# PERCEPTIONS OF FINAL-YEAR STUDENTS AND SUBJECT LIBRARIANS ON THE ADEQUACY OF LIBRARY USER EDUCATION PROGRAMMES AT THE UNIVERSITY OF LIMPOPO

BY

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RESEARCH DISSERTATION

Submitted in fulfilment of the requirements for the degree of

MASTERS

In

INFORMATION STUDIES

In the

FACULTY OF HUMANITIES

(SCHOOL OF LANGUAGES AND COMMUNICATION STUDIES)

at the

UNIVERSITY OF LIMPOPO

SUPERVISOR: Prof S.T. BOPAPE

2020

**DECLARATION**

I, Kgaogelo Samson Shai, declare that the dissertation hereby submitted to the University of Limpopo for the Degree of Master's in Information Studies in the Discipline of Information Studies: Department of Communication, Media and Information Studies of the School of Languages and Communications Studies, Faculty of Humanities, 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 material contained herein has been duly acknowledged.

Signature…………………………….....			Date………………….......

(Mr Kgaogelo Samson Shai)

**DEDICATION**

This work is dedicated to my Mother, Lydia Nnope Shai; her sister, Mapula Pricilla Makwela; my grandmother, Alice Ramadimetja Mothiba; my siblings, Owen Mapatla Shai, Mashia Vincent Shai, Nkuba Percy Shai; and my late father, Alex Madimetja; and sisters Mohlago Valencia Shai and Mokgadi Mahlatse Shai, may their souls rest in peace.

They all supported me in diverse ways.

## ACKNOWLEDGEMENTS

**ABSTRACT**

The purpose of the study was to investigate the perceptions of final-year students and subject librarians towards the adequacy of the structure and content of library user education programmes at the University of Limpopo (UL) library. Both quantitative and qualitative research methodologies were followed and a descriptive and phenomenological research designs respectively were also adopted for the study. The population for the study consisted of 260 final year students and eight (8) subject librarians, who were selected through systematic random sampling (students) and purposive sampling methods (subject librarians). Data were collected from students and subject librarians using questionnaires and semi-structured interviews. An analysis of content for UL library website was also conducted to triangulate the results of the study. Quantitative and qualitative were analysed using excel spreadsheet and thematic analysis respectively.

The final year students at the UL showed some positive perceptions and attitudes towards the library in general and to the adequacy of the content and structure of its user education programmes. They are of the opinion that library staff should commit to good customer care principles and regular delivery of user education programmes, and that user education programmes at the UL library should be a credit-bearing module/course for all first-level students in all four faculties.

On the structure and content, the findings of the study revealed that the UL library provides user education programmes such as library orientation, bibliographic instruction, information literacy, on-on-one training, online interactive course, library guides and brochures with different content and for different library users. Website content analysis found subject LibGuides were used as platforms for advertising Bibliographic Instruction programmes. However, impediments experienced by subject librarians towards a comprehensive delivering of user education programmes at the UL library include insufficient time allocated to user education programmes, lack of venues to conduct user education sessions, inaccessibility of social media tools, LibGuides not going live, insubstantial partnerships between stakeholders (academics and students) and the

library staff, and low attendance of user education programmes by undergraduate students.

The research recommends that there should be a credit-bearing and compulsory information literacy programme offered as part of the curriculum at first levels of study at the UL. Furthermore, library staff need to have a continuous engagement with both academic staff and students, and notify them about important events within the library. The library website should also be upload recorded online user education sessions which can be accessed by library users any time.  The library management should also engage ICT to open the social media platforms as that is where most students prefer to interact. This can also be used to deliver user education programmes.

**Key words**: User perception, subject librarians, user education programmes, academic library, University of Limpopo, bibliographic instruction, library orientation and information literacy, course integrated user education.

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# CHAPTER ONE
# INTRODUCTION AND BACKGROUND TO THE STUDY

## 1.1    INTRODUCTION

The university or academic library is the foundation upon which any institution of higher learning is built. Hoskins, Dube and Moyane (2015) express the view that the university or academic library is in essence the "heart of any university". Learning, teaching, studying, research and community engagement, which form part of the fundamental and essential goals of any university, depend upon the existence, availability, accessibility and use of information sources and resources in the academic library by library users, that is, academic staff, students and researchers. Without the library or academic information services centre, teaching, learning, research and community engagement activities will not take place in a university or any institution of higher learning. Therefore, the role of the academic library is to support the university in achieving its primary goals of teaching, learning, training research, and community engagement through the acquisition, organisation and dissemination of information resources and materials. Omeluzor, Akibu, Dika and Ukangwa (2017) confirm that the primary goal of any academic or university library is to support the educational programmes of institution through acquisition of pertinent information materials, processing them, organising them for easy access, and disseminating or distributing them to library users in order to enhance learning, teaching and research activities of the university community. Therefore, the role of an academic library "in the expansion of higher education and research" is critical (Folorunso & Njoku 2016: 289).

However, it is common knowledge that the academic library is not the only centre in an academic institution that supports the institution in realising its goals of teaching, learning, research and community engagement. There are other centres such as student development units, centre for academic excellence, research and innovation, community engagement centres and other centres found in universities, which also require funding and support from the university management. Therefore, today, academic libraries find

themselves having to contest and compete for funding and sustenance with other significant services within the university, such as marketing and communication, research administration and development, student study skills support services, and sports and recreation, student development services and other services. This competition is compelling academic libraries to justify for every costs the incur for services and products they are providing or planning to provide (Hoskins et al. 2015). To prove their worth, academic libraries should demonstrate that their services and resources are utilised effectively and optimally in support of the parent organisation to meet its educational, research and development goals of the university.

In order for the students (both postgraduate and undergraduate), academic staff and researchers to make optimal usage of the academic library as well as its resources, services and materials, they require certain skills and competencies to obtain information from library resources and services effectively. The academic library should therefore ensure that it makes its users aware of those resources and services that are offered, where to find them, and how to access and exploit what is available for them (Agyen-Gyasi 2008; Ashraf & Gulati 2013). Therefore, "there cannot be any connection between library users and the library materials, tools and services if there is no proper education or training being provided to the users who may not have prior knowledge and skills to exploit those materials, tools and services" (Folorunso & Njoku, 2016:290).

One of the ways in which university libraries fulfil the mission of the parent institