The body of literature revealed various problems and factors hindering effective information seeking behaviour of postgraduate students in the humanities, including Baron and Strout-Dapaz (2001: 319), Abdoulaye (2002: 193), Andrade (2006: 131), Amsberry (2008: 356), Kwon (2009: 1030), Smith and Khawaja (2011: 704), and De Araujo (2011: 2). These were summarised and discussed in terms of the following five key themes: limited English language proficiency; inadequate information literacy and computer skills; plagiarism challenges; cross social cultural barriers; and financial resources. It was found that most humanities were not proficient in electronic sources, and chose to use print sources because they found them easier

than to navigate, even if they were not faster to use. Humanities students required unique queries such as geographical names, individual names and discipline names.

In a study by Tahir et al. (2010), it was found that most humanities scholars were not proficient in information searching in electronic sources. It was also found that they chose to use print sources because they found them easier to navigate than electronic resources. They also required resources such as CD-ROMs, pictures etc. because they are visual thinkers. Humanities scholars also ran into the problem that the databases that they use are not able to support their queries because of their complexity. It was also found that humanities scholars would rather use primary sources over electronic sources because of this flow.

There are many challenges faced by libraries today in the use of electronic databases. Lack of awareness of the existence databases, inadequate ICT facilities for resource sharing/ networking, absence of institutional repositories, the high cost of internet connectivity, lack of electronic resource sharing policies/standards in the institutions, declining budgets for e-access, uneven development of libraries in EIR acquisition/ licensing, inability of libraries to meet the minimum commitment required to join consortia, nationally and internationally poor bibliographic control of available e-resources by university libraries, insufficient bandwidth for easy access to the internet, lack of government support to universities on e-resource sharing, and inadequate number of librarians with web technology skills. Without awareness about the existence of electronic information resources in the library, students and researchers will not know which databases they have in their institution. To make students and researchers aware of electronic resources available in the library, librarians need to conduct training where they can teach students how to access those databases.

University libraries who engaged in electronic resource sharing in Nigeria have experienced a number of challenges. These have been discussed by Anasi, Akpan, and Adedokun (2012), Nwalo (2012), Obaseki, Oye and Mamman (2012), and Nwose and Jiagbogu (2011). The challenges identified include: lack of relevant ICT skills and awareness of the existence of knowledge sharing platforms, inadequate ICT facilities, unstable power supply and low level of conversion of local content for national and international access, among others. From the above review, it is evident

that the majority of the literature dwelt generally on electronic resources and e-resource sharing. With the exception of Aina's (2013) work, none of the works investigated prospects and challenges of e-resource sharing. In addition, none of the studies focused on the state of e-resource sharing in the three southern geopolitical zones of Nigeria.

Etim (2006) identifies lack of internet access as a major factor challenge that has denied Nigerian students access to the latest information for their learning and research. However, Etim (2006) highlights efforts and strides attempted by the Nigerian university libraries to support libraries with internet access for efficient information access and retrieval by postgraduate students through various initiatives, such as "Nigerian Universities Network (NUNET), National Virtual Library Project (NVLP) and Nigerian Virtual Library Consortium (VLC) to provide reliable internet connectivity in Nigerian universities" (Okon, 2010a: 560). According to Okon (2010a: 555), "though the internet has been into a major academic activity in Nigerian universities in the past decade, there still exists a digital divide or inequitable access within the system. People who are mostly affected by inequitable access to the internet at these universities have, in fact, been postgraduate students". Afolabi (2007) notes that "shortage of current and up-to date information for research in Nigerian university libraries has been a major source of concern to both the library management and the research community".

Bozimo (2007) also affirms that statistics show that electronic information resources usage in Nigerian university libraries is low. As indicated by research carried out on the use of the cybercafé at DELSU by Adoni, Omedeko and Otolo (2004, 387), "Yahoo and Google are the search engines most frequently by most of the students. This low usage of EIRs at DELSU may contribute to the reason for postgraduate students not excelling and enhancing their research skills through electronic media". The study focused its attention on the challenge of using EIRs for academic research by postgraduate students at DELSU.

Findings by Okite-Amughoro, Makgahlela and Bopape (2015, 24) showed that postgraduate students' "optimal use of EIRs at DELSU is hampered by limited access to some electronic information resources due to limited space, low bandwidth, and erratic power supply". It is therefore, recommended that DELSU

should provide space and power supply, and address some of the issues deterring equitable access to electronic information resources. Evidence from the percentage responses shows that all identified factors posed challenges to electronic resource sharing among the libraries studied. The most serious issue was lack of institutional policies and standards.

A slow rate of building local content for national/ international access "scored 11 (48%) strongly agreed, 10 (43%) agreed, with only 2(9%) of the librarians recording strongly disagreed. Absence of institutional repositories in most of the libraries was rated strongly agree by the 7 (30%) librarians and 14 (61%) agree". Other challenges include inadequacy of librarians' technological skills, uneven development of libraries for electronic information resource acquisition and licensing, high cost of internet connectivity, inability of libraries to meet minimum requirements for joining consortia, lack of government support to universities for e-resource sharing and poor bibliographic control of available e-resources by libraries. This work is therefore designed to fill this gap.

A study by Adeyoyin et al. (2016) "find that lack of adequate knowledge of EIR hardware operations, lack of financial capacity to acquire EIR gadgets or tools, erratic power supply, safety of EIR gadgets and lack of adequate knowledge of different application software were considered by the seminarians as some of the challenges of EIR usage. This finding is in line with the problems and challenges militating against the use of EIR that have been highlighted by some authors in the field of library and information science". Adeyoyin, Idowu and Sowole (2016) have reported problems of "funds, electricity supply, telecommunication connectivity, and human expertise as factors militating against the use of EIR". The IFLA had declared that academic libraries and implementation of EIR need urgent sustainable technology strategies and policies. The IFLA noted problems of digital gap issues, internet connectivity, bandwidth issues and inadequate EIR facilities (computer) technical expertise.

2.7. SUMMARY

This chapter looked at previous literature regarding the usage of electronic databases by postgraduate students. The theoretical framework on which this study is based was discussed, that is, information seeking behaviour of students in the humanities. The literature review reveals that electronic databases emerged as a means of accessing academic information with the emergence of the World Wide Web. Subsequently, various studies were conducted to look at the usage of these resources. Among some of the reasons advanced for the non-usage of electronic resources locally and regionally are limited off-campus access, slow internet connections, erratic power supply, lack of training of information retrieval skills and lack of awareness of the existence of electronic databases. This chapter also highlights that electronic information resources are essential tools of empowering postgraduate students in the humanities. However, literature review reveals that postgraduate students in the humanities need skills to make adequate use of online databases. If these skills are not there to enable them to navigate the internet, their academic and research needs will suffer a setback. The effective use of library materials in both print and electronic resources is expected to enhance the quality of teaching and research to postgraduate library and information science students at any institution.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. INTRODUCTION

The previous chapter dealt with the review of literature on electronic databases and how it bears on academic research by postgraduate students. The main purpose of the current chapter is to give a detailed discussion of the research methodology and design used to collect data of the study. This chapter attempts to answer questions such as which data collection methods were employed in the study, how they were applied and why the methods of data collection adopted were chosen over other methods. This chapter also discusses the target population, sampling method, data collection techniques used and research instruments. Methods of determining or ensuring the validity and reliability of the instrument used are also discussed in this chapter.

Research methodology is defined "as the methods, techniques and procedures that are employed in the process of implementing the research design or research plan, as well as the underlying principles and assumptions in their use" (Babbie & Mouton 2008:647). This entails that methodology refers to the way one collects and analyses data., "Methodology surveys always give the impression that the research design followed calm, linear and orderly development from your initial idea, its determining philosophy, choice of methods, design of research instruments, data collection, data analysis, through to its final resting place in a document or presentation" (Hammersley 1993; Thody 2006: 99).

3.2. RESEARCH APPROACH

There are three types of research approaches that can be used in any research, namely, qualitative, quantitative and mixed method approaches. According to Creswell (1994), "the qualitative approach is an inquiry process of understanding a social or human problem based on building a complex, holistic picture, formed with words and reporting detailed views of respondents, while quantitative research is an

inquiry into a social or human problem, measured with numbers, and analysed with statistical procedures".

3.2.1. Qualitative research

Maree (2016) defines qualitative research "as a research methodology which is concerned with understanding the research process and social context which underlie various behavioural patterns, and is mostly concerned with exploring the why questions of research". This approach aims to gather an in-depth understanding of human behaviour and the reasons behind or that evoke that behaviour. Leedy and Ormrod (2005) note that qualitative research can be used when the researcher seeks to expose the nature of certain conditions, circumstances, states, settings, processes, programmes, relationships, systems or people; to gain new insights into a particular phenomenon; to develop new concepts or theoretical perspectives about a phenomenon or to discover problems that exist within a phenomenon; to testify the validity of certain assumptions, claims, theories or generalisations; and to judge the effectiveness of particular policies, practices and innovations (Leedy & Omrod, 2005). The most commonly used research designs in qualitative research approach are case studies, ethnographies, phenomenological studies, grounded theories and content analysis.

According to Pickard (2013), "the most important components of the qualitative methodology are literature review, theoretical framework and fieldwork in a natural setting, using a human instrument, purposive sampling, appropriate data collection techniques, inductive analysis, emergent design, iteration of hypothesis, grounded theory, negotiated outcomes, and forming a tentative working hypothesis leading to the transference of findings based on contextual applicability". "The qualitative researcher allows the phenomenon under investigation to speak for itself and tends to be involved with the phenomenon" (Mouton & Marais, 1990:163). This is in contrast with the quantitative researcher, who often wants to "impose a system upon a phenomenon and remains distant from the phenomenon being researched".

3.2.2. Quantitative research

Babbie and Mouton (2008:405) describe quantitative research "as a method that translates data into mathematical forms in order to be quantifiable and to analyse different variables". Quantitative research provides tables, graphs and charts to present results of data gathered by the researcher. The most universally known research designs in quantitative research approach are surveys, experiments and correlational research designs. Survey research has been defined as the research approach where one collects data from all or part of the participants to evaluate the relative incidences, distribution, and interrelations of naturally occurring variables (Powell & Connaway, 2004:59). The survey research design is divided into descriptive and exploratory survey.

The descriptive survey research design, which is adopted by this study look at "trends and patterns within the sample population group that can be generalised to the defined population of the study" (Pickard, 2013: 112). Furthermore, the data gathered in descriptive surveys are usually a mixture of measurement, amounts and brief narratives, which are then analysed using descriptive statistics such as measures of central tendency and standard deviations. The basic purpose of a descriptive survey is to describe characteristics of a population of interest, estimate proportions in the population, make specific estimates and test relationships (Powell & Connaway, 2004:87).

The exploratory survey research design seeks to establish cause and effect relationships between variables. Pickard (2013: 113) argues that the cause and effect relationship survey always takes place in a natural setting. Under this condition, it is impossible to establish the definitive cause and effect relationship, and therefore the correlational relational research design is proposed instead of the exploratory survey research design. The correlational research design attempts to investigate cause and effect relationship between variables. Furthermore, Hopkins (2008) defines "the quantitative research design as quantifying relationships between variables. Variables are things like weight, performance, time and treatment. One measures variables on a sample of subjects, which can be tissues, cells, animals or humans. You express the relationship between variables using effect statistics, such as correlations, relative frequencies, or differences between means."

3.2.3. Mixed method research approach

Creswell and Plano-Clark (2007:5) describe mixed-methods research "as a research design which focuses on gathering, analysing and mixing both quantitative and qualitative research approaches in a single study". Its central proposition is that the combination of quantitative and qualitative approaches provides a better understanding of a research problem than a single research approach. A mixed-methods research design is convenient to apprehend the best of both quantitative and qualitative approaches (Creswell, 1994). Maree (2016) states that in mixed methods research, the researcher builds knowledge about real-world issues based on practicality, which places more emphasis on finding answers to research questions than of the methods used. The mixed-methods research approach is both a method and methodology of conducting research that involves collecting, analysing, and integrating quantitative and qualitative research in a single study or a longitudinal programme of inquiry.

Kothari (2004: 5) states that in qualitative and quantitative approaches, there are two basic paradigms of research, namely, positivist and interpretivist research paradigms. Each paradigm has its own ontological, methodological, epistemological stance as well as its own purpose (Pickard, 2013: 7). The positivist research paradigm believes in tangible, social reality which exists independently and naturally, while the interpretivist believes in multiple, constructed realities that cannot exist outside the social context that creates them. Maree (2016: 23) noted that positivism postulates that only objective, observable facts can be the basis of science, while interpretivism foregrounds the meaning that individuals or communities assign to their experiences. This entails that positivism takes things as they are, and is based on laws of nature, while in interpretivism, subjective meanings are crucial to achieving understanding and meaning (Maree, 2016: 23). This study is based on the interpretivist research paradigm in that it is concerned with understanding the usage of electronic databases from subjective experiences of individuals.

3.2.4. Choice of research approach

This study used the quantitative research approach for the researcher to explore and describe the utilisation of online databases by postgraduate students at the Faculty of Humanities at UL. The approach is used to answer questions about relationships with the purpose of explaining, predicting and controlling phenomena. Leedy and Omrod (2005:94) explain that "this approach is sometimes called the traditional, experimental or positivist approach". The quantitative approach allows the researcher to collect accurate data and to analyse the participants' opinions in order to gain a clear and better understanding of the utilisation of electronic databases by postgraduate students. Leedy and Omrod (2005) identify quantitative research methodology as dealing with data that are principally numerical. It will allow the researcher to collect accurate numerical data in order to arrive at conclusions regarding the utilisation of electronic databases by postgraduate students.

Cresswell (1994:2) defines quantitative research as an inquiry into a social or human problem, measured in numbers, and analysed using statistical procedures. According to Neuman (1996:522), the aim of the quantitative approach is to draw a sample from the population so that the results of studying the sample can then be generalised back to the population. In this study, the sample size was determined by characteristics and homogeneity of the population.

3.3. RESEARCH DESIGN

According to Bryman (2004: 26), "a research design relates to the criteria that are employed when evaluating social research." It is, therefore, a framework for the generation of evidence that is suited both to a certain set of criteria and to the research question in which the investigator is interested. Research design is the blueprint or overall plan of obtaining answers to research questions. It is the plan according to which the research obtains participants (subjects) and collect information from them. It is a description of what the researcher is going to do with the participants with a view to revealing findings and reaching conclusions about the research problem (Welman & Kruger, 2002).

This study adopted the cross-sectional research design or research time horizon. Shaughnessy, Zechmeister and Jeanne (2011) describe the cross-sectional research design as one in which information is collected from the population, which describes the characteristics of the population at once, and then make inferences about the effect of one or more variables on an outcome variable. This study therefore collected information about the characteristics of postgraduate students in the Faculty of Humanities at the University of Limpopo; and then measured their extent of awareness and usage or non-usage of electronic databases, as well as factors that influence their usage of these resources. "In cross-sectional survey design, the researcher collects data at one point in time. This research design had the advantage of measuring current attitudes or practices" (Tahmina, 2018).

3.4.   POPULATION

Research revolves around the population, which is the entire set of individuals about which inference is made (Pickard, 2013: 60). Heilman (2012) affirms that a study population is a group of people from which research conclusions are drawn. Therefore, "in research, the word population refers to the total number of people, groups or organisations that could be included in the study" (Bertram & Christiansen, 2014: 55).

Furthermore, Gay and Airasian (1996:112) define population as a group of interest to the researcher, the group to which she or he would like the results of the study to be generalisable. A research population, according to O' Leary (2010), refers to all people living in a particular community, state, country, cultural group, workplace, school or district, who have a common interest or common traits. It is a set of individuals who have common characteristics and who meet certain criteria to the researcher.

The target population of this study were MA and PhD students in the Faculty of Humanities, comprising of the School of Languages and Communication Studies, School of Social Sciences and School of Education. The total population of the registered postgraduate students at the time of collecting data in 2018 was 625. The entire population of 625 master's and doctoral students in the Faculty of Humanities

at UL enrolled on a full time and part time basis in the year 2017-2018. Irrespective of gender, who are using the UL electronic databases are participated in this study. Some of the postgraduate students were staff members in the Faculty of Humanities at UL.

3.5. SAMPLING

Sampling is the process of selecting a portion of the population to represent the entire population. Bless and Higson-Smith (2000) define "sampling as a technical accounting device to rationalise the collection of information; to choose in appropriate way the restricted objects, persons and events from which the actual information will be drawn". According to Polit and Hunglar (1999: 654), "a sample is a subset of the population selected to participate in a research study". The sample is chosen from the study population, which is commonly referred to as the target population. The main purpose of sampling is to achieve representation. Sampling is a method of selecting a representative subset of the population called sample. Sampling makes research more accurate and economical.

Schools	Population Master's	Doctoral	Total	Sample frame
School of Language and Communication studies	175	12	187	47
School of Social Science	179	82	261	65
School of Education	131	46	177	44
TOTAL	485	140	625	156

TABLE 3.1: Statistics of postgraduate students in the Faculty

There are two methods of sampling commonly used in research, namely, probability and non-probability sampling.

3.5.1. Probability sampling methods

According to Naheem and Huma (2017), "probability sampling is a sampling technique in which the subjects of the population get an equal opportunity to be selected as a representative sample". In probability sampling, each sample has an

alike chance of being chosen or selected to participate in the study. One can say that a probability sample is one in which each element of the population has a known non-zero probability of selection (Naheem & Huma, 2017). This method of sampling gives the probability that our sample is representative of a population. Probability sampling includes simple random sampling, systematic random sampling, stratified random sampling and cluster sampling (Maree, 2016: 196). With probability sampling techniques, for example, "if there are 500 students in your college, you adopt a method in which all the 500 students have an equal chance to be participants in your study. In other words, to choose a sample, probability sampling uses random sampling techniques. For example, if you had a population of 100 people, each person would have odds of 1 out of 100 of being chosen. In this sampling method, there is an utmost probability of a representative sample of the whole population" (Showkat & Parveen, 2017).

3.5.2. Non-probability sampling methods

Non-probability sampling is a method of sampling wherein it is not known which individual from the population will be selected as a sample. Unlike the probability sampling method, the non-probability sampling methods employs non-randomised methods to come up with the sample. The non-probability sampling technique mostly encompasses judgment. Instead of randomisation, participants are selected because they are easy to access or share a common characteristic which will make it possible to draw rich data from the participants. For instance, if your colleagues and friends have a better chance to be part of your sample.

Even though, non-probability sampling is a convenient and opportune method of choosing participants for a study, in certain cases, it is the only method available. Non-probability sampling includes convenience/purposive sampling, quota sampling, and snow ball sampling methods. Each method of sampling has its own advantages and limitations. However, probability sampling is preferable, since its results can be generalised (Naheem & Huma, 2017).

3.5.3. Choice of sampling method

The researcher of this study intended to use the probability sampling method, that is, simple random sampling, which "is a procedure of creating a sample where each member of the population has an equal chance of being selected" (Pickard, 2013: 61). Maree (2016: 192) advises that "to draw a simple random sample, it is necessary to have a complete and up-to-date sample frame available, so that each member of the population should be numbered sequentially such that each element can be identified". Table 3.1 represents the distribution of registered master's and doctoral students in the Faculty of Humanities by schools as well as how they were sampled to arrive at a sampling frame.

To arrive at a sampling frame, systematic random sampling was used, where participants were selected by picking the ones who are counted on the fourth interval in every school in the Faculty of Humanities. The last column in table 3.1 shows the number of participants counted on the fourth interval. The sum of all three schools made hundred and fifty-six (156). This entails that the targeted population of the study was 156 students. However, the researcher managed to collect questionnaires from only 125 students, which is sufficient for the researcher to generalise the findings to the entire population (Punch, 2005:102).

The researcher decided to distribute the questionnaire to postgraduate students who were readily accessible. This method of sampling is used to accommodate every unit of the population of postgraduate students, whereby the students who are available on the day of collecting data were given questionnaires to complete. This is known as accidental sampling. "Accidental sampling, also known as grab or opportunity sampling, is a form of non-probability sampling that involves taking a population sample that is close at hand" (Ilker, Sulaiman & Rukayya, 2016). The researcher selects the closest live persons as respondents.

Accidental sampling is the most commonly used sampling method in conducting pilot studies (Maree, 2016: 197). Acharya, Prakash, Saxena and Nigam (2013) argue that the sample is chosen on the basis of convenience of the investigator. Often the respondents are selected because they are at the right place at the right time. The advantages of accidental sampling are that it is most commonly used in populations which are not easy to locate, it is less expensive and there is no need for a list of all

the population elements. However, they are not without limitations; the foremost being that variability and bias cannot be measured or controlled. Bless et al. (2006:105) define accidental sampling as the most rudimentary one, which consists of taking all cases on hand until the sample reaches the desired size. The researcher opted for accidental sampling because it is cheaper and adequate for homogenous population.

3.6.   DATA COLLECTION INSTRUMENT

Data collection is a process of gathering research data about the research topic. This is done in a systematic way for statistical analysis purposes. There are various types of data collection instruments, including questionnaires, interviews, observations, document studies and records analysis. This study used the questionnaire as a data collection method. A questionnaire is a written list of questions, whereby answers are given by respondents. In a questionnaire, the respondents read the questions, interpret what is expected and then write down the answers. Questionnaires are written questions which are administered by mail or handed to them personally by the researcher in their homes, at work, at school or any other place; they are returned to the researcher after completion (Sarantakos, 2005).

Self-administered questionnaires are in most instances, used without any direct personal contact with respondents (Kumar, 2011:145). Questionnaires are the most popular instruments for user studies. They can be extremely flexible and helpful to gather information from large or small numbers of users on any topic (Chowdhury & Chowdhury, 2011: 40). The questionnaire as a data collection method is effective for quantitative data because it is relatively easy to collect and analyse (Cuffe, 2002). Questionnaires are also helpful in user studies to reach a large number of respondents very easily in order to obtain information. They are also an instrument that provides numerical data for respondents and keep the identity of respondents anonymous.

Questionnaires were therefore chosen as a tool to collect data because they are easy to be prepared and administered; they allow the researcher to distribute them to respondents and to return them after completion. They are flexible in that they can

be used to collect a wide range of data in a variety of circumstances (Pickard, 2013: 2017). One other reason for choosing the questionnaire as data collection method in this study is that data obtained from questionnaires are easy to tabulate and interpret. Affordability is also one of the primary advantages of written questionnaires. It is the least expensive means of data gathering (Kumar, 2011). Questionnaires can be given to many people simultaneously, that is, a large sample of the target population can be reached (Debois, 2019). In this case, questionnaires were handed to the respondents, who completed them in their own space. A questionnaire is an instrument through which information is elicited from respondents for the purpose of answering research questions.

Questionnaires are divided into open and closed ended questions. Closed ended questions are those questions which allow the participant to choose from the different responses provided by the research, while open-ended questionnaires allow the participants to respond freely (Babbie, 2005). The researcher adopted the closed-ended questionnaire as a dominant survey method to collect quantitative data because it was more convenient and cost-effective for the researcher due to cost and time constraints (Bertram & Christiansen, 2015). The responses were provided for the respondents to choose the option that best reflects his/her own words. Closed ended questions were used as the dominant type of questions in order to collect quantitative data, while open-ended questions were used to determine the respondents' views on the topic under investigation.

Mahlangu (1987:84-85),

> "A good questionnaire must deal with a significant topic which can be recognised by the respondent as important enough to justify spending his or her time on. It must be as short as possible, but long enough to cover the essential information and must be attractive in appearance, neatly arranged and clearly duplicated or printed. Each question deals with a single concept and should have simple and straightforward terms and questions presented in a proper order, proceeding from more general to specific and selective responses" (Mahlangu, 1987: 84 – 85).

Because of the advantages of written questionnaires mentioned above, the researcher decided to use the questionnaire in this study. However, the researcher was also aware of the disadvantages that this kind of questionnaire has. Van den Aardweg and Van den Aardweg (1988: 190) and Kidder and Judd (1986:223-224) caution "that questionnaires do not provide the flexibility provided by interviews. People are generally abler to express their views verbally than in writing. Questions can be answered only when they are sufficiently easy and straightforward to be understood with the given instructions and definitions". Furthermore, Kidder and Judd (1986) add that the questionnaire does not make provision for obtaining views of more than one person at a time.

3.7.   QUESTIONNAIRE DEVELOPMENT AND IMPLEMETATION

As noted by Huysamen (1994), "if a questionnaire is made up exclusively of multiple choice items, it may be a good idea to conclude it with an open-ended question with a view to determining whether anything of importance to the respondent has not been omitted". The main body of the questionnaire was divided into four sections. Section A of the questionnaire was to identify the characteristics of the population by asking them their background information such as the degree registered, school, age, gender, computer and internet access.

Section B asked them about the extent to which they are aware of electronic databases using Likert scale. Section C asked them about the extent to which they use electronic databases which the UL library subscribes to, followed by factors and problems that influence their use of electronic databases in sections D and E respectively.

The researcher distributed self-administered questionnaires to a group of postgraduate, master's and PhD students in the Faculty of Humanities. The questionnaires were distributed from the beginning of July 2018 to the third week of November 2018. The first batch of questionnaires was distributed to postgraduate students who were attending library instruction in the library organised by the subject librarians from Faculty of Humanities. The researcher distributed 40 questionnaires.

After the presentation, the researcher asked them to fill the questionnaire. Some returned the questionnaires after completion; others returned them the following day.

Those who returned them the following day gave staff at Circulation Desk on the ground floor of the UL library. In the month of August 2018, more than 60 questionnaires were distributed to the respondents. The researcher went to the postgraduate students' halls of residence and handed the questionnaires to master's and doctoral students physically. The researcher returned to collect the questionnaires on the same day in order to minimise non-responses. However, some respondents promised to return the questionnaire the following day as they were busy with something on the day of distribution.

The researcher made appointments with the admin officers from the three schools making up the Faculty of Humanities to ask for a list of all staff members (lectures) who registered master's and doctoral (PhD) in the Faculty of Humanities. On the 19-20 November 2018, the researcher distributed the questionnaires to 20 staff members in their offices and came back the following day to collect them. These staff members are those who registered as postgraduate students, doing their master's and doctoral degrees. They are working at the university as lecturers and librarians. This was done by travelling several occasions to distribute the questionnaires to the respondents during classes, workshops and training organised by Faculty of Humanities and subject librarians in the library through library instructions. Self-administered questionnaires allow the researcher to get the survey done in one space of time. It also guarantees a high response rate. Once all questionnaires are collected and returned, the number of questionnaire will be calculated to ensure that all were returned.

3.8. ETHICAL CONSIDERATIONS

Before data could be collected, there were certain ethical issues that were taken into consideration and adhered to. Firstly, the researcher applied for ethical clearance certificate from the Turfloop Research Ethics Committee (TREC) after the research proposal was accepted by the Faculty of Humanities Higher Degrees Committee. The ethical clearance certificate was issued on 04 July 2017. Its number is TERC HSD2017-04/007. The researcher produced this certificate to convince students to

participate in research. The certificate is attached as appendix 1. The research also provided the participants with a consent form, which is attached as appendix 2. The purpose of the form was to guarantee the participants that anonymity and confidentiality would be ensured and that the participants participate voluntarily and they are welcome to withdraw at any time from the study.

Thirdly, the questionnaire had a covering letter whose aim was to introduce the respondents to the research topic and researcher, to neutralise any doubt or mistrust that the respondents might have about the study, to motivate them to participate by answering the questions, and to further ensure anonymity and confidentiality (Sarantakos, 2005). This was followed by instructions on how to complete the questionnaire, to ensure that the respondents have information on how to fill it.

3.9.   PILOT STUDY

Pilot study is a small or trial run done in preparation for a proper study. The aim of the pilot study is to obtain information in order to assess the feasibility of the data collection instrument (Polit & Hunglar, 1999). De Vos, Strydom, Fouche and Delport (2005:215) state that the purpose of a pilot study is to give direction to the main investigation. The questionnaire will be pre-tested before the data collection begins.

Respondents of the pre-test provided positive insights that were incorporated in the final version of the questionnaire. Such changes to the original questionnaire included restructuring the questionnaire into two main parts, reorganising the questions so that those pertaining to an objective are in one section and reflects the objectives of the study. As proposed by Babbie (1997), it is imperative that a questionnaire be pretested before it is implemented to root out ambiguous questions and to clarify the purpose of the questions. The pilot study was conducted with 10 postgraduate students in the Faculty of Management and Law of the University of Limpopo to check if the questions were straightforward or unambiguous, and if the overall objectives of the questionnaire would be achieved. The main purpose of the pilot study is to ensure the validity and reliability of the instrument used to collect data, and in this case, the questionnaire. Validity is defined as accurateness of

measurement, the extent to which a data collection tool or instrument measures that which is supposed to be measured. The purpose is to establish to the degree to which the measure is accurate for a specific purpose. "Validity refers to the capacity of research techniques to express essential features of concepts being studied, and to measure what the methods were intended to measure" (Leedy & Ormrod, 2005). "Reliability refers to the degree to which a measure yields consistent results" (Leedy & Ormrod, 2005). It is argued that reliability evaluates quality in a quantitative study with a "purpose of explaining" while the quality concept in a qualitative study has the purpose of "generating understanding" (Stenbacka, 2001, 551). The researcher ensured validity and reliability of the questionnaire by conducting a pilot test, which is done to determine if there are questions that are difficult to understand, so that the researcher can revise these questions before the actual study.

Before the data collection instrument in the form of questionnaire was distributed to the participants, the researcher confirmed both the reliability and validity of the questionnaire by conducting a pilot project prior to the major study. This was done by distributing the questionnaire to a few postgraduate students who were known to the researcher and requested them to complete it. The results of the pilot study were analysed and the value thereof calculated. For reliability purposes, the percentage agreement or the Cronbach Alpha was used, and the value of 0.7 and above was realised. Therefore, the questionnaire was considered reliable to use in the study (Nunnally & Bemstein, 1994). Furthermore, from the responses solicited in the pilot study, ambiguous questions were identified and corrected. Minor editorial and grammatical changes were made to the questionnaire from the comments received from the pre-test population.

3.10. DATA ANALYSIS

Burns and Grove (2014:502) define data analysis as the techniques used to reduce, organise and give meaning to data. After data has been collected, it was prepared for analysis by summarising it into statistical measures. The data was then collected, sorted and coded using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics was compiled and frequency distributions, percentage, mean

and standard deviations were obtained, and presented in the form of tables, pie charts, bar graphs and analysed. "Coding is the process of structuring data into an analyzable form" (Birley & Moreland, 1998: 58). Data should therefore be organized and presented in a way that makes denotation to the researcher and the readers. In quantitative data, one either uses letters, numerals or alpha-numeric codes to describe the data, which invariably becomes capable of being analysed without reference to each of the responses of the sample (Birley & Moreland, 1998: 58). Quantitative data were, therefore, analysed using SPSS and represented in the form of charts, frequencies and tables. The software package enables researchers to enter and store data, utilise retrieval strategies, engage in statistical package, and to generate graphs and reports.

3.11. SUMMARY

This chapter describes what was done in the study in order to collect data to answer the research questions or to realise its objectives. The researcher adopted quantitative methods, which were also used to collect data. A questionnaire was used as data collection instruments. The study further used two sampling methods. To arrive at the sampling frame of the study, the systematic sampling method was used, while data was collected using accidental sampling. For validity and reliability purposes, a pre-test was conducted and the data collection procedures SPSS version 21 was be used for analysing the data.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1.   INTRODUCTION

The previous chapter discussed structural and fundamental methodological components relevant to the present study. The current chapter presents analysis and interpreted data that was collected for this study in the previous chapter. All the data was accessed from research questionnaires that were distributed with the intention of investigating the utilisation of electronic databases by postgraduate students or students in the Faculty of Humanities at UL. The chapter begins by discussing the framework that was used to analyse and interpret the data before describing the characteristics of the research participants and the whole results of the study. This is then followed by an analysis of the results obtained from the participants, aimed to investigate the utilisation of electronic databases by postgraduate students doing master's and doctoral degrees in the Faculty of Humanities at the UL library. The subsequent sections focus on association, frequency counts and the standard deviation and are intended to test the existence of the relationships between each of the factors and demographical information. Most of the results in the current chapter are presented either through a tabular arrangement or in the form of bar graphs, interpreted descriptively by looking at the findings of previous studies.

4.2.   RESPONSE RATE

As stated in the previous chapter, self-administered questionnaires were distributed to master's and doctoral students in the Faculty of Humanities, University of Limpopo. The researcher distributed 150 questionnaires to the students, both master's and doctoral students. Out of these questionnaires, 125 were returned. This constitutes 83.9% response rate. This is in accordance with Owen and Jones (1994) and Lewis and Thornhill (2000:158), who suggest that a response rate in surveys could be as low as 40%, and a response rate of approximately 30% is reasonable for a researcher to analyse and draw conclusions. Therefore, the response rate of

83.9% was a good response rate, and allows the researcher an avenue to make generalisations about the total population.

4.3.   STATISTICAL ANALYSIS

The researcher was assisted by a university statistician who is an expert in quantitative research. The expert provided assistance in various areas of the study. First, the statistician provided guidance on the applicable research design as well as the design and construction of the data collection instrument. When the data was ready for analysis, the statistician provided guidance in choosing the most appropriate data analysis methods as well as how to use the SPSS software to analyse the data. Furthermore, the statistician assisted by double-checking to see whether the interpretations done by the researcher were accurate. After the questionnaires were returned, they were screened to eliminate those that were incomplete as well as those in which the same question was answered throughout, which indicated that some of the respondents had not read the questions. This procedure was immediately followed by the capturing of the data on a Microsoft Excel computer package. The Excel document was then imported into the IBM SPSS Statistics Version 25 where it was coded in preparation for data analysis. The data analysis involved several rigorous statistical tests such as reliability tests, correlation analysis, regression analysis and mean score ranking. A comprehensive diagrammatic representation of the research path adopted for data analysis in the current study is also made in the next section.

4.3.1. Descriptive statistics

Descriptive statistics are techniques that help to state the characteristics or appearance of sample data (Zikmund, Fisher & Trevena, 2013: 54). Frequency tables and the mean score ranking technique are the major descriptive statistics employed in this study.

4.3.2. Frequency distributions

Frequency distributions such as tables, graphs, pie charts and bar graphs were utilised to display research findings. Frequency distributions are used to depict absolute and relative magnitudes, differences, proportions and trends (Zikmund et al., 2013). These methods use both horizontal and vertical bars to examine different elements of a given variable (Malhotra & Dash, 2011: 84). The use of frequency distributions facilitated the assessment of gender, age of the founder or managing member, education, number of employees etc.

4.4. DEMOGRAPHICAL PROFILE OF RESPONDENTS

Section A of the questionnaire elicited information pertaining to the demographic characteristics of respondents. The section addressed the following attributes pertaining to the respondents:

- Degree registered
- School enrolled with
- Gender and age

4.4.1 Degree registered

The first question that was asked the respondents was about the postgraduate qualification or level in which they are registered. This question was posed so that the researcher should know the number of respondents at master's and at PhD levels. At master's level, there are those who have registered for full time research, and those who have registered for master's by coursework. Master's full time research is when a candidate registers research which involves a thesis or dissertation component at the end of the qualification. On the other hand, master's course work is when the candidate attends classes and research that covers a specific topic in the form of modules, and a mini-dissertation or research report at the end of the programme. Fig 4.1 (below) depicts degrees that were registered by the study participants.
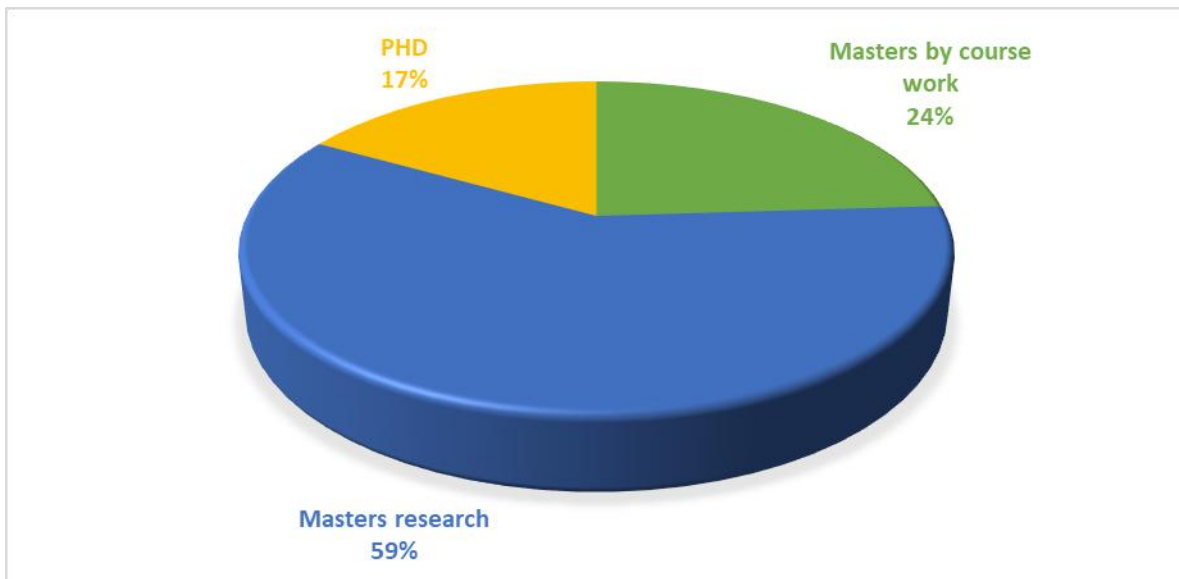
Figure 4.1.: Degree registered (n=125)

Figure 4.1 above indicates that out of 125 respondents, 59% have registered for master's by research, while 24% have registered for master's by course work and 17% have registered for PHDs. The fact that the majority of participants had registered for master's research demonstrates that the majority of the study participants have enrolled for master's research. There are few doctoral and master's by coursework students.

4.4.2. Schools to which the respondents are attached

This study focused on the use of electronic databases by master's and doctoral students at the University of Limpopo, Faculty of Humanities. The faculty comprises three schools, namely, Education, Social Sciences and Languages and Communication Studies. This study investigated postgraduate students who have registered for master's and PhD qualification in these schools. Figure 4.2 depicts the schools in which the respondents were registered.

	School of Languages and Communication studies	School of Education	School of Social Sciences
▨ Frequency	35	57	33
▨ Percent	28	45,6	26,4
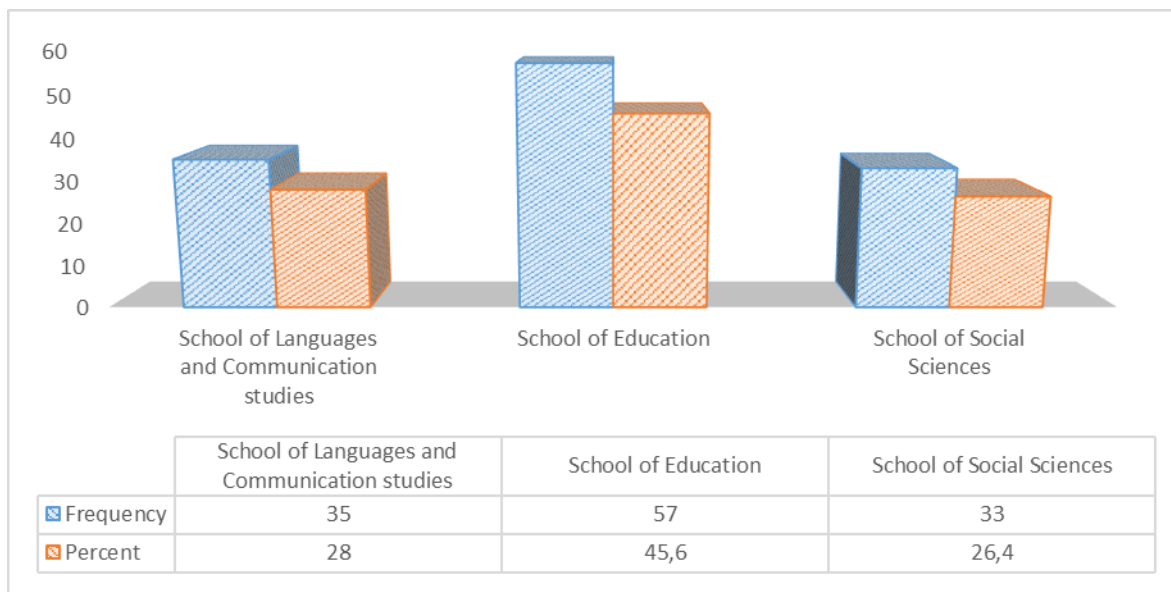
Figure 4.2: Schools to which the respondents are attached (N=125)

Figure 4.2 above shows that fifty-seven (46%) respondents come from the School of Education, followed by thirty-five (28%) from the School of Languages and Communication Studies and then thirty-three (26%) respondents who come from the School of Social Sciences. The School of Education had more respondents' despite being the second largest school in the Faculty of Humanities, while the school with the highest number of postgraduate students, that is, the School of Languages and Communication Studies came second. This is followed by the School of Social Sciences which has the lowest number of postgraduate students.

4.4.3. Respondents' gender and age

Gender and age are regarded as variables or factors that may also have an influence on the behaviour of people towards a particular phenomenon. In this study, these are also included because they may also have influence on postgraduate students' access and use of the internet to access electronic or online databases. For instance, a paper by Akman and Mishra (2010) "reviews and discusses internet issues and reports the findings of a survey concerning the impact of gender and age on employees' internet usage in Turkey". In this research, "Internet usage was categorised in two empirical factors, namely, usage profile, that is, reason for using

the internet, average daily use of the internet and usage patterns, that is, average daily use of the internet for communication or e-mailing or chat, information access or downloading or entertainment and electronic services" (Akman & Mishra, 2010). "The survey was conducted among two-hundred (200) employees from public and private sector organisations. The results indicated that gender has a positive impact on average daily time spent on the use of the internet for communication or e-mailing or chat and information access or downloading/entertainment. Age has a positive impact on average daily use of the internet in general and a negative impact on the use of the internet for information access or downloading or entertainment. Finally, gender and age and income do not have any significant impact on average daily use of internet for electronic services such as e-commerce or e-shopping or e-banking or e-government" (Akman & Mishra, 2010: 482). Frequencies and percentages pertaining to the respondents' gender are illustrated in Figure 4.3 below.
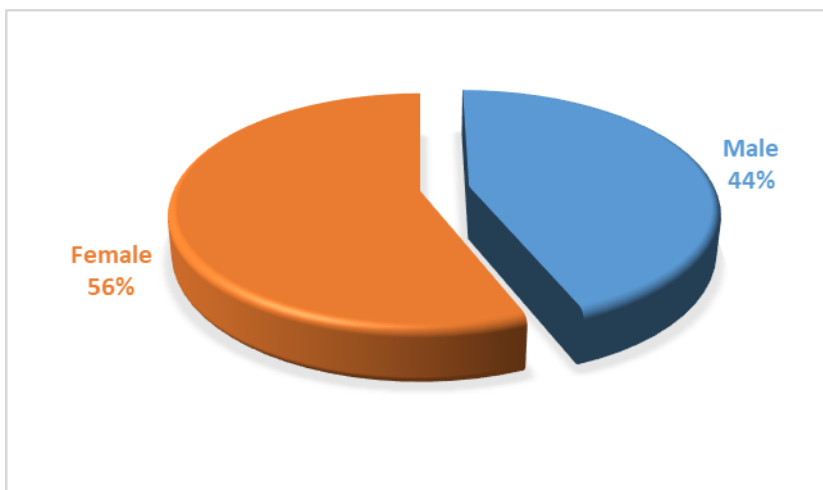
Figure 4.3: Percentages of respondents' gender (n=125)

The gender distribution of the respondents shows that a greater proportion of 56% of respondents were female and 44% were male. According to the chart, the highest percentage of respondents was female.

With respect to age, Figure 4.4 below shows that the majority, that is, forty-two (34%) of the respondents were aged between 31 and 35 years; sixteen (13%) were aged between 20 and 25 years; twenty-four (19%) were aged between 26 and 30

years; twenty-eight (22%) were aged between 36 and 40 years and finally fifteen were (13%) aged more than 40 years.
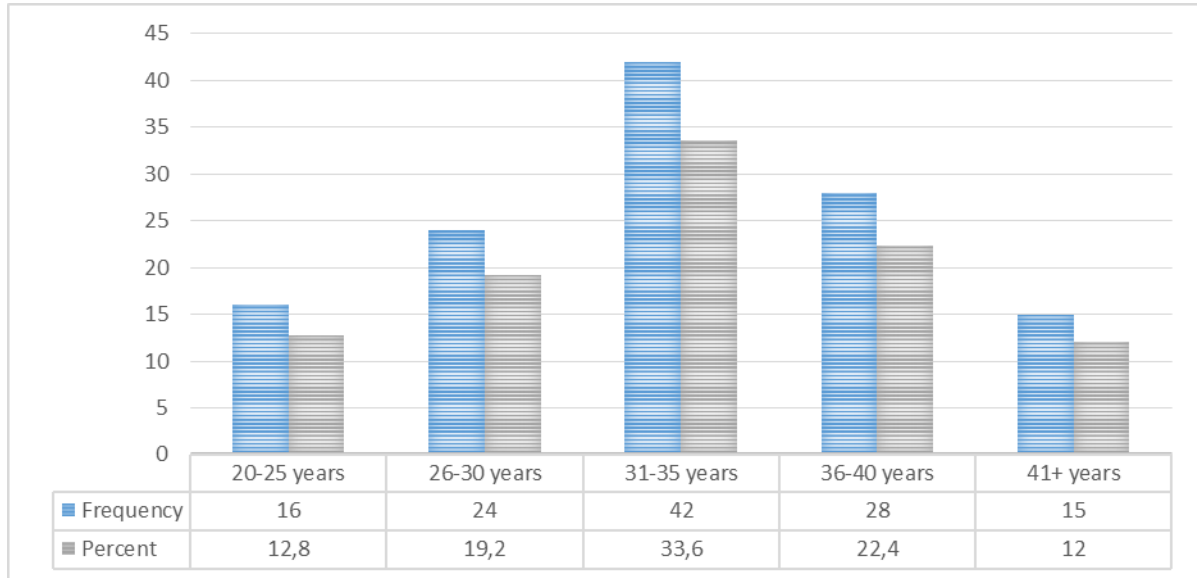
Figure 4.4: Percentages of age groups of respondents (n=125)

This study shows that although those whose age group ranges from thirty-one (31) to thirty-five (35) are in the majority, there is no considerable age gap between the participants. Le Roux (2018) shows that working postgraduate students have become a growing trend in the higher education sector. Wakeling and Laurison (2017) investigated the connection between social origin, postgraduate degree fulfilment, and occupational effects across five British age-group cohorts. The study used a recent UK Labour Force Survey data to conduct a series of logistic regressions of postgraduate (master's or doctorate) degree attainment among those with first degrees, with controls for measures of degree classification, degree subject, age, gender, ethnicity and national origin. It was found that there is a marked strengthening of the effect of class origin on degree- and occupational attainment across age cohorts.

"While for older generations there is little or no difference by class origin in the rates at which first-degree graduates attain postgraduate degrees, those with working-class-origins in the youngest age-group are only about 28 per cent as

likely to obtain a postgraduate degree when compared with their peers from privileged origins. Moreover, social origin matters more for occupational destination, even among those with postgraduate degrees, for those in younger age groups" (Wakeling & Laurison, 2017: 533).

4.5.   ACCESSIBLITY AND AWARENESS OF ELECTRONIC DATABASES

4.5.1. Computer and internet access

In order to find out if the respondents had access to the library databases, the first question that was asked was whether they had access to a computer or not, followed by where they get access to the computer if they had such access. The results are depicted in Figure 4.5 below. The majority of the respondents, that is, hundred and twenty-three (98.4%) showed that they had access to a computer, while only 2% did not have access to computers. This high percentage of students who have access to computers shows that students nowadays own laptops. In fact, the research department encourages postgraduates to have their own computer facilities.
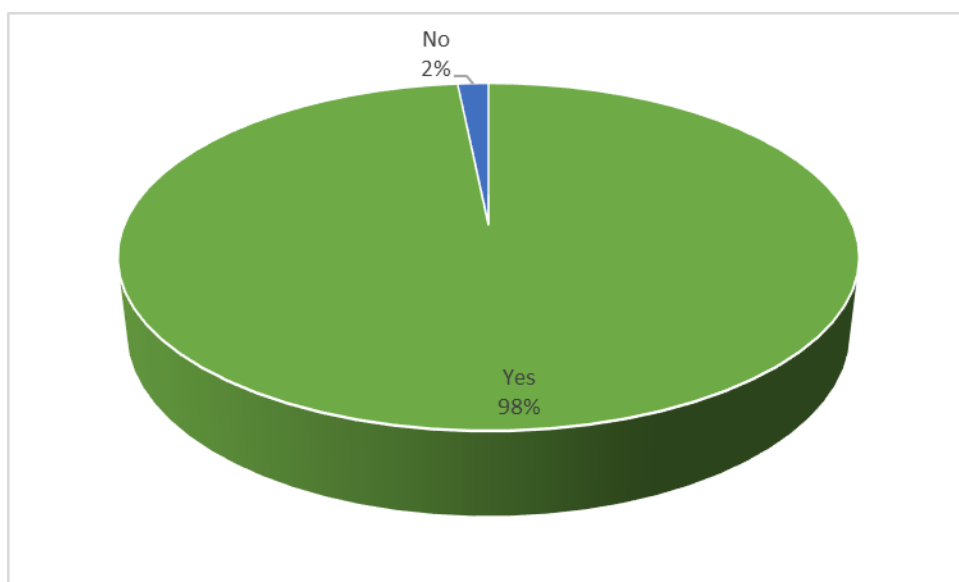
Figure 4. 5: Do you have computer (n=125)

This shows that the digital divide or gap that used to be a cause for concern is gradually closing. The topic of the "digital divide concerns unequal access to and usage of new technologies" (Fuchs & Horak, 2008: 99). This is contrary to what Tshiskhawe (2008) maintains that the majority of South African students do not have access to personal computers and the internet, and further that access to internet connections, computer laboratories and printers is limited. Ajuwon (2003) "carried out a study on the uptake of ICTs by health science students at the University College Hospital, Ibadan. This study found that 57% of students sampled could not use a computer, that the use of the database was poor due to lack of awareness, lack of access to computers, insufficient training and the high cost of provision".

The respondents were asked a follow-up question about where they get access to computers. There is a clear indication that the majority of respondents have access to computers at computer labs and the library, while others had their own personal computers. Out of the one hundred and twenty-three (98%) students who showed to have access to computers, 98% access the computer at computer laboratories and the library, while others owned a personal computer (laptop). Only two (2%) respondents did not have access to a computer. Another reason is that the university has many computers in their labs for students. Another reason is that the library has computer labs that cater for postgraduate students only. Some postgraduate students are university employees and have computers in their offices. Others are working and have their own laptops. Historically, the library had few computers for students to access online databases, but currently there has been improvement with accessibility.

The university library has more than 200 computers in three (3) labs where students can access the internet and electronic databases. "Now it is possible for everyone to access UL Library databases anywhere on the LAN. University library remains the location in which 74% of the respondents' access electronic resources. This could be because the library has dedicated computers for access to available databases. It is also convenient for users who need to borrow items from the library. The IT Department oversees student LANs, where students are able to access these library resources for their studies. University computer laboratories have more than 2000

computers for students with internet accessibility. Postgraduate rooms were used by a substantial number of students" (UL Library report 2017).

With the expansion of Information and Communications Technologies for teaching, learning, research sharing of educational resources in higher education institutions in South Africa, access to the internet has become vital for students' success. Without access, they are excluded from learning, research and employment opportunities. Therefore, as a follow-up question to those who have access to computers, the next question was to ask them if they had access to the internet. This question was important because respondents could easily access electronic journals if they have access to the internet. The respondents were to choose between Yes and No in answering this question. The results are depicted in Figure 4.5 below.
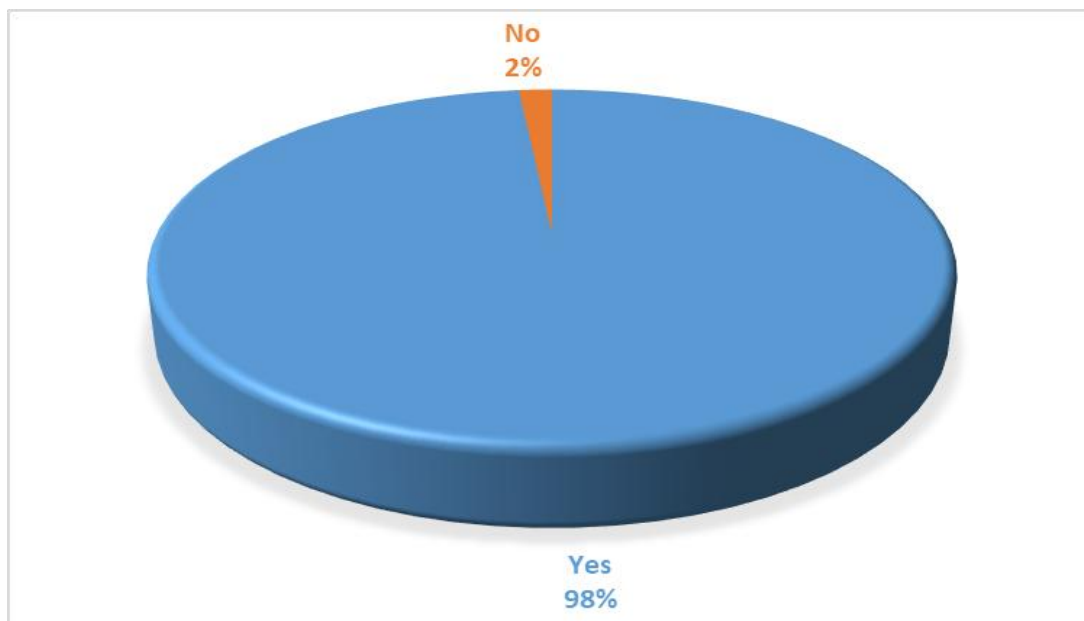
Figure 4.6: Do you have access to the internet? (n=125)

The results revealed that one hundred and twenty-three (98%) say they have access to the internet. Two (2%) respondents indicated that they don't have access to the internet. This is in line with the report of the World Wide Worx (2017), that "the South African internet user population passed the 20 –million mark in 2016, reaching 21 – million and is expected to grow to at least 22.5 million in 2017, and further that every second adult South African citizen is connected to the internet, because internet

access is becoming synonymous with economic access". However, the survey conducted in ten (10) South African universities by Oyedemi (2012) "reveals that beyond publicly available access on campuses – personal or household internet access is a challenge, and reflects a pattern of inequalities in South Africa". Many academic institutions are rapidly adopting information and communication technology (ICTs), including the internet infrastructure. The University of Limpopo spends much money to make the internet accessible to their community. In support of this statement, the university provided WI-FI connection to various places. For example, in university buildings, at the student residents where they stay, computer laboratories and the library have access to a Wi-Fi network. This Wi-Fi helps postgraduate students to access the internet at any time. This therefore calls for the question about where postgraduate students access the internet.

4.5.2. Places of access to computers and the internet

In order to confirm the results below, the respondents were further asked about places where they access the internet. The question was a closed-ended one whereby respondents were provided with responses such as at the office, at home, at the computer lab, on computers in the library, or through cell phones. The follow-up question asked the respondents where they get access to computers. There is a clear indication that majority of respondents have access to computers in computer labs and the library, while others had personal computers.

Sixty-eight (54%) respondents indicated others; others represent all those respondents who chose more than two options. These questions have multiple answers. They chose more than one answer, indicating that they access the internet at home, computer labs, the library, in offices and smart phones or in their rooms.

This shows that majority of respondents used more than one device. They search databases in different places. Library labs and computer labs came with a high number of respondents. Eighteen (14, 4) respondents indicated that they access the internet at computer labs and offices. On this question, the respondents were asked to choose more than one answer. The majority of students showed that they access and use the internet at home, in the office or

in the library. This might be because in some institutions, there are practices such as laboratory operating hours, time limits and booking systems for computer use (Tshisikhwawe, 2008: 59).

	Frequency	Percent
At the office	18	14,4
At Home	7	5,6
Computer laboratory (on campus)r	18	14,4
Computers in library	9	7,2
Cell phone (Smart phone)	5	4
Others	68	54,4
Total	125	100

Table 4.1: Where and how do you access the Internet for research (n=125)?

Therefore, some users may not want to be inconvenienced when the library or computer labs close. Okon (2010b) investigated "the extent and level of internet access and use by undergraduate students in three Nigerian universities as well as electronic resources used by these students on the internet. The findings of the study reveal that there is inequitable access to the internet, as students mostly rely on private/commercial internet cybercafés – both on and off-campuses – for their access and use. Access to the internet in university libraries, departments/faculties and university computer/ICT centres is grossly poor due to lack of poor internet infrastructure and connectivity and non-sustainable internet services in these universities" (Okon, 2010b).

The findings of studies by Ngulube, Shezi and Leach (2009), Talja and Maula (2003) and Oyadonghan and Eke (2011) "on internet use among the students bear similarities with those of the current study, especially with regard to problems encountered by the respondents when using the internet. The respondents had limited access to the internet laboratory due to its physical location, limited hours of operation and inadequate points of use. All these factors on access hindered students' effective use of, and access to, internet services". A study by Fasae and Aladeniyi (2012) "revealed where the internet is mostly accessed by science students. Ninety-nine percent of the respondents accessed the internet at cybercafés outside their campus, and only 19% access the internet at the university library." Geyer et al. (2017) found that "online activities for students occur mostly on campus

and at home during the early evenings via mobile phones or laptops". This is contrary to findings in survey by Hanauer, Dibble, Fortin and Col (2014), which showed that "83% Internet users had access to the Internet at their home. More than 80% had home Internet access". The choice of using internet facilities located outside campus may be that they are more functional and reliable compared with those located on campus and at home. Emmanouilides and Hammond (2000) wrote that "the factors that predict internet usage patterns are explored through the use of consumer panel data". They found the following main predictors of active or current use of the internet:

- "Time since first use of the internet. Pioneers (very early adopters) are most likely to be active users. However, the relationship is not a linear one; middle adopters are more likely than other groups to have *not* used the internet in the previous month.
- Location of use. Social use at home, especially with two or more other people.
- Specific services used. Personal communication is the most popular activity (used by just over half the sample), but the best predictors of active users are use of information services" (Emmanouilides & Hammond, 2000).

4.5.3. Frequency of accessing the internet.

This question asked the respondents about how frequently they use the internet for research purpose. The data was collected and analysed as presented in the Figure 4.7 below.
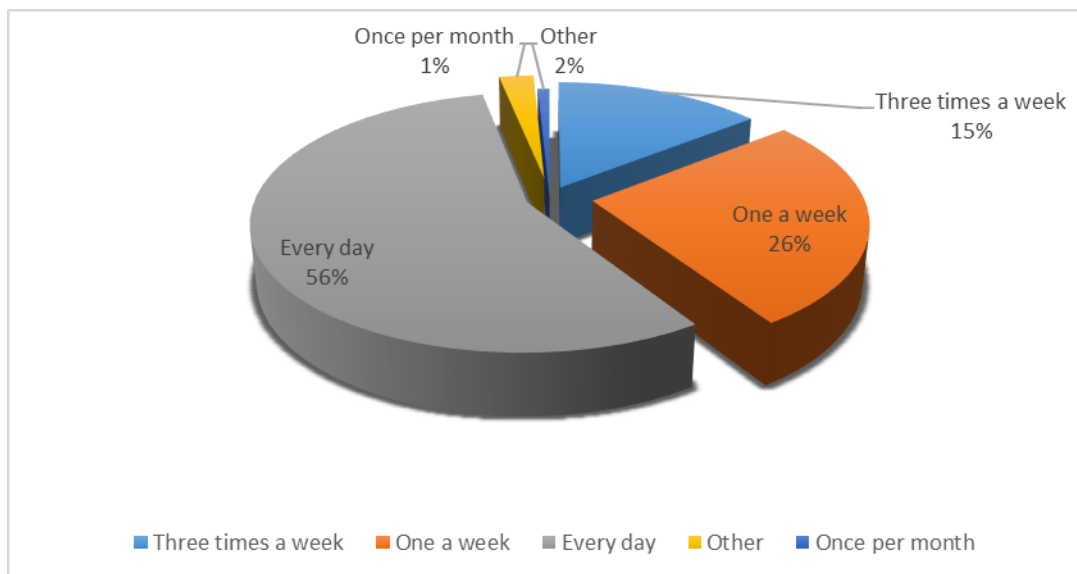
Figure 4.7: Frequency of accessing the internet for research purpose (n=125)

With respect to the statement: how often do you access the internet for research purpose? Figure 4.7 shows that seventy-six (56%) respondents indicated that they access the internet every day, thirty-three (26.4 %) once a week, and there were eighteen (15%) respondents who indicated that they access the internet three times a week. One (1%) may be either once in month or once in a while. This shows that the internet has become part of our everyday lives. Without the internet, one will not be able to interact with other people in the world. If the entire group of postgraduate students use the internet to access EIR for academic research, it is, therefore, also helpful to determine how often they use these resources.

"A survey conducted on emerging patterns and trends in utilising electronic resources in a higher education environment in Australia shows that electronic resources are used very frequently, with more than 59% of the respondents able to access them more than once a week" (Deng, 2010). To assess the internet use, abuse and dependence, Beverly, Joseph, Yi-Chuen Chen, Judith and Kevin (2007) "investigated four hundred and eleven (411) undergraduate students at Southeastern Regional University, and found that ninety percent of participants reported daily internet use". This shows that students make use of the internet in their daily lives. "Studies on internet usage among university students are desirable as students

are heavy internet users (compared to the general population), and using the internet is a matter of daily routine for them" (Jones & Madden, 2002).

Prabhavathi (2011) on information seeking behaviour of postgraduate students of Sri Padmavathi Mahila Visvavidyalayam, Tirupati confirms that "the internet is used mainly for research purposes (43%) rather than for communication (18%) or downloading programmes (18%). However, the other purpose for using the internet by the respondents was professional development (11%), entertainment (3%) and chatting (1%)". Therefore, it is not surprising to see that 100% of our respondents use the internet to gain access to EIR for research. Tella, Owolabi and Attama (2009) observe that "it is no longer surprising that, in this digital age, many libraries in tertiary institutions are connected to the internet or have plans to get connected soon. Academic libraries are increasingly taking advantage of Information and Communication Technologies (ICTs) to provide improved access to EIR to their users".

In order to determine to the extent to which postgraduate students use the electronic databases for academic research, they were asked about the purpose for which they use the internet. All respondents indicated "yes" for accessing databases and for e-mail purposes, and 119 (79%) respondents indicated "yes" for social networking. This means that all respondents use the internet for research and for communication purposes. It is very encouraging to note that all respondents use the internet to access databases and e-mails. Golwal, Sonwane and Vaishnav (2008) observe that "electronic resources have become the most popular tools for research and academic activities".

4.5.4. Awareness of availability of electronic databases

This was the first question in section two of the questionnaire. The information in this section deals with awareness and use of library electronic databases. Respondents were asked to what extent they are aware of the availability of electronic journals for humanities in the library. They were asked to respond using the following scale: 1 =

to no extent at all; 2 = to no extent; 3 = to some extent; 4= to a large extent; 5 = to a very large extent.

	To no extent at all	To no extent	To some extent	To a large extent	To a very large extent
Frequency	1	7	22	47	48
Percent	0,8	5,6	17,6	37,6	38,4
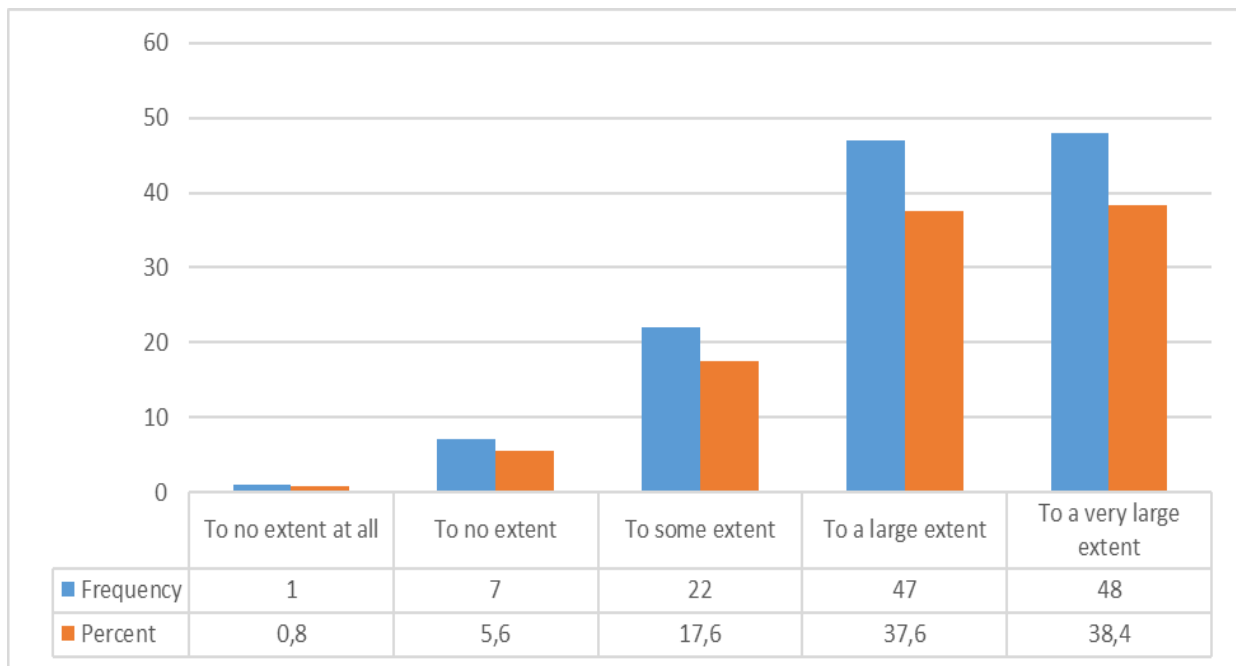
Figure 4.8: Awareness of the availability of electronic journals (n=125

The results in Figure 4.8 above show that forty-eight (38, 4%) postgraduate students indicated "to a very large extent" and forty-seven (37, 6%) responded "to a large extent" while twenty- two (17, 6) "to some extent". Only less than eight (6%) are not conscious of the obtainability of electronic journals in the library. This question was asked in order to determine the level of understanding of electronic journals because a user who does not know anything about electronic journals may not be in a position to know about their availability or non-availability. However, the fact that users could be aware of the availability of electronic journals or other services but still does not use them for certain reasons could not be underrated (Mawere, 2018). Callinan (2005) remarks that "lack of awareness was the primary reason why students did not use the library's electronic databases. In order to verify this assertion, a question was formulated to ask the participants if they are aware of the availability of electronic journals the humanities field in the library".

In the same vein, in a study carried out by Ali (2005) highlighting "the use of electronic information services (EIS) among users of Indian Institute of Technology (IIT) library in New Delhi, India, data were collected from three hundred IIT library users. The results revealed that 95% of users were aware of EIS provided by the library". In a study conducted by Kindilchie and Samarraie (2008), "when asked about e-resource use, faculty members responded that lack of familiarity with e-resources was the lowest-ranked problem". Similarly, a study by Dolo-Ndlwana (2013) "on the use and value of library's electronic resources by academic and postgraduate students at Cape Peninsula University of Technology found that the majority of the respondents used electronic resources, but a few respondents did not use e-resources because they were not aware of them".

4.5.5. Sources of awareness of electronic databases

As a follow-up question, the respondents were also asked how they became aware of the databases.
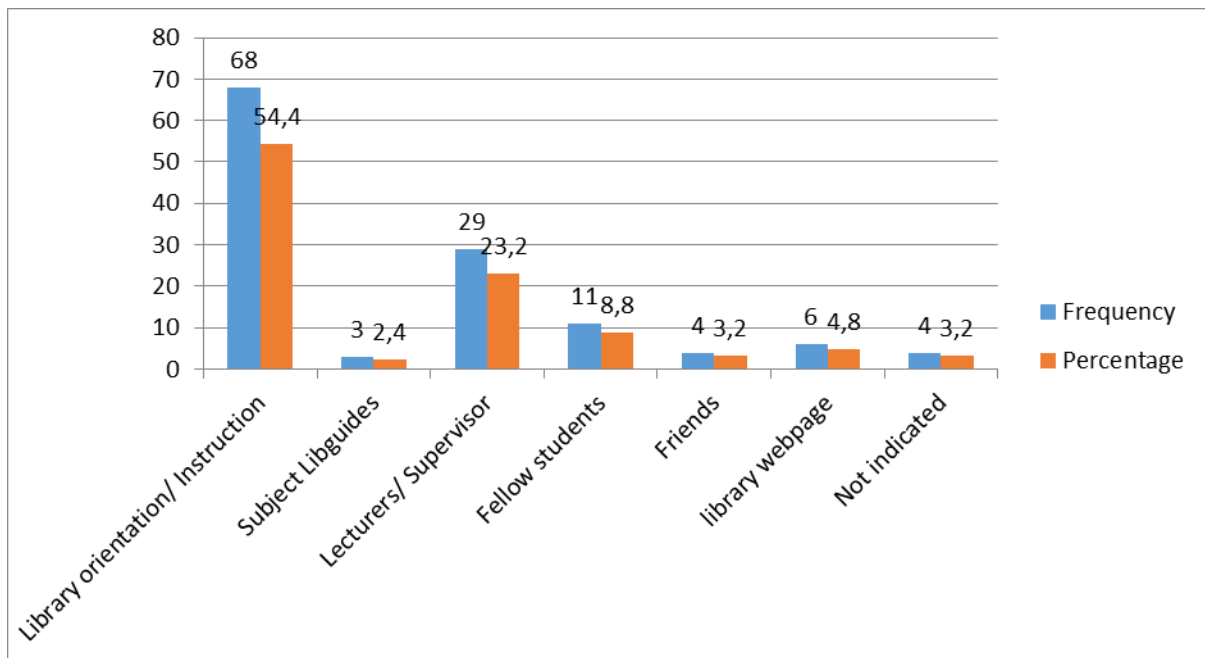
Figure 4.9: Source of access to the internet

Figure 4.9 shows that out of 125 respondents who answered this question, library orientation/ instruction was the main source of awareness with sixty- eight (54.4 %) of the respondents. Lecturers/ supervisors were the second source of awareness with twenty-nine (23, 2%) respondents. Eleven (8.8%) respondents found out about library databases from their fellow students, three found out from the Subject Libguides and six (4.8%) from library webpage provided by the library. Library orientation/ instruction and lecturers/supervisors were mentioned by ninety-eight (77.6%) of the respondents. Library instruction is an effective means of enlightening library users and of building awareness of available information resources in the library (Omeluzor, Akibu Dika & Ukangwa, 2017). Therefore, feasible approaches and facilities "as ask a librarian", library Blog, library website, social media, text messaging, emailing and radio broadcasting should be explored as media that can be used for teaching library users about library resources and services. This is well supported by Bamidele (2015), who states that "without constant and deliberate reading habit, achieving academic excellence would be a mirage". Library users are expected to utilise different library information resources that are available in the library for their various courses to achieve academic excellence. According to Madukoma, Onuoha, Omeluzor and Ogbuiyi (2013), "library instruction was introduced in academic institutions to ensure that students have the intellectual ability and skill to access and retrieve information and to construct a framework for learning".

Omeluzor et al (2017) "investigated library instruction methods, effects and challenges in academic libraries using the Federal University of Petroleum Resources Effurun (FUPRE) students as the target population. Library instruction is a core activity of academic libraries that entails educating, enlightening, guiding and helping library users to identify, understand and utilise library information resources effectively". The finding showed that "classroom teaching, library orientation and library guide (x = 3.00, sd = 000) were the methods mostly used while guided library tour (x = 2.53, sd = 667), library and one-on-one mentoring (x = 2.48, sd = 716) were also used to instruct the library users". It also reveals that "Ask a librarian, Frequently Asked Questions (FAQ), library Blog, library Website, Text messaging were not used to instruct users". The finding also shows that "library instruction was effective for identification of books on the shelves (x = 3.78, sd = 416), access and retrieval of

information materials in the library (x = 3.67, sd = 471), enable students to cite and reference books with ease (x = 3.11, sd = 874) and turned users into regular library users (x = 3.45, sd = 497). it however, shows that library instruction has no effect on students' academic excellence (x = 3.44, sd = 687)". The results also show that academic staff or supervisors are the ones who provide information to postgraduate students about electronic databases to look for information from. This is contrary to Carr and Rockman (2003), who lament the fact that "academics provide limited feedback to students about resources that they use themselves to access information.

Egberongbe (2011) "revealed that the majority of lecturers preferred to use e-resources in comparison to traditional resources. Seventy-seven (66%) of them consider e-resources as time-saving, 70(59.1%) considered it easy to use, whereas fifty-two (46.5%) considered it more useful. Twenty-two (28.5%) research scholars preferred to use e-resources because they were more useful and time saving, twenty-eight (40%) of research scholars preferred to use e-resources because they are easy to use. Twenty (28.6%) use them because they are time saving and twenty (28.65) use them because they are more informative. Thirty-six (52.35%) use e-resources because they are more useful and twenty-four (34.25%) scholars use them because they are less expensive. The results revealed that e-resources were preferred by respondents because they were more useful, time saving, easy to use, more informative and less expensive. Table 4 revealed that 73 (65.2%) lecturers and 46 (65.7%) scholars usually used e-resources, 30(26.8%) lecturers and 20(28.65%) scholars used e-resources sometimes, whereas 9(8.04%) lecturers and 4(5.75%) scholars used them rarely. The study indicated that scholars used the library more frequently than lecturers".

 A study by Kwadzo (2015) "examined the awareness level and usage of electronic databases by graduate students at the University of Ghana. The focus was on graduate students in the Departments of Geography and Development Resource, and Information Studies. The findings revealed that students were aware of the databases available to them. This is indicated by 96.9%, and 93.8% indicated that they use them. The study also established that the majority of students knew about the databases from their lecturers". Furthermore, the limited number of databases

that they knew about, they were satisfied with them. They claimed that the databases have impacted on their learning and research activities. In light of these findings, it is recommended that librarians, especially subject librarians, should heighten the publicity of the databases and research guides to both students and faculty so that they would become familiar with them (databases) in order to use them more effectively. Contrary to these findings, one of the findings of the study by Aina (2014) was that information awareness on electronic resources among lecturers was inadequate. This affects the accessibility and use of electronic resources.

The study, therefore, concluded that library instruction is an effective means of educating users and of creating awareness of the availability of information resources in the library. Librarians should ensure that library instructions impact students' academic excellence while viable methods of engaging and instructing users make them effective users, and life-long learners should be encouraged and explored.

4.6. USAGE OF ELECTRONIC DATABASES

4.6.1. Frequency of using online databases

This question required respondents to indicate how often they used the library's online databases. This research question aimed at searching further in finding out about the type of journals that the scholarly community depends on. This list consisted of databases which specifically had content coverage for the humanities, social sciences and education. The respondents were asked how frequently they use each of the following online databases. Please use the following scale: 1=Never, 2= Seldom, 3=Sometimes. 4=Often, 5= Always. Table 4.2 shows a list of online databases from those mostly used to those least used. Most respondents only marked the databases they had used. The most frequently used databases in their order of usage were: Google scholar with ninety (72%) respondents, Google with fifty-three (42%), Science Direct with fifty-nine (47%), SA E publication with fifty-eight (46%), SA theses and dissertations with forty-seven (38%), Ebschost with forty-five (36%), Springer link and RefWork with sixteen (13%) respondents who always use these databases every time.

The least used electronic databases were EbscoHost discovery services, Sage, ProQuest & SA tenders with nine (7%), Swetswise with six (5%), Sabinet legal products five (4%) and Oxford Reference Online. Ebrary had one (1%) user. This is indicated in Figure 6 above.

Item No.	Name of database	Never	Seldom	Sometimes	Often	Always	Not indicated	Total
B10.1	Ebrary	38%	15%	27%	11%	1%	8%	100%
B10.2	Ebscohost Discovery Services	21%	22%	27%	14%	7%	8%	100%
B10.3	EbscoHost	13%	10%	12%	22%	36%	6%	100%
B10.4	Emerald Insight	18%	31%	22%	10%	11%	7%	100%
B10.5	Google	10%	5%	14%	22%	42%	6%	100%
B10.6	Google scholar	5%	5%	8%	8%	72%	2%	100%
B10.7	ISI Web of Knowledge	62%	10%	10%	2%	4%	11%	100%
B10.8	JSTOR	21%	29%	29%	8%	7%	6%	100%
B10.9	ProQuest	27%	35%	22%	6%	3%	7%	100%
B10.10	Oxford Reference Online	50%	27%	6%	6%	3%	7%	100%
B10.11	ProQuest	26%	34%	19%	7%	7%	6%	100%
B10.12	Refworks	24%	29%	15%	12%	14%	6%	100%
B10.13	SA e-Publications (SABINET)	13%	10%	10%	13%	46%	8%	100%
B10.14	Sabinet Legal Product	62%	14%	4%	8%	4%	9%	100%
B10.15	Sage	38%	33%	7%	9%	7%	6%	100%
B10.16	SA Tenders	64%	11%	6%	5%	7%	6%	100%
B10.17	SA Theses and dissertations	22%	11%	7%	16%	38%	6%	100%
B10.18	Springer link	26%	22%	22%	9%	13%	8%	100%
B10.19	Science Direct	25%	6%	5%	12%	47%	6%	100%
B10.20	Swetswise	75%	9%	3%	2%	5%	6%	100%
B10.21	World Cat Local (SABINET)	74%	10%	5%	4%	2%	6%	100%

Table 4.2.: How frequently do you use each of the following online databases? (n=125)

These findings show that the majority of postgraduate students at the University of Limpopo in the Faculty of Humanities depend on Google Scholar more than databases that the library provides. Tella, Oyewole and Tella (2017) agreed with this finding by indicating "that Google Scholar was considered useful because it covers broad topics in the area of interest and usually provides relevant articles related to the respondents' search done through this platform".

In support of these findings, Shen (2012) conducted a study on the frequency of graduate students' usage of Google Scholar and the contributing factors to its adoption. The findings demonstrated that "45% of those who had used Google Scholar indicated its linkage to full text articles via the customised library link. On average, the respondents found Google Scholar easy to use (M = 4.09 out of 5) and access (M = 3.86). Respondents also perceived Google Scholar as a useful resource for research because it enhanced their search effectiveness. On the other hand, respondents were not emphatic about whether or not they always found what they are searching for using Google Scholar or whether or not enough resources are available on it for their research. Nonetheless, most of the respondents were still convinced that they made the right choice to use Google Scholar (M = 3.94)".

The results additionally exposed numerous influences that strongly affect postgraduate students' intent to utilise Google Scholar. These are "perceived usefulness" of Google Scholar, sense of loyalty, and "perceived ease of use". In a study on Google Scholar citations, Kousha and Thelwall (2006) "indicated that there is a strong relationship between Google Scholar and ISI Web of Science for biology, computer science and physics journals".

The results demonstrate that the majority of respondents strongly agreed and agreed that they were aware of Google Scholar and usually used it. However, the respondents were not satisfied with Google Scholar as it does neither speed up their research nor make their research easier.

4.6.2. Factors influencing the use of electronic databases

Some factors that may influence the use of electronic databases were listed for the respondents to choose from. Likert four-point scaling was used, whereby 1 = strongly disagree; 2 = Disagree; 3 = Agree; 4 = Strongly Agree.

No. it Ems	Influence	Strongly disagree	Disagree	Agree	Strongly agree	Not indicate	Total
C11.1	I use those that are relevant to my study / topic	16(13%)	5(4%)	24(19%)	80(64%)	0%	100%
C11.2	I use only databases that are convenient and easy to use	3(2%)	7(6%)	38(30%)	72(58%)	4(3%)	100%
C11.3	I use databases that can be accessed any time	4(3%)	11(9%)	33(26%)	74(59%)	3(2%)	100%
C11.4	I use only databases that can be accessed off-campus	19(15%)	25(20%)	30(24%)	44(35%)	7(6%)	100%
C11.5	I use those that have the ability to save, print and e-mail search results	10(8%)	8(6%)	28(22%)	73(58%)	4(5%)	100%
C11.6	I use those that have the ability to export to RefWorks	19(15%)	24(19%)	20(16%)	55(44%)	7(6%)	100%
C11.7	I use databases that I am familiar with	8(6%)	12(10%)	25(20%)	73(60%)	5(4%)	100%
C11.8	I use databases that are multidisciplinary in nature	7(6%)	13(10%)	29(23%)	72(58%)	4(3%)	100%
C11.9	I don't use databases to access information	77(62%)	17(14%)	5(4%)	21(17%)	5(4%)	100%

Table 4.3: Factors influencing the use of databases (n=125)

In Table 4.3, the findings show that out of hundred and twenty-five respondents, eighty (64%) strongly agree that they use databases that are relevant to their

study/topic. This is followed by seventy-three (60%) who use databases that they are familiar with, seventy-four (59%) use databases that can be accessed at any time, seventy-two (58%) strongly agree that they use databases that are multidisciplinary in nature and those that have the ability to save, print and e-mail search results. Fifty-five (44 %) respondents use databases that have the ability to export to RefWorks, while forty-four (35%) strongly agree that they use only databases that can be accessed off-campus or remotely. In Question 11.9, the respondents were asked if they use databases to access information or not. Twenty-one (17%) respondents strongly agree that they do not use databases to access information, while 62% agree that they use databases to access information. These findings reveal that postgraduate students depend on their databases for their research purposes.

This finding is supported by Welsh et al. (2001:28), who argue that there are a number of electronic journals that are used specifically to disseminate the best available research findings into practice. This ensures that students will obtain current research which will keep them informed in various disciplines. Tenopir (1999) notes that the choice of an online database from which to search for information is more likely made by a complex mix of factors revolving around such things as convenience, recommendations by librarians, visibility and availability for remote access. Kwadzo (2015) also shows that factors such as convenience, familiarity, exposure, infrastructure search skills, relevance and training influence the usage of electronic databases. In this study, in order to identify and measure factors that influence the choice and usage of electronic databases, as shown by Tenopir (1999) and Kwadzo (2015), these factors were listed for the respondents to indicate their degree of agreement or disagreement with the statements about those factors. When asked about e-resource use Kindilchie and Samarraie (2008) found that faculty members responded that lack of familiarity with e-resources was the lowest-ranked problem.

4.7. TRAINING ON THE USE OF ELECTRONIC DATABASES

4.7.1. Attendance of library training on e-databases

It was important to determine if the postgraduate students received any form of training on the use of electronic databases shown in Figure 4.10. Question 12 asked whether respondents had attended any library orientation or library instruction on how to use library resources. One hundred and five (84%) respondents indicated that they had attended training or orientation on the use of library resources while twenty (16%) had not attended. This indicates that the majority of postgraduate students know the importance of attending this training for e-resources. Thus the majority of the respondents had attended training or orientation on the use of library resources.
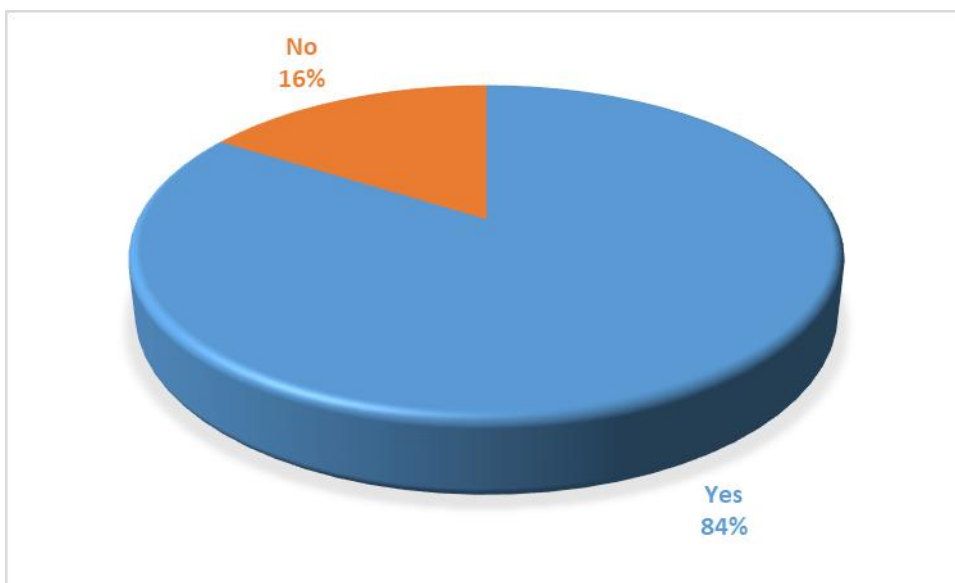
Figure 4.10: Attendance of library training or orientation (n=125)

Maduako (2013) "examined user education and library use in colleges of education in two states in Nigeria. The study revealed that there is a moderate positive relationship between user education and library use". Nweze (2011) noted "that library instruction aims to transmit knowledge and skills needed for proper exploitation and utilisation of knowledge as well as learning resources. The mandate of the academic library is to ensure that its resources are maximally utilised to equate with resources spent in acquiring them".

4.7.2. Period training attended

Question 13 was a follow-up question. The respondents were asked if the answer to question 12 is Yes, when did they attend that training on the use of library. The table depicts that forty (32 %) or the majority of the respondents indicated that they had attended training on the use of databases while they were still first-year students during orientation. Thirty-four (27, 2 %) had attended training just after registering their postgraduate degree (master's/PhD). Seventeen (13.6 %) respondents attended training when they were doing their final year, while twenty-four respondents say they have never attended any training on the use of databases.

	Frequency	Percentage
I have never attended any training on databases	24	19,2
When I was still a first-year students	40	32
When I was second year students	5	4
When I was a final year students	17	13,6
Just after registering my postgraduate degree	34	27,2
Other (please specify)	5	4
Total	125	100

Table 4.4. When did you attend Library orientation or Bibliographic Instruction?

This finding indicates that as librarians, we need to make it compulsory for all postgraduate students to attend training on the use of databases and library services. Library instruction in academic libraries is an important activity that engages academic librarians and library patrons. "It involves classroom teaching, users' guide, orientation, guided library tours and one-on-one guidance, which are peculiar to many academic libraries" (Esse, 2014; Ullah & Ameen, 2014).

4.7.3. Electronic databases training

Question 14 was an open-ended question. Respondents who had attended training on electronic databases were asked to list five of those databases that they were trained on. Out of 125 respondents who answered this question, fifty (40%) have been trained on Science Direct, ten (8%) on Sabinet, nine (7.2 %) on EbscoHost, followed by Google scholar, Jstor and ProQuest with 6.4% each. Less than 1%

indicated that they have been trained on Emerald, RefWorks, locating books and eBooks. Seven (13.6) respondents did not respond to the question. With these findings, it shows that the majority of respondents have been trained on Science Direct, Ebscohost and Sabinet. These resources allow students to access the required information for study and research. For example, postgraduate students can access and download full-text evidence-based articles on databases such as EbscoHost, Science Direct, Sabinet and JSTOR.

	Frequency	Percent
Not indicated	17	13.6
E learning	2	1.6
EBooks'	1	0.8
Ebrary	2	1.6
EbscoHost	9	7.2
Ebscohost discovery product	1	0.8
Emerald	1	0.8
Google scholar	8	6.4
Jstor	8	6.4
locating book	1	0.8
Oxford reference online	1	0.8
ProQuest	8	6.4
RefWorks	1	0.8
Sabinet	10	8
Sage	4	3.2
Science direct	50	40
World cat	1	0.8
Total	125	100

Table 4.5: Which databases were you trained on? (n=125)

Furthermore, findings reveal that students' lack of interest in library instruction programmes was a challenge. These findings show that seventeen (13, 6) respondents did not respond to this question. This means that they do not have knowledge or skills of searching databases or they do not have interest in this library instruction. These students depend on the subject librarian for information retrieval. This is in line with the finding by Maduako (2013), "that a major constraint with library instruction was students' lack of interest of it". Similarly, Aguolu and Aguolu (2002) established that "students' interest in library instruction as a factor for the success of

the programme in academic institutions and therefore that librarians should encourage students and adopt viable methods that will improve their interest in the programme". According to Welsh et al. (2001:28), there are a number of electronic journals that are used specifically to disseminate the best available research findings into practice. This ensures that students will obtain current research which will keep them informed in various disciplines.

4.8.   PROBLEMS AND CHALLENGES

4.8.1. Problems experienced in using electronic databases

In questions 15, the respondents were asked to indicate challenges that they experience when using electronic databases and the problems associated with their use. Attempts were made to know problems faced by users while accessing online databases. The data is presented in Figure 4.7, and depicts slow internet connection with ninety (73.6%) respondents, followed by password requirements and printing costs with sixty-four (51.2%) respondents, while forty-eight (38.4%) respondents indicated that lack of knowledge about relevant databases in their field and difficulty in searching also as a challenge. These results indicate that the majority of users in the university have challenges in accessing online journals. Slow internet connection, cost of bandwidth and little knowledge of internet facilities were among some of the major problems highlighted as challenges faced by Nigerian universities (Adetimirin, 2009).

	D15.1	D15.2	D15.3	D15.4	D15.5	D15.6
■ Strongly disagree	8,0%	5,6%	10,4%	13,6%	12,8%	4,8%
■ Disagree	12,0%	8,8%	16,8%	24,8%	12,8%	5,6%
■ Agree	35,2%	25,6%	26,4%	25,6%	16,8%	12,0%
■ Strongly agree	38,4%	51,2%	38,4%	29,6%	51,2%	73,6%
■ Not indicated	6,4%	8,8%	8,0%	6,4%	6,4%	4,0%
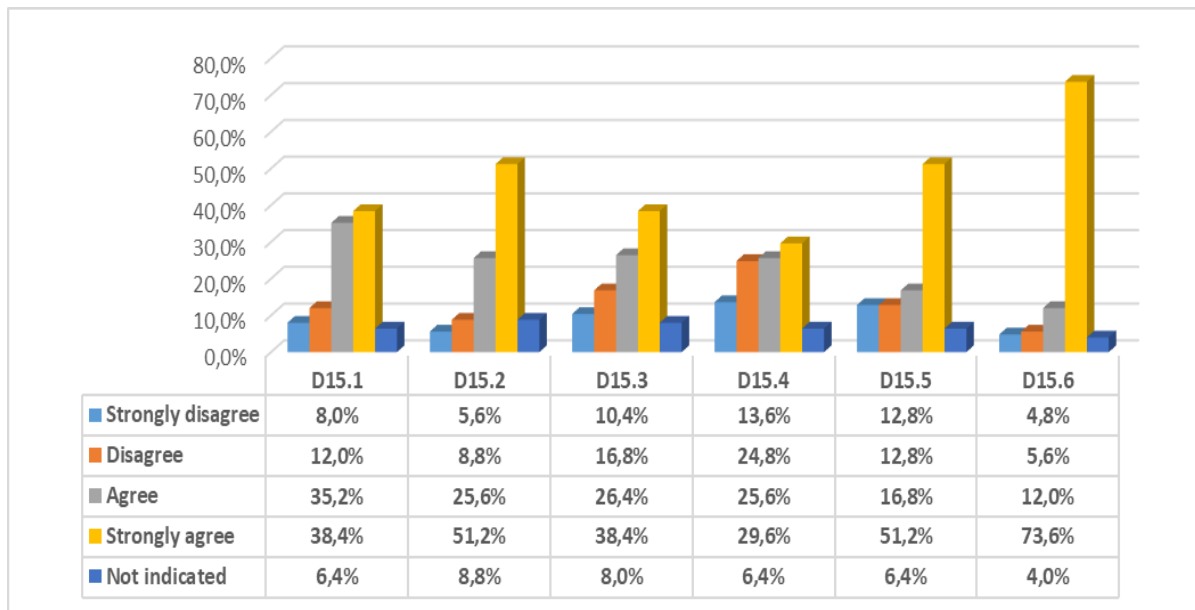
Figure 4.11: Problems experienced in using databases (n=125)

Idoniboye-Obu (2013) conducted a study on the "use of library resources by doctoral students in the University of KwaZulu-Natal, College of Humanities, Pietermaritzburg Campus and found that with electronic databases important journals and books were not available electronically, remote access was difficult because of passwords and logins, and some electronic databases only offer abstracts rather than full text articles. In addition, electronic databases were often very slow to conclude searches".

Likewise, Hadebe (2010) did a study on the "use of electronic databases by master's students in the Faculty of Humanities, Development and Social Sciences at the University of KwaZulu-Natal, Pietermaritzburg Campus using a survey method to collect data. The results of the study found that a majority, 81.3% of master's students used electronic databases. Others did not use databases because of various reasons, including lack of search skills, problems with password requirements, lack of knowledge about the existence of the database, and dissatisfaction with electronic database services. The researcher listed recommendations which included: (a) library training should be compulsory to all postgraduate students; (b) and that this training should be well advertised".

4.8.2. Other challenges experienced

Question 16 was an open-ended question, and asked master's and doctoral students to state major challenges that they have experienced when using library databases in the university. The study discovered that there were challenges that these doctoral and master's students encountered while using the library's resources except the ones listed above. Some of these challenges were lack of access to e-books and difficulty to download the whole book. Every time when you try to download the chapter, it will require password authentication.

- With electronic databases, some of the challenges were that important journals and books are not subscribed to for electronic use; they are not available electronically; remote access was difficult because of passwords and login issues; and the difficult of accessing electronic databases if you are off-campus. In some of the databases, students need to register first and to create account before you access information. Other journal articles are being blocked, which denies access.

- Very slow connections due to server capacity, the internet is not user-friendly since I can spend two – three days without access to internet.

- Furthermore, some electronic databases only offer abstracts rather than full text articles. For you to get full texts, you need to use the interlibrary loan service; and it takes time to get articles as they request them from other institutions. This is a challenge if one has to wait for articles to be delivered through the interlibrary loan system. Having some articles blocked denies me access. Lack of South African journals. Less results concerning my topic, less information about my topic. Information not updated.

- Other challenges experienced by postgraduate students is a limited space in computer and library labs, and daily quote limit in the computer labs. Students have to stand long queues to use computers. To solve this problem, the university needs to come up with a solution by building more computer labs for postgraduate and undergraduate students separately.

- In addition, electronic databases were often very slow to conclude searches. A final challenge encountered by doctoral students was that subject librarians

were always very busy attending to students and sometimes not available to help. They refuse to make printouts for us.

Therefore, results of the study indicated that most of the participants found lack of teaching on the use of ICT in order to access electronic databases to be one of the major challenges for their usage thereof. The results of the questionnaire showed that out of 150 respondents, 107 did not receive any training. Consequently, postgraduate students may retrieve unconnected information when searching electronic databases. This is because of lack of training and therefore an inability to harness the different electronic resources effectively. Other factors that were noted in this study included the slow network speed; low bandwidth; lack of space; insufficient ICT equipment; erratic power supply; and inaccessibility of some subscription-based materials. Alasa and Kalechukwu (1999) made the same observations about the state of the information network in Nigeria.

However, despite the availability of electronic resources, postgraduate students at the Delta State University, Abraka lack training on how to access EIR to use them efficiently and effectively for academic research, as reported by Okite-Amughoro, F., Makgahlela, L. & Bopape (2014). It is important to emphasise that in order to have effective access to the rapidly increasing number of electronic databases, students must acquire the necessary skills to find, select and use different information resources. Orientation and training on the use of ICT and how to access the various databases should be extended to newly-registered students in every field of study at the institution. In addition, each faculty should be assigned a subject librarian.

- Articles that are not recent/lack of most recent articles, inadequate time to search articles due to work pressure.
- Never attended any training. The librarian is searching for me, but she takes time to bring feedback or send articles.
- The language sometimes is not familiar to my vocabulary.

4.9. SUMMARY

This chapter presents the results of the study on the use of library resources by master's and doctoral students in the Faculty of Humanities of UL. Questionnaire results display their demographic data and their use of library resources as researchers that add to knowledge. Above all, recommendations were suggested by the respondents to overcome challenges faced by doctoral students when using the library and how to improve on library services to doctoral students. The slow internet connection with 73.6% is a major challenge that postgraduate students are complaining about. The questionnaire results showed that the majority of the respondents used the library electronic resources. Most of the respondents were of the view that the library resources were very important and were dependent on the resources for their research. The most useful electronic databases were Science Direct, Google Scholar, EbscoHost, JSTOR and Sabinet. Recommendations were also made by the doctoral students in terms of improving the library services.

CHAPTER FIVE

MAJOR FINDINGS, CONLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The results of the study were presented, analysed and interpreted in the previous chapter. Statistic description on SPSS and Excel spreadsheet was used to analyse data. The results were presented in the form of tables, graphs and pie charts. After each presentation and analysis, a brief interpretation of the findings was done. This was based on the research that was previously conducted. References to previous studies reviewed in the literature were being referred to. This chapter summarises the major findings of the study in relation to the key research objectives as stated in Chapter One. Based on the findings of this study, this chapter draws conclusions and makes recommendations. However, before this is done, it is necessary to restate the objectives of the study.

5.2 RESTATING THE AIM AND OBJECTIVES OF THE STUDY

The aim of this research was to examine the utilisation of electronic databases by postgraduate students registered for master's and doctoral degrees in the Faculty of Humanities at the University of Limpopo. The study examined whether postgraduate students are using these electronic databases optimally and if not, what the reasons behind the non-usage of these resources are. In order to achieve this aim, the study set out to achieve the following objectives:

- To determine levels of accessibility and awareness of electronic databases by postgraduate students in the Faculty of Humanities at the University of Limpopo;
- To measure the extent to which postgraduate students in the Faculty of Humanities at the University of Limpopo use electronic databases for academic research;

- To assess levels of training that postgraduate students in the Faculty of Humanities received on the use of electronic databases;
- To identify factors that determine the usage and non-usage of electronic databases; and
- To establish challenges that postgraduate students in the Faculty of Humanities encounter in using electronic databases.

5.3 MAJOR FINDINGS

5.3.1 Respondents' profile

The study revolves around hundred and twenty-five respondents. The findings showed that the majority of the respondents of this study were research full master's students. Most of the respondents came from the School of Education than School of Social Science and the School of Languages and Communication Studies. The findings further showed that most of the respondents were female than males in terms of gender distribution. Furthermore, most of the participants who responded to the questionnaire were in the age group of between 31 and 35 years of age, followed by those whose age group was between 36 and 40 years of age.

5.3.2. Access to computers and the internet

The findings showed that almost all respondents (98%) have access to computers and the internet. They access these computers and the internet at UL campus computer laboratories, library computer laboratories, at home and in their offices.

5.3.3. Frequency of accessing the internet

The findings showed that the majority of the respondents access the internet every day. However, there are those who access the internet once a week, while others indicated that they access the internet three times a week.

5.3.4. Awareness of the availability of electronic databases

The findings of the study showed that most of the respondents are aware of the availability of electronic databases in the UL library "to a lager extent" and "to a very large extent". They also showed that they became aware of these electronic databases by attending the library instruction / orientation programme. Other became aware of the existence of electronic databases through their lecturers and supervisors. Some of the respondents heard of the electronic databases from their fellow students.

5.3.5. Frequency of using electronic databases

The findings showed that Google Scholar and google appear to be the most widely used electronic database by most of the respondents, followed by Science Direct, and then the SA E-publications by SABINET. Other electronic databases that were reported to be used by some of the respondents are SA theses and dissertations, Ebscohost, Spingerlink and Refworks. The least used databases are Sage Publications, Proquest, Swetsnet and Oxford Reference Online.

5.3.6. Factors influencing the use of electronic databases

The findings of the study showed that most of the respondents "strongly agree" to using electronic databases that are relevant to their studies or topics, followed by those who "agree" that they use databases which they are familiar with, while others "strongly agree" that they use databases that can be accessed anytime and those that are multidisciplinary in nature.

5.3.7. Training on the use of electronic databases

The findings of this study showed that the majority of the respondents attended training on the use of electronic databases. Most of them attended this training while they were still at first year level, while others attended this training when they registered for their postgraduate degrees. The electronic databases which most of them were trained on are Science Direct, SA E-publications and Ebscohost. Few

respondents also indicated to have attended training on Emerald, Refworks, E-books and on locating books.

5.3.8. Problems experienced in accessing electronic databases

The findings of the study showed that slow internet connection, password and login requirements, printing costs, and lack of knowledge about relevant databases appear to be major challenges experienced or encountered by postgraduate students in accessing electronic databases. Furthermore, other challenges that come from the respondents themselves were that the library does not subscribe to some of the most important journals and books. They showed that when they want to access these journals, they are required to enter passwords or they are expected to make payments before they can access journal articles. The other related challenge that the respondents showed is that they are able to access abstracts of articles only, without getting full text access. Space in computer laboratories is one of the challenges which postgraduate students encounter in accessing electronic databases from the library.

5.4. CONCLUSION

The aim of this research was to examine the utilisation of electronic databases by postgraduate students registered for master's and doctoral degrees in the Faculty of Humanities at the University of Limpopo. The study examined whether postgraduate students are aware of and using, electronic databases optimally, and if not, what the reasons behind the non-usage of these resources are.

Based on the major findings above, it is concluded that postgraduate students in the Faculty of Humanities at UL are aware of the existence of electronic databases accessible through the library website. Even if they indicated to have used some of these electronic databases at UL library, it appears that they are referring to google and Google Scholar. It was shown that most of the respondents have used Google Scholar and google, which are not electronic databases, but electronic information resources. Therefore, their knowledge of electronic databases appears doubtful. This is despite the fact that the majority are showed to have attended training on the use of electronic databases.

The use of electronic databases by postgraduate students at the University of Limpopo is also hindered by lack of knowledge and skills to search these electronic databases effectively. It can be concluded that most of the knowledge and skills on searching electronic databases gained during the training programmes is not sufficient. Lack of knowledge on the most relevant databases appears to have influence on the choice of electronic databases to use for their research topics. Other factors that influence the choice and use of specific electronic databases include familiarity, unlimited access, as well as their capabilities.

Problems and challenges encountered in the use of electronic databases are related to remote access. It becomes difficult for them to access these databases when they are not on campus. The problems identified by both groups of students include slow internet connectivity; inadequately networked computers; lack of access to low-cost printers in the library; inability to use advanced search strategies on most databases; and a lack of awareness of most of e-resources.

5.5. RECOMMENDATIONS

The study showed that access to computers and the internet is no longer an issue of concern to most of the students. Most students appear have laptops, access WIFi in their hall of residences, and are in possession of computers with access to the internet in university-wide computer laboratories and library computer laboratories. The only problem encountered is with regards to space in those facilities. The study recommends *inter alia* that better options should be explored through the University Directorate of Information and Communication Technology (ICT) division and the library. Since it was discovered that the internet is very slow, it is also recommended that the speed of internet connectivity should be improved by acquiring more bandwidth by the ICT division.

Postgraduate students also showed that they do have access to electronic databases when they are off-campus. Students should therefore be provided with a list of databases that are accessible off-campus. The passwords and logins should be provided to students. Personalised websites and LibGuides by subject librarians should be used as platforms for students to access library electronic databases on blackboard.

The study also showed that postgraduate students are aware of electronic databases, but do not have knowledge of electronic databases which they should use when engaged in research. The marketing of the electronic resources by the library should be intensified. Subject librarians should always market these databases when visiting academic departments. Training on the use of subject specific databases should also be intensified. Such training should not only target first year entering and final year students, but also second and third year level students.

Collaboration between academic staff and subject reference librarians should be improved. Lecturers and supervisors should continue to enforce the use of e-resources among postgraduate students.

The findings of this study also identified databases that were least used in the Faculty of Humanities. It is therefore important that studies of this nature be conducted in other faculties to establish the usage of databases that were found to be least used in the humanities. This will help the library management to identify databases that are not optimally used in order to cancel their subscription and to concentrate only on databases that are used.

LIST OF REFERENCES

Abinew, A.A. & Vuda, S. 2013. A case study of acceptance and use of electronic library services in universities based on SO-UTAUT model. *International Journal of Innovative Research in Computer and Communication Engineering,* 1(4): 903-910.

Abubakar, D. & Adetimirin, A. 2015. Influence of computer literacy on postgraduates' use of electronic resources in Nigerian University libraries. *Library Philosophy and Practice.* [Online] https://digitalcommons.unl.edu/libphilprac/1207 (Accessed 16 July 2019).

Abubakar, M.S. & Akor, P.U. 2017. Availability and utilization of electronic information databases for research by Agricultural Scientists in Federal University libraries in North Central Nigeria. *Library Philosophy and Practice.* [Online] https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=4614&context=libphilprac (Date Accessed on 04 October 2019).

Acharya, A. S., Prakash, A, Saxena, P. & Nigam, A. 2013. Sampling: Why and how of it? *Indian Journal of Medical Specialities,* 4 (2) July - Dec 2013.

Aderibigbe, N.A. & Ajiboye, B.A. 2013. User Education programme as determinant of electronic information resources usage in Ndimbe Adedipe University library. *The Electronic Library* 31 (2): 244 – 255.

Adeyoyin, S.O., Idowu. T.A. & Sowole, A.O. 2016. Awareness, Access, and Use of Electronic Information Resources among Seminarians in Nigeria. *Journal of Religious and Theological Information,* 15 (1-2): 1 – 18. https//doi.org/10.1080/10477845.2015.108780. (Date accessed 25 October 2019)

Adekiya, A. & Adyemo, M. 2006. Prospects of digital libraries in Africa. *Journal of Library, Archives and Information Science,* 10 (1): 1-12.

Adetimirin, A.E. 2009. Use of the Internet by information professionals in some selected University Libraries in South West Nigeria, *Information Technologist*, 16 (1) [Online] Available at https://www.ajol.info/index.php/ict/article/view/48194 (Accessed on 04 March 2019).

Adoni, E.E., Omedeko F.S. & Otolo, P.U. 2004. The use of cyber café at Delta State University, Abraka. *Library Hi Tech* 22 (4): 383-388.

Afolabi, M.O. 2007. Welcome address at the Electronic Information for Libraries Network
(Elifinet) Workshop, Obafemi Awolowo University, Ile-Ife, October 18

Agaba, D.M, Kigongo-Bukenya, I.M.N. & Nyumba, J.B. 2005. Utilization of electronic
information resources by academic at Makerere University in Uganda. *University of
Dr es Salam Library Journal, (*1): 18-28.

Aina, R.F. 2014. Awareness, Accessibility and use of electronic databases among
academic staff of Babcock University Business School. *Kuwait Chapter of Arabian
Journal of Business and Management Review,* 3 (6) [Online] Available at
https://platform.almanhal.com/Reader/Article/74571 (Accessed on 01 March 2019).

Aina, A. J. 2013. E- Library approach for resource sharing in an information communication
technology era: Issues prospects and challenges. *International Journal of Library
and Information Science,* 5(4): 77 – 84.

Ahmad, S. & Ahmad, B. 2017. Information seeking behaviour: A survey of undergraduate
students of North Kashmir Laxmi: Solapur.

Ahmad, M. & Panda, K.C. 2013. *Awareness and use of electronic information resources by
the faculty members of Indian institutes in Dubai international academic city (diac): A
survey*.: http://www.interesjournals.org/full-articles/awareness-and-use-of-electronic-
information-resources-by-the-faculty-members-of-indian-institutes-in-dubai-
international-academic-city-diac-a-survey.pdf?view=inline : (Accessed on 14 April
2018).

Ajuwon G. A. 2003. Computer and internet use by first year clinical and nursing students
Ina Nigerian Teaching Hospital. *BMC Medical Informatics and Decision Making*,
3(10): 112- 154.

Akuffo, M.N. & Budu, S. 2019. Use of electronic resources by students in a premier
postgraduate theological university in Ghana. *South African Journal of Information
Management* 21(1), a1026. https://doi.org/10.4102/sajim.v21i1.1026.

Alasa, M. & Kalechukwe, I. 1999. Internet and academic library services development in
Nigeria, *Nigerian Libraries,* 33(1): 17-35.

Alakpodia, O.N. 2010. Assessment of information literacy skills among librarians in Delta State University, Abraka. *The information Technologies*, 7 (1): 55-63.

Ali, Arshad. 2005. The use of electronic resources at IIT Delhi Library; a study of search behaviours. *The Electronic Library*, 23 (6): 691 – 700.

Akman, A. & Mishra, A. 2010. Gender, age and income differences in internet usage among employees in organizations, *Computers in Human Behavior,* 26(3): 482-490.

Amsberry, D. 2008. Talking the talk: Library classroom communication and international students. *Journal of Academic Librarianship,* 34(4): 354-357.

Anasi, S. N., Akpan, I. J. & Adedokun, T. 2012. Information and Communication Technologies and Knowledge Sharing Among Academic Librarians in South West Nigeria. In: L. O. Aina & Mabawonku Eds. Nigerian Library Association @ 50: Promoting Library and Information Science Profession for National Development and Transformation. Ibadan: University Press Plc. (Pp1 – 20).

Ani, O. E. & Ahiauzu, B. 2008. Towards effective development of electronic information resources in Nigerian University Libraries. *Library Management*, *29*(6/7): 504 – 514.

Appleton, L. 2006. Perceptions of electronic library resources in further education. *The Electronic Library*, 24(5):619–623.

Babbie, E. & Mouton, J. 2001. *The practice of social research.* Cape Town: Oxford University.

Babbie, E. & Mouton, J. 2008. *The practice of social research*. Cape Town: Oxford University

Babbie, E. 1995. *The practice of social research*. 8th ed. Belmont: Wadsworth Publishing Company.

Babbie, E. 1997. *The practice of social research.* 7th ed. Belmont, CA: Wadsworth.

Babbie, E. 2005. *The practice of social research*. Belmont: Thompson.

Bamidele, I. A. 2015. *Self-efficacy, reading, library use habits and academic achievement of senior secondary school students in Ogun State, Nigeria.* Unpublished Ph.D. Thesis

Barnard, A., Nash R. & O' Brien, M. 2005. Information Literacy: Developing lifelong skills through nursing education. *Journal of Nursing Education Perspectives,* 44 (11): 505 – 510.

Baro, E.E. & Fyneman, B. 2009. Information literacy among undergraduate students in Niger Delta University. *The Electronic Library,* 27 (4): 659-675.

Baro, E.E., Onyenania, G.O. & Osaheni, O. 2010. Information seeking behaviour of undergraduate students in the humanities in three universities in Nigeria. *SA Jnl Libs & Info Sci,* 76(2): 109-117.

Baron, S. & Strout-Dapaz, A. 2001. Communicating with and empowering international students with a library skills set. *Reference services review* 29(4): 314-326.

Bearman, M., Prior, A. & Pudlowski, Z. J. 1999. *Lessons learned in publishing an electronic journal.* AUSWEB99. Retrieved February 12, 2001 from http://eimo.scu.edu.au/sponsored/ausweb96/educnlbearman/paper.htm.

Bertram, C. & Christiansen, I. 2015. *Towards a theoretical framework to understand PGGE student.* Pretoria: Van Schaik.

Bertram, C. & Christiansen, I. 2014. *Understanding research: An introducing to reading research.* Pretoria: Van Schaik Publisher.

Beverly L. Fortson PhD, Joseph R. Scotti PhD, Yi-Chuen Chen PhD, Judith Malone BS & Kevin S. Del Ben PhD. 2007.Internet Use, Abuse, and Dependence Among Students at a South-eastern Regional University, *Journal of American College Health,*56 (2):137-144.

Birley, G. & Moreland, N. 1998. *A practical guide to academic research.* London: Kogan Page

Bhatia, JK. 2011. Use of electronic resources in degree college libraries in Chandigarhi. *Journal of Library & Information Technology,* 31 (6): 480-484.

Blandy, S.G., Libutti, P. 1995. As the cursor blinks: Electronic scholarship and undergraduates in the library. *Library Trends*, 44 (2): 279-305.

Bless, C. & Higson-Smith, G. 2000. *Social research methods*: *An African perspective.* 3rd ed. Lansdowne: Juta

Bloomberg, L.D. & Volpe, M. 2019. *Completing your qualitative dissertation: A roadmap from beginning to end* (4th Ed). Sage: London.

Bosah, G. 2008. Consortium and capacity building for Nigerian libraries of the future. *Nigerian Library and Information Science Trends*, 5 (1): 60.

Bozimo, D.D. 2007. *Address at the electronic information for libraries network (Elfl-net) workshop.* Obafemi Awolowo University, Ile-Ife, October 14-17.

Bryman, A. 2004. *Social research methods.* 2nd Ed. New York: Oxford University Press.

Buchnana, G. Gunninghan, S.J. Blanford, A. Rimmer, J. & Warwick, C. 2006. Information seeking by humanities scholars. Research and advanced technology for digital libraries. 3652: 218-229. Https://link-springer.com/book/10.1007/11551362 (Date accessed on 29 October 2019).

Burns, N. & Grove, S.K. 1998. *The practice of nursing research: Conduct, critique and Utilization*, 3rd ed. Philadelphia: Saunders.

Burns, N, Gray, J.R. & Grove, S.K. 2014. *Understanding nursing research: Building evidence based practice.* 6th ed. River port lane: Elsevier Saunders

Brophy, P. 1993. Networking in British academic libraries. *British Journal of Academic Librarianship,* 8 (1):49-60.

Butcher, A. & McGrath, T. 2004. International students in New Zealand: Needs and responses. *International Education Journal,* 5(4): 540-551.

Callinan, J. 2005. Information seeking behaviour of undergraduate biology students: A comparative analysis of first year and final year students in University College Dublin. *Library review*, 54(2): 86-99.

Case, D. O. 2012. *Looking for information: A survey of research on information seeking, needs, and behaviour.* 3rd ed. Bingley: Emerald Group.

Carr, J. A. & Rockman I. F. 2003. Information-Literacy Collaboration: A Shared Responsibility. *American Libraries* 34 (8): 52–54.

Chan, L. 1999. Electronic journals and academic libraries. *Library Hi Tech,* 17 (1): 10-16

Chien, T.C. 2012. Computer self-efficacy and factors influencing e-learning effectiveness. *European journal of Training and Development,* 36 (7): 670-686.

Chowdhury, G. G. & Chowdhury, S. 2011. *Information users and usability in the digital age.* London: Facet Publishing.

Clink, S., Crawford, J. & Vicente, A. de. 2004. Use and awareness of electronic information services by academic staff at Glasgow Caledonian University. *Library Review,* 53(8): 401-407.

Cohen, 1. & Manion, 1. 1989. *Research methods in education.* London: Croom Helm

Cole, L. 2004. Back to basics: what is the e-journal? *The Serials Librarian*, 47 (1/2): [Online] http://eprints.whiterose.ac.uk/29/1/backtobasics.pdf (Accessed 08 October 2019).

Costa, S. & Meadows, J. 2000. The impact of computer usage on scholarly communication among social scientists. *Journal of Information Science*, 26: 255-262.

Crawford, J. & Daye, A. 2000. A survey of the use of electronic services at Glasgow Caledonian University Library. *The Electronic Library,* (18) 4: 255-265.

Creswell, J. W. 1994. *Research design: Qualitative and quantitative approaches.* Thousand Oaks: Sage Publications.

Creswell, J.W. & V.L. Plano-Clark. 2007. *Designing and conducting mixed methods research.* Thousand Oaks, California: Sage.

Cuffe, N. 2002. Law student's experiences of information and information technology implication for legal information literacy curriculum development. Paper delivered at

the international Education conference organised by the Australian Association for
Research in Education. Brisbane, December 2002.

Dadzie, P. S. 2005. Electronic resources: Access and usage at Ashesi University College. *Campus-wide Information Systems*, 22(5): 290-297.

Damayanthi, K.P.N. & Senevirathne, T.M. 2008. Print Vs. Electronic: User preferences for information resources: A Comparative Study. *National Conference on Library and Information Studies (NACLIS).* Colombo. Sri Lanka Foundation Institute. CD-ROM.

Damilola, O.A. 2010. *Use of electronic resources by distance students in Nigeria: The case of the National Open University.* Lagos and Ibadan Study Centers.

Dawson, A. 2005. *The impact of the internet on college students. The good, the bad and the ugly.* Paper presented at the University of Nebraska, Kearney, 13 October.

Deng, H. 2010. Emerging patterns and trends in utilising electronic resources in higher education environment: An empirical analysis. *New Library World,* 111(3/4): 87-103.

De Araujo, A. A. 2011. Adjustment issues of international students enrolled in American colleges and universities. *Higher Education Studies,* 1(1): 2-8.

Debois, S. 2019. *10 Advantages and disadvantages of questionnaires. Survey* Anyplace Blog [Online] https://surveyanyplace.com/questionnaire-pros-and-cons/ (Accessed 15 July 2019).

De Fleur, M.L. & Dennis, E.E. 2002. *Understanding mass communication: A liberal arts perspective.* Boston: Houghton Mifflin

DeLone, W. & McLean, E. 1992. Information systems success: The quest for the dependent variable. *Information Systems Research,* 3 (1): 60–95.

De Vincente, A. & Crowford, J. 2004. Use and awareness of electronic information services by academic staff at Glasgow Caledonian University. *Library review,* 53 (8): 401-7.

De Vos, A.S., Strydom, H. Fouche, C.B. & Delport, C.S.L. 2005. *Research at grassroots for the social sciences and human services profession.*

Dilek-Kayaoglu, H. 2008. Use of electronic journals by faculty at Istanbul University, Turkey: the result of a survey. *Journal of Academic Librarianship*, (34) 4: 239-247.

Dion, G. & Schubert, F. 2008. *Social information retrieval systems: Emerging technologies and the application for searching the Web*. IGI Global: London.

Dolo-Ndlwana, N. 2013. *Use and value of library's electronic resources by academics and postgraduate students at Cape Peninsula University of Technology (CPUT), structured dissertation*.

Dulle, F.W. 2015. Online information resources availability and accessibility: A developing countries scenarios. *African Journal of Library, Archive and Information Science*, 25 (1): 45 -57.

Dutton, B.G. 1990*. An introduction to end-user searching*. In: Bysouth, P.T. (Ed) End-user

searching: The effective gateway to published information. London: *Aslib,* 1-18.

Eason, K. Richardson, S. & Yu, L. 2000. Patterns of use of electronic journals. *Journal of Documentation,* (56)5: 477-504.

Ellis, D. 1989. A behavioural model for information retrieval system design. *Journal of information science,* 15(4): 237-247.

Ellis, D. & Oldman, H. 2005. The English literature researcher in the age of internet: *Journal of Information Science, 31*(1): 123-130.

Egberongbe, H.S. 2011 The use and impact of electronic resources at the University of Lagos. *Library Philosophy and Practice*. http://www.webpages.uidaho.edu/~mbolin/egberongbe.htm. (Accessed on 30 June 2018.

Emmanouilides C. & Hammond, K. 2000. Internet usage: Predictors of active users and frequency of use. *Journal of Interactive Marketing*, 14 (2): 17 – 32.

Eribo, F. & Tanjong, E. 2002. *Journalism and mass communication in Africa.* Cameron. New York: Lexington Books.

Esse, U. C. 2014. Effects of library instruction on satisfaction with the use of library and its services: A study of undergraduate students in five universities in the Southern part of Nigeria. *European Scientific Journal*, 10(13): 441-450.

Etim, F.E. 2006. *Resource sharing in the digital age: Prospects and problems in African universities.* Library Philosophy and Practice.

Ezeani. & Osuigwe. 2015. *Information literacy practices of librarian in universities in South East Nigeria.*

Fasae, J.K. & Aladeniyi, R. 2012. Internet use by students of Faculty of Science in two Nigerian Universities. *Library Philosophy and Practice* [Online] Available at http://www.uidaho.edu/~mbolin/lp&p.htm (Accessed 21 February 2019).

Fuchs, E. & Horak, E. 2008. Africa and digital divide. *Telematics and Informatics*, 25: 99-116.

Fourie, I. 2006. *How LIS professionals can use alerting services.* Oxford: Chandos.

Fourie, I. 2010. Interpreting the information behaviour of patients and families in palliative cancer care: A practical approach. *Innovation,* 40: 34-46.

Gakibayo, A., Ikoja-Odonga, J.R. & Okello-Obura, C. 2013. *Electronic information resources utilization by students in Mbarara University Library*. Available at: http://digitalcommons.unl.edu/cgi/viewcontent.cgi? Article=2055&context=libphilprac. Retrieve: 08 December, 2016.

Gastel, B. 2012. *Preparing the literature review section of dissertation.* Texas: A&M University. PowerPoint presentation.

Gash, S. 2000.*Effective literature searching for research.* 2nd Ed. Aldershot: Gower.

Gay, L.R. & Airasian, P. 1996. *Educational research.* Columbus, OH: Merill Prentice Hall.

Geyer L.S.S, Hall, H.H. & Le Roux, M.P.L. 2017. Internet use among university students: A reason for concern. *Perspectives in Education*, 35: 66 -80.

Golwal, M.D, Sonwane, S and Vaishnav, A. 2008. Use of electronic journals in Dr Babasaheb Ambedkar Marathwada University, Aurangabad: A case study. *Proceedings of the 6th International CALIBER-2008*. University of Allahabad,

Allahabad, February 28-29 & March 1, 2008. INFLIBNET Centre, Ahmedabad, pp. 700-707.

Gowada, V. & Shivalingaiah, D. 2009. Attitude of research scholars towards usage of electronic information resources: A survey of university libraries in Karnataka. *Annals of Library and Information Studies,* 57, 184-191.

Graham. S.R. 2002. Historians and Electronic Resources: Patterns and use. *Journal of the Association for History and Computing.*5. (2) [Online] Available at http://hdl.handle.net/20127/spo.3310410.0005.201 (Date accessed: 30 May 2017).

Guffey, M.E. & Loewy, D. 2016. *Essentials of Business Communications.* Cengage Learning: Boston.

Gunasekera, C. 2010.Students usage of an academic library: A user survey conducted at the main Library University of Peradeniya. *Journal of the University Librarians Association of Sri Lanka* 14, 43-60.

Head, A. J. 2013. How freshmen conduct course research once they enter college. http://projectinfolit.org/images/pdfs/pil_2013_freshmenstudy_fullreport.pdf (Date accessed 30 June, 2016).

Hadebe T. & Hoskins, R. 2010. *Information seeking behavior of master's students using library electronic databases in the Faculty of Humanities, Development and Social Sciences of the University of KwaZulu-Natal.*

Hadebe, T. B. 2010. *Use of electronic databases by master's students in the Faculty of Humanities, Development, and Social Sciences at the University of KwaZulu-Natal, Pietermaritzburg Campus.* M.I.S thesis. Pietermaritzburg: University of KwaZulu-Natal.

Hammersley, M. 1993. *Social research: Philosophy, politics and practice.* London: Open University Press.

Hanauer MD, Dibble, E. Fortin, J. & Nananda, F. 2004. Internet use among community college students: Implications in designing healthcare interventions. *Journal of American College Health*, 52 (5):197-202.

Haneefa, M. 2007. Application of information and communication technologies in special libraries in Kerala (India). *Library Review* 56(7):603–620. http://www.emeraldinsight.com/journalshtm?issn=0024-535&volume=56&issue=7&articleid=1621256&show=html (Accessed on 22 January 2011).

Haridasan, S. & Khan, M. 2009. Impact and Use of e-Resources by Social Scientist in National Social Science Documentation Centre (NSSDC), India. *The Electronic Library,* 27 (1): 117-33.

Harter, S. P. 1998. Scholarly communication and electronic journals: An impact study. *Journal of the American Society for Information Science*, (49) 6:507-516.

Heidi, M. 1999. Library instruction and online database training. *Reference Service Quarterly*, 20(3): 259 – 265.

Heilman, M.E. 2012. Gender stereotype and workplace bias. *Research in organizational behaviour,* 32: 113-135.

Harter, S. P. & Kim, H. J. 1996. *Electronic journals and scholarly communication: A citation and reference study.* http://ezinfo.ucs.indiana.edul-harterlharter-asis96midyear.html (Date accessed on 23 March, 1999).

Hopkins, W. G. 2008. *Quantitative research design.* http://www.sportsci.org/jour/0001/wghdesign.html [Date accessed on 14 June 2016].

Huysamen, G.K. 1994. *Methodology for the social and behavioural sciences*. Johannesburg: Thomson.

Ibrahim, A.E. 2004. Use and user perception of electronic resources in the United Arab Emirates University*. LIBRI,* (54)1: 18-29.

Idoniboye-Obu, T. 2013. *The use of library resources by doctoral students of the University of KwaZulu-Natal, College of Humanities, Pietermaritzburg Campus*. University of KwaZulu-Natal, Pietermaritzburg.

Igabaria, M.T., Guimares, T. & Davis, G. B. 1995. Testing the determinates of microcomputer usage via a structural equation model. *Journal of Management Information Systems,* 4: 87–114.

Igbo, H.U. & Imo, N.T. 2017. Electronic information resource sharing among universities in South Nigeria: Opportunities and challenges. *African Journal of Libraries, Archives and Information Science,* 27(1):77-91.

Ikoja-Odongo, J. R. & Mostert, J. 2006. Information seeking behaviour: A conceptual framework. *South African Journal of Libraries and Information Science,* 72(3): 145-158.

Ilker, E. Sulaiman, A.M. & Rukayya, S.A. 2016. Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5 (1): 1 – 4.

Jayasuriya, S. 2008. Access to electronic information: Challenges and initiatives. *Journal of the University Librarians Association of Sri Lanka* 12: 85-106.

Johnson, S., Evensen, O. G., Gelfand, J., Lammers, G., Sipe, L. & Zilper, N. 2012. Key issues fore-resource collection development; a guide for libraries. *International Federation of Library Associations and Institutions*. http://www.ifla.org/files/assets/acquisitioncollectiondevelopment/ (Date accessed on 04 March 2016).

Jonas, S. & Madden, M. 2002. *The Internet goes to college: How students are living in the future with today's technology*. Pew Internet & America Life Project. 15 September.

Kaniki, A. 2000. Prevalent mistakes in the preparation of Library and Information Science (LIS) theses among master's degree candidates at eastern and South African institutions. In Wormell, I. *Prolissa: Proceedings of the first biannual DISSAnet Conference Southern African LIS Research in Progress, Pretoria, 26-27 October, Pretoria: Centre for Information Development*. Pp.39-54.

Kakai, M., Ikoja-Odongo, R. & Kigongo-Bukenya, IMN. 2004. A study of the information seeking behaviour of undergraduate students of Makerere University, Uganda. *World Libraries* 14, (1):14-26.

Kidder, H.K. & Judd, CM. 1986. *Research methods in social relation*. New York: Holt Rinehart and Winston

Kindilchie, A.L. & Samarraie, I.F.2008. Interaction and impact of electronic information resources on Qatar University faculty. LIbri: *International Journal of Libraries and Information Services*, 58(4): 281-293.

Korobili, S. Tilikidou, I & Delistrvrou, A. 2006. Factors that influence the use of library resources by faculty members. *Library review*, 55(2): 91 – 105.

Kothari, C. K. 2004. *Research methodology: Methods and techniques*. New Delhi: New Age International

Koehler, W. 2000. A bibliometric analysis of selected information science print and electronic journals in the 1990's. *Information Research, (*6)1http://digitalcommons.liberty.edu/lib_fac_pubs/54?utm_source=digitalcommons.libert) (Accessed on 14 August 2012).

Kousha, K. & Thelwall, M. 2006. Google Scholar citations and Google Web/URL citations: A multi-discipline exploratory analysis. *Proceedings International Workshop on Webometrics, Informetrics and Scientometrics & Seventh COLLNET Meeting, Nancy, France*. http://eprints.rclis.org/archive/00006416/ (viewed 22 July 2015,

Kuhlthau, C.C. 1991. Inside the search process: Information seeking from the user's perspective. *Journal of the American Society for Information Science,* 42(5): 361-371.

Kumar, R. 2011. *Research methodology: A step-by-step guide for beginners*. 3rd ed. Los Angeles: Sage.

Kwadzo, G. 2015. Awareness and Usage of electronic databases by geography and resource development information studies graduate students in the University of Ghana, *Library Philosophy and Practice* (e-journal). Paper 1210. http://digitalcommons.unl.edu/libphilprac/1210   (Date Accessed on 01 March 2019).

Kwon, Y. 2009. Factors affecting international students' transition to higher education institutions in the United States: From the perspective of the office of international students. *College Student Journal,* 43(4): 1020-1036.

Labaree, R.V. 2009. The risk of 'going observationalist: Negotiating the hidden dilemmas of being an insider participant observer. *Qualitative Research:* 97-122.

Large, A, L., Tedd, A. & Hartley, R.J. 1999. *Information seeking in the online age: Principles and practice.* London: Bowker-Saur.

Heterick, B. 2002. Faculty attitudes toward electronic resources. *Educause Review, 37*, 10-11. Retrieved from: http://net.educause.edu/ir/library/pdf/ERM0248.pdf (Date Accessed on 20 May 2019).

Leedy, P. D. & Ormrod, JE. 2005. *Practical research: Planning and design.* 8th Ed. New York: Macmillan.

Le Roux I. 2018. Coaching as support for postgraduate students: A case study. *South African Journal of Human Resource Management,* Vol 16 [Online] Available at https://sajhrm.co.za/index.php/sajhrm/article/view/939/1433 (Accessed on 04 March 2019).

Lose, T. & Tengeh, R, K. 2016. An evaluation of the effectiveness of business incubation programs: A user satisfaction approach. *Investment Management and Financial Innovations*, 13(2-2).

Luther, J. *Whitepaper on electronic journal usage statistics. Council on library & information resources.*

Maduako, P.U. 2013. *User education and library use in colleges of education in Abia and Imo States.* Library Philosophy and Practice (e-journal), http://digitacommons.unl.edu/libphilprac/955/.

Madukoma, E., Onuoha, U.D., Omeluzor, S. U. & Ogbuiyi, S. 2013. Library instruction and academic performance of undergraduates at Babcock University, Nigeria. *Contemporary Humanities,* 6: 39-58.

Madhusudhan, M. 2010. Use of electronic resources by research scholars of Kurukshetra University. *The Electronic Library*, 28(4):492-506.

Madhusudhan, M. 2008. Use of UGC infonet – journals by the Research Scholars of University of Delhi. *Library Hi Tech*, 26. (3): 369 – 386.

Mahlangu, D.M.D. 1987. *Educational research methodology.* Pretoria: Haum

Majid, S. & Tan, A.T. 2002.Usage of information resources by computer engineering students: A case study of Nanyang Technological University, Singapore. *Online Information Review,* 26(5): 318-325.

Makori, E.O. 2013. Use of information communication technologies in education and training of undergraduate library and information science students in two selected Kenyan universities. *Library Review* 62(8/9): 585-601.

Malhotra, N. K. & Dash, S. 2011. *Marketing research an applied orientation.* London: Pearson Publishing.

Mawere, T. & Sai, K.O.S. 2018. An investigation on e-resource utilisation among University students in a developing country: A case study of great Zimbabwe University. *South African Journal of Information Management (SAJIM).* 20 (1) 860.

Mawindo, D. 2005. *Evaluation of students' use of print and electronic resources at the University of Malawi College of Medicine.* MIS thesis. Pietermaritzburg: University of KwaZulu-Natal.

Maula, H. & Talja, S. 2003. Reasons for the use and non-use of electronic journals and databases: A domain analytic study in four scholarly disciplines. *Journal of Documentation*, 59 (6): 673-691.

Mawindo, D. & Hoskins, R. 2008. Use of print and electronic resources by students at the University of Malawi College of Medicine, *Mousaion,* 25 (1): 86-110.

Maree, K. 2016. *First steps in research*. Pretoria: Van Schaik.

McClure, C.R. & Bertot, J.C. 1998. Measuring Electronic services in Public libraries: Issues and Recommendations. *Public Libraries*, (37) 3: 176-180.

McKendrick, B.W. 1987. *Introduction to social work in South Africa*. Pinetown: Owen Burgess Publishers.

Mammo, Y. 2010. Haramaya University Library and Information services: Looking back to look forward. *The International Information & Library review*, 42 (1): 14-26.

Melnikovas, A. 2018. Towards an explicit research methodology: Adapting research model onion for future studies. *Journal of Future Studies,* 23 (2): 29 – 44.

Mgobozi, M.N. & Ocholla, D.N. 2002. The use of electronic journals for dissemination of scholarly information by the University of Natal and the University of Zululand: A comparative study. *South African Journal of Libraries and Information Science,* 68 (2): 81-93.

Miyanda, E.M. 2012. *Factors affecting utilization of electronic information resources and services by medical students at University of Zambia.* (Thesis Master's of Library and Information Studies) Submitted at University of Zambia.

Modiba, T.M. & Bopape, S.T. 2017. Users' perspectives on computers and internet services offered by public libraries in bridging the digital divide in Ngaka Modiri Molema District, *Mousaion*, 35 (4): 1 – 16.

Molepo, G. T., Khumalo. B. & Mji. A. 2015. *Using mobile technology to enhance learning in rural schools.* Paper presented at the South Africa International Conference on Educational Technologies, Manhattan Hotel, Pretoria, South Africa.

Mouton, J. & Marais, H. C. 1990. *Basic concepts in the methodology of the social sciences*. Pretoria: Human Sciences Research Council.

Moyane, S.P., Dube, L. & Hoskins, R. 2015. Evaluating user education programmes for postgraduate students in the School of Management, Information Technology and Governance at the University of KwaZulu-Natal. *South African Journal of Library and Information Science.* 82(1): 28 – 20.

Naheen, S. & Huma, P. 2017. *Non-probability and probability sampling.* Mass communication theory paper [Online] https://www.researchgate.net/publication/319066480_Non-Probability_and_Probability_Sampling (Date Accessed on 17 October 2019).

Neuman, W. L. 1997. *Social research methods: Qualitative and quantitative approaches.* Boston: Allyn & Bacon.

Neuman, W. L. 2005. *Social research methods: Qualitative and quantitative approaches.* Boston: Allyn & Bacon.

Ngulube, P., Shezi, M. & Leach, A. 2009. Exploring network literacy among students of St Joseph's Theological Institute in South Africa. *South African Journal of Libraries and Information Science,* 75(1): 58-69.

Nsanzya, B. M. K. 2003. *An investigation into the use of electronic library information resources for information searching and retrieval among academic staff at the Edgewood campus, University of Natal.* Pietermaritzburg. M.I.S thesis. Pietermaritzburg: University of Natal.

Nunnally, C. & Bernstein, I. H. 1994. *Psychometric theory*. New York: McGraw-Hill.

Nwalo, K. I. N. 2012. Imposition of Order on Chaos: Cataloguing as the Soul of Librarianship. *A Paper Presented in Faculty Lecture at University of Ibadan on March 28, 2012.*

Nweze, C. M. T. 2011. Undergraduate library instruction in Nigerian universities: A case study of Hezekiah Oluwasanmi Library, Obafemi Awolowo University, Ile-Ife, Nigeria. *Library Philosophy and Practice e-journal*. Retrieved from http://digitalcommons.unl.edu/libphilprac/495/.

Nwose, L. & Jiagbogu, C. O. 2011. Networking resource sharing and consortium building: Panacea for better library services in an electronic age. Nigerian library link: *A Journal of Library and Information Science,* 9(1&2):35 – 41.

Obaseki, T. I., Oye, P. O. & Mamman, E. S. 2012. *Furthering use of electronic information resources in services provision for sustainable development*. Proceedings of the 12th Annual Conference/AGM of Nigerian Library Association Enugu State Chapter: 21st – 23rd November, Enugu, pp. 59 – 64.

Ojo, R. A. & Akande, S. O. 2005. Students access, usage and awareness of electronic information resources at the University College Hospital, University of Ibadan, Nigeria. *Lagos Journal of Library and Information Science. 3*(1): 16 – 24.

Okello-Obura, C. 2010. Assessment of the problems LIS postgraduate students face in accessing e-resources in Makerere University, Uganda. *Collection Building,* 29(3):98–105.

Okello-Obura, C. & Ikoja-Odongo, JR. 2010. *Electronic information seeking among LIS postgraduate students at Makerere University, Uganda.* Library Philosophy and Practice.

Okello-Obura, C. & Magara, E. 2008. Electronic information access and utilization by Makerere University students in Uganda. *Evidence Based Library and Information Practice,* 3(3): 39-56.

Okite-Amughuro, F., Makgahlela, L. & Bopape, S.T. 2015. Challenges of using electronic information resources for academic research by postgraduate students at Delta State University, Abraka, Nigeria. *Mousaion, 33* (4): 23-37.

Okite-Amoghuro, F. A., Makgahlela. & Bopape, S.T. 2014.The use of electronic information resources for academic research by postgraduate students at Delta State University, Abraka, Nigeria. *South African Journal of Libraries and Information Science,* 80 (2):1-7.

Okiki, O.C. & Asiru, S.M. 2011. Use of electronic information sources by postgraduate students in Nigeria: Influencing factors. *Library philosophy & Practice.* http://digitalcommons.unl.edu/libphilprac (Accessed on 24 October 2019).

Okon, E.A. 2010a. Internet access and use: A study of undergraduate students in three Nigeria universities. *Electronic Library* 28 (2): 109-121.

Okon E. A. 2010b. Internet access and use: A study of undergraduate students in three Nigerian universities, *The Electronic Library,* 28 (4): 555-567.

O'Leary, T, J. 2010. Comparative effectiveness research, what kind of studies do we need? *Journal of Investigative Medicine,* 58(6).

Olle, C. & Borrego, A. 2010. *Librarians 'perceptions on the use of electronic resources at Catalan academic libraries: Results of a focus group.* Available at: http://emeraldsight.com./doi/full/10.1108/03074801011015685. (Date accessed on 18 December 2017).

Omeluzor, S. U., Akibu, A.A., Dika, S, I. & Ukangwa, C, C. 2017. Methods, Effect and Challenges of Library Instruction in Academic Libraries. *Library Philosophy and Practice (e-journal).* 1465. htp://digitalcommons.unl.edu/libphilprac/1465.

Omekwe, C. 2010. Web resources for medical research. *Proceedings of the 2nd Professionals Summit on Technology (PSIST),* May 2010: 463-470.

Owen, F. & Jones, R. 1994. *Statistics.* (4th Ed) London: Longman.

Oyadonghan, J.C. & Eke, FM. 2011. Factors affecting students' use of information technology: A comparative study of Federal University of Technology and Niger Delta University. *Library Philosophy and Practice.* htpp://www.unlib.unl.edu/lpp/.

Oyedemi, T.D. 2012. Digital inequalities and implication for social inequalities: A study of Internet penetration amongst university students in South Africa. *Telematics and Informatics*, 29 (3): 302 – 313.

Ozoemelem, O. A. 2009. *Use of electronic resources by postgraduate students of the Department of Library and Information Science of Delta State University, Abraka, Nigeria.* Library Philosophy and Practice. Available at: http://unllib.unl.edu/LPP

Parameshwar S. & Patil, D.B. 2009. Use of electronic resources by the Faculty members and research scholars in Gulbarga University, Gulbarga: A survey. *SRELS. Journal of Information Management* 46 (1).

Pascoe, C., Applebee, A. & Clayton, P. 1996. Tidal wave or ripple? The impact of Internet on the academic. *Australian Library Review,* 13 (2): 147-153.

Peiris, N.D. & Peiris, B.L. 2012. Use of electronic information resources by postgraduate students: Case study. *Journal of the University Librarians Association,* 16 (1): 46-69.

Pickard, A. J. 2013. *Research methods in information.* London: Facet. Publishing.

Polit, D. F. & Hungler, B. P. 1999. *Nursing research: Principles and methods* (6th Ed.). Philadelphia, PA: Lippincott.

Powell, R.R. & Connaway, L.S. 2004. *Basic research methods for librarians. Librarians Unlimited.*

Prabhavathi, D. 2011. Information seeking behaviour of postgraduate students of SPMVV, Tirupati (AP): A study. *International Journal of Digital Library Services,* 1(1): 34-38.

Prytherch, R.J. 2000. *Harrod's librarian's glossary and reference book: A dictionary of 9,600 terms, organizations, projects and acronyms in the area of information management, Library Science, publishing and archive management*, 9th ed. Aldershot Harts: Gower.

Punch, K. 2005. Introduction to social research: Quantitative and qualitative approach. 2nd ed. London: Sage.

Quigley, J., Peck, D.R., Rutter, S. & Williams, E.M. 2002. Making choices: Factors in the selection of information resources among science faculty at the University of Michigan, results of a survey conducted July-September, 2000. *Issues in Science and Technology Librarianship*: 34.

Rajeswari, D. 2005. Use of information sources in digital environment: A case study. 3rd *International CALIBER, 2-4,* Cochin.

Ray, K. & Day J. 1998. Student attitudes towards electronic information resources. *Information Research* .4 (2). Available at: http://informations.net/ir/4-2/paper 54.html.

Reitz, J. M. 2002. *ODLS: online dictionary of library and information science.* (http://www.wcsu.edu/library/odlis.html# (Date accessed on 6 October 2003).

Ren, W.H. 2000.Library instruction and college student self-efficacy in electronic information searching. *The Journal of Association Librarianship, 26* (5): 323-328.

Renwick, S. 2005. Knowledge and use of electronic information resources by medical Sciences Faculty at the University of the West Indies. *Journal of the Medical Library Association* 93(1):21-31.

Romanov, K. & Aarnio, M. 2006. A survey of the use of electronic scientific information resources among medical and dental students, *BMC Medical Education,* 6: 28-35.

Rehman, S. & Ramzy. 2004. Awareness and Use of Electronic Information Resources at the Health Science Centre of Kuwait University. *Library Review,* 53 (3): 150-56.

Rosenberg, D. 2015. *Towards the digital library: Findings of an investigation to establish the current Status of University Libraries in Africa.* Oxford: International Network for the Availability of Scientific Publications (INASP).

Rubin, R. E. 2016. *Foundations of library and information science.* New York: American Library Association.

Sarantakos, S. 200. *Social research.* 3rd Ed. New York: Palgrave. Macmillan.

Satpathy, S.K. & Rout, B. 2010. Use of e-resources by the Faculty members with special reference to CVRCE, Bhubaneswar. DESIDOC. *Journal of Library & Information Technology,* 30(4): 11-16.

Sethi, B. B. & Panda, K. C. (2012) Use of electronic resources by life scientists: A case study of Sambalpur University. *Library Philosophy and Practice* (e-journal). Paper 681.http://www.webpages.uidaho.edu/~mbolin/sethi-panda.htm

Sinha, M.K., Singha, G. & Sinha, B. 2011. Usage of electronic resources available under UGC-INFONET Digital Library Consortium by Assam University library users. *Paper published in conference proceeding of 8th International CALIBER 2011*. Retrieved from http://ir.inflibnet.ac.in/ir40/bitstream/1944/1642/1/50.pdf.

Sharma, C. 2009. Use and impact of e-resources at Guru Gobind Singh Indraprastha University (India): A case study. *Electronic Journal of Academic and Special Librarianship,* 10 (1). Retrieved from

http://southernlibrarianship.icaap.org/content/v10n01/sharma-c01.html. (Accessed 28 August 2019).

Shaughnessy, J., Zechmeister, E. & Jeanne, Z. 2011. *Research methods in psychology (9ᵗʰ ed.).* New York, NY: McGraw Hill

Shen, L. 2012. Graduate students report strong acceptance and loyal usage of Google Scholar. *Evidence Based Library and Information Science* 7(4): 96–98.

Shuling, W. (2007). Investigation and analysis of current use of electronic resources in University libraries. *Library Management*, *28*(1-2): 72-88.

Showkat N. & Parveen, H. 2017. Non-probability and probability sampling. Retrieved from https://www.researchgate.net/publication/319066480_Non-Probability_and_Probability_Sampling (Accessed 05 November 2019).

Shuling, W. 2006. Investigation and analysis of current use of electronic resources in university libraries. *Library Management,* 28 (1/2): 72-88.

Singh, V.K. (2013). Use of e-resources and services by users at Indian Institute of Management Bangalore: A study. *International journal of Humanities and Social Sciences Invention,* 2 (9): 16-31.

Sin, S. -C. J. & Kim, K.-S. 2013. International students' everyday life information seeking: the information value of social networking sites. *Library and information science research,* 35(2): 107-116.

Smith, R.A. & Khawaja, N.G. 2011. A review of the acculturation experiences of international students. *International Journal of Intercultural Relations,* 35 (6): 699-713.

South Africa. 2007. *The Higher Education Qualifications: Section 3 of the Higher Education Act, 1997 (act No. 101 of 1997).* Government gazette no. 30353: 3-29.

Soyizwapi, L. & Hoskins, R. 2009. Use of electronic databases by postgraduate students in a University based Faculty of Science and Agriculture. *Innovation: Journal of Appropriate Librarianship and Information Work in Southern Africa Jun* 38: 94-117.

Soyizwapi, L. 2005. *Use of electronic databases by postgraduate students in the Faculty of Science and Agriculture at the University of KwaZulu-Natal, Pietermaritzburg.* MIS thesis. Pietermaritzburg: University of KwaZulu-Natal.

Stenbacka, C. 2001. Qualitative research requires quality concepts of its own. *Management Decision*, 39 (7): 551 – 555.

Stilwell, C. 2010. Research into information behaviour in the South African context: A preliminary exploration and bibliography: 1980 to date. *Innovation,* 40: 1-33

Sumit, P, Sur Chandra. & Shibojit, C. 2015. Utilization of Electronic Information Resources by Library Users at Assam University. *Journal of Information Management*, 2 (2): 52-58.

Susskind, R. 1996. Information Technology and the future of Lawyers. *Journal of the Law Society of Scotland,* 42(1): 6-8.

Swain, D. K. 2010. Students‟ keenness on use of e-resources. The Electronic Library 28(4): 580-591.

Sweeney, L. 1997. The future of academic journals: Considering the current situation in academic libraries. *New Library World, V.* 98(1132). Retrieved October 6, 1999 from Emerald-Library Database

Tahir, M., Mahmood, K. & Shafique, F.S. 2010. Use of Electronic Information Resources and facilities by Humanities scholars. *The Electronic Library,* 28 (1): 122-136.

Tahmina, F.T. 2018. *Survey research design.* [Online] https://www.slideshare.net/TahminaTanny/survey-research-design (Date accessed on 21 October 2019).

Tella, A, Owolabi, K.A. & Attama, R.O. 2009. Student use of the library: A case study at Akanu Ibiam Federal Polytechnic, Unwana, Nigeria, *Chinese Librarianship: An International Electronic Journal,* 28(5).

Tenopir, C. 2003. What user studies tell us? *Library Journals*, (128) 14: 32-32.

Tenopir C. 1999. Factors that influence Online Database usage. *American Library Association*
[Online]http://www.ala.org/acrl/sites/ala.org.acrl/files/content/conferences/pdf/tenopir 99.pdf(Accessed on 04 March 2019).

Thanuskodi, S. 2012. Use of E-resources by the students and researchers of Faculty of Arts, Annamalai *University. International Journal of library Science,* 1 (1): 1-7.

Thody, A. 2006. *Writing and presenting research.* London: Sage Publications.

Tripathi, M. & Jeevan. 2008. *Enabling electronic resources access for distance learners.* Allahabad: University of Allahabad. Tirupati (AP): A study. *International journal of digital library services,* 1(1): 34-48.

Tsakonas, G. & Papatheodoro U, C. 2006. Analysing and evaluating usefulness and usability in electronic services. *Journal of Information Services*, 32(5):400-19.

Tshisikhawe, T. 2008. *Barriers to e-learning amongst postgraduate student black students in Higher Education in South Africa.* University of Stellenbosch *library and Information Services.* Thesis (MPhil (Information Services.

Togia, A. & Tsigilis, N. 2009. Awareness and the use of electronic resources by education graduate students: Preliminary results from the Aristotle University of Thesaloniki. 2009. *Qualitative and Quantitative Methods in Libraries (QQML).* International Conference, Chania Crete Greece, May 26-29, 2009.

Tomney, H. & Burton, P.F. 1998. Electronic journals: A study of using and attitudes among academics. *Journal of information science*, 24 (6): 419-429.

Turnbull, B., Royal, B. & Purnell, M. 2011. Using an interdisciplinary partnership to develop nursing students' information literacy skills: An evaluation. *Contemporary Nurse,* 38 (12): 122-129.

Tyagi, S. 2011. Use and awareness of electronic resources at IIT Roorkee, India: A case study. *Journal of Library and Information Sciences, JLIS.it* 2(1): 4586-1- 4586-20

Ullah, M. & Emeen K. 2014. Current status of information literacy instruction practices in medical libraries of Pakistan. *Journal of the Medical Library Association: JMLA.*2014 Oct; 102 (4): 281–287.

Van den Aardweg, E.M. & van den Aardweg, E.D. 1988. *Dictionary of educational psychology.* Pretoria: E & E Enterprises.

Waithaka, M., Onyancha, O.B. & Ngulube, P. 2018. Internet use among university student in Kenya, a case study of the University of Nairobi. *Innovation* 57: 47-68.

Wakeling P. & Laurison. 2017. Are postgraduate qualifications the new frontiers of social mobility? *The British Journal of Sociology.* 68 (3): 533 – 555.

Watson-Boone, R. 2000. Academic librarians as practitioner researchers. *Journal of Academic Librarianship*, 26(2): 85-93.

Welman, J. & Kruger, S. 2001. *Research methodology.* Oxford University Press, Cape.

Welsh, M. Parke R. D. Wideman, K. & O'Neil, R. 2001.2001. Linkages between social and academic competence: *A longitudinal analysis. Journal of School Psychology*, 39 (6): 463-482.

Wiberley, S. & Jones, W. 2000. Time and technology: A decade long look at humanists use of information technology. *College and Research Libraries,* 55 (6): 499 – 509.

Wilson, K., Neylon, C., Montgomery, L. & Huang, C.K. 2019. Access to academic libraries: an indicator of openness. *Information Research,* 23 (1): [Online] http://informationr.net/ir/24-1/paper809.html (Accessed 23 November 2019).

 Wilson, T. D. 1999. Models in information behaviour research. *Journal of Documentation,* 55(3): 249-270.

Wilson, T. D. 2000. Human information behavior. *Informing Science*, 3(2): 49-55.

Wilson, T. D. 2006. 60 years of the best in information research: On user studies and information needs. *Journal of Documentation,* 62(6): 658-670.

Wilson, T. D. & Walsh, C. 1996. Information behaviour: An interdisciplinary perspective. Sheffield: University of Sheffield.

World Wide Worx. 2017. Internet access in South Africa 2017: Executive summary. [Online] Available at http://www.worldwideworx.com/wp-content/uploads/2017/07/Exec-Summary-Internet-Access-in-SA-2017.pdf (Accessed on 03 March 2019).

Wright, K.B. 2005. Researching Internet-Based Populations: Advantages and Disadvantages of Online Survey Research, Online Questionnaire Authoring Software Packages, and Web Survey Service. *Journal of Computer-Mediated Communication*, 10 (3) [Online] https://doi.org/10.1111/j.1083-6101.2005.tb00259.x

Xie, L. & Joo, S. 2010. Selection of information sources, and types and tasks. *Proceedings of the American Society for Information Science and Technology.* 46(1): 1 – 18.

Zhang, Y. 1999. Scholarly use of internet-based electronic resources: A survey report. *Library Trends,* 47 (4): 605-827.

Zikalala, S.S. 2017. *Experiences of students organisations on the merger and demerger of University of Limpopo leading to subsequent transition into the New Sefako Makgatho Health Science University*. MA Dissertation: Sefako Makgatho Health Sciences University.

Zikmund-Fisher, B.J. & Trevena, L, J. 2013. Presenting quantitative information about decision outcomes: A risk communication primer for patient decision aid developers. *BMC Medical Informatics & Decision Making,* 13 (supp 2): s7.

UNIVERSITY OF LIMPOPO

ETHICS COMMITTEE

PROJECT TITLE: The Utilisation of Electronic Databases by Postgraduate students in the Faculty of Humanities at the University of Limpopo

PROJECT LEADER: Prof Bopape ST

CONSENT FORM

I, Tintswalo Fikile Ngobeni (Dlamini) hereby voluntarily consent to participate in the following project: (*it is compulsory for the researcher to complete this field before submission to the ethics committee*)

I realise that:

1. The study deals with (eg. effect of certain medication on the human body) (*it is compulsory for the researcher to complete this field before submission to the ethics committee*)

2. The procedure or treatment envisaged may hold some risk for me that cannot be foreseen at this stage;

3. The Ethics Committee has approved that individuals may be approached to participate in the study.

4. The experimental protocol, ie. the extent, aims and methods of the research, has been explained to me;

5. The protocol sets out the risks that can be reasonably expected as well as possible discomfort for persons participating in the research, an explanation of the anticipated advantages for myself or others that are reasonably expected from the research and alternative procedures that may be to my advantage;

6. I will be informed of any new information that may become available during the research that may influence my willingness to continue my participation;

7. Access to the records that pertain to my participation in the study will be restricted to persons directly involved in the research;

8. Any questions that I may have regarding the research, or related matters, will be answered by the researchers;

9. If I have any questions about, or problems regarding the study, or experience any undesirable effects, I may contact a member of the research team;

10. Participation in this research is voluntary and I can withdraw my participation at any stage;

11. If any medical problem is identified at any stage during the research, or when I am vetted for participation, such condition will be discussed with me in confidence by a qualified person and/or I will be referred to my doctor;

12. I indemnify the University of Limpopo and all persons involved with the above project from any liability that may arise from my participation in the above project or that may be related to it, for whatever reasons, including negligence on the part of the mentioned persons.

SIGNATURE OF RESEARCHED PERSON

SIGNATURE OF PERSON THAT INFORMED

APPENDIX B

Dear Participant

I am a master's student at the University of Limpopo investigating the Utilisation of Electronic Databases by Postgraduate students in the Faculty of Humanities at the University of Limpopo

I am inviting you to participate in the research because of the valuable contribution you can make in terms of highlighting the problems that master's and Doctorate students may encounter when using electronic databases.

If you agree to participate I would like you to complete the following questionnaire. Your response is, of great importance not only to me, but also to the University.

I commit myself to keeping the information you provide confidential. You have the right to withdraw at any point of the study, for any reason, and without any prejudice. The questionnaire is anonymous. You are not supposed to provide your names and identity.
The data gathered in this study will only be used for the purpose of the study.

I appreciate your participation in this study, partly in light of your time-constraints. If you have any questions about the research study itself, please contact me.

Thank you.

Sincerely Tintswalo Fikile Ngobeni (Dlamini)
Tel.: (015) 2684258
Email: tintswalo.dlamini@ul.ac.za/ tintswalondlamini@gmail.com

APPENDIX C

INSTRUCTION FOR COMPLETING THE QUESTIONNAIRE

PLEASE ANSWER THE FOLLOWING QUESTIONS BY TICKING (✓) THE RELEVANT BLOCK OR WRITING DOWN YOUR ANSWER IN THE SPACE PROVIDED.

SECTION A: BACKGROUND INFORMATION

This section of the questionnaire refers to the background information. I am aware of the sensitivity of the questions posed; you are assured of the confidentiality of your responses.

1.   Degree registered

Masters by course work	
Masters research	
PhD	

2. School

School of Languages and Communication studies	
School of Education	
School of Social Sciences	

3. Gender

Male	
Female	

4. Age

☐ 20- 25

☐ 26-30

☐ 31-35

☐ 36-40

☐ 41+ years

5. 1. Do you have access to the computer?

☐ Yes

☐ No

5.2. Do you have access to the internet?

☐ Yes

☐ No

6.   If yes, where and how do you in most cases access the internet for research purposes (*Please choose all those apply)*

☐ At the office

☐ At home

☐ Computer laboratory (on campus)

☐ Computers in the library

☐ Cell phone (Smart phone)

☐ Other,   (please   specify)

……………………………………………………………………………

7.   How often do you access internet for research purposes?

☐ Once a week

☐ Every day

☐ Other   (please   specify)

…………………………………………………………………………..

SECTION B: AWARENESS AND USE OF ELECTRONIC DATABASES

8.   To what extent are you aware of the availability of electronic journals (databases) for Humanities in the library? Please tick in the box that describes your response using the following scale: 1 = To no extent at all; 2 = To no extent; 3 = To some extent; 4 = To a large extent; 5 = To a very large extent.

1	2	3	4	5

9. How did you find out about these library databases? *(Please tick all those that apply)*

- ☐ Library orientation/ instruction
- ☐ Subject Libguides
- ☐ Lecturers / supervisors
- ☐ Fellow students
- ☐ Friends
- ☐ The library webpage
- ☐ Other   (please   specify)
  …………………………………………………………………………………….

10. How frequently do you use each of the following online databases? Please use the following scale: 1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Often; 5 = Always

Name of database	1	2	3	4	5
Access Medicine					
Access Science					
American Chemical Society					
Biomed Central					
BMJ Group					
Business source complete					
Ebrary					
Ebscohost Discovery Services					
EbscoHost					
Emerald Insight					
Google					
Google scholar					

ISI Web of Knowledge					
Institute of Physics (IOP) (plus historical archives)					
JSTOR					
ProQuest					
Oxford Reference Online					
ProQuest					
Refworks					
SA e-Publications (SABINET)					
Sabinet Legal Product					
Sage					
SA Tenders					
SA Theses and dissertations					
Springer link					
Science Direct					
Science Access					
Swetswise					
World Cat Local (SABINET)					

SECTION C: FACTORS INFLUENCING THE USE OF DATABASES

11. What influences your choice of databases that you frequently use? Please use the following scale: 1 = strongly disagree; 2 = Disagree; 3 = Agree; 4 = Strongly Agree.

Influence	1	2	3	4
I use those that are relevant to my study / topic				
I use only databases that are convenient and easy to use				
I use databases that can be accessed any time				
I use only databases that can be accessed off-campus				
I use those that have the ability to save, print and e-mail search results				
I use those that have the ability to export to RefWorks				
I use databases that I am familiar with				
I use databases that are multidisciplinary in nature				
I don't use databases to access information				

12. Have you attended any library orientation or library instruction on the use of databases?

YES	
NO	

13. When did you attend that training on the use of databases?

I have never attended any training on databases	
When I was still a first-year student	
When I was a second-year student	
When I was a final year student	
Just after registering my Postgraduate Degree (Master's / PhD)	

Other (Please specify)	

14. Which databases were you trained on? Please list any five of those databases.

SECTION D: PROBLEMS EXPIRIENCED IN USING DATABASES

15. What problems do you experience when using the online library databases? Please use the following scale: 1 = strongly disagree; 2 = Disagree; 3 = Agree; 4 = strongly Agree.

	1	2	3	4
Lack of knowledge about relevant databases in my field				
Password requirements				
Difficulty in searching				
Not being trained on how to search these databases				
Printing costs				
Slow internet connection				

16. Except for the challenges listed above, what other problems do you encounter when searching information from the electronic information resources?

THANKS VERY MUCH FOR YOUR PARTICIAPTION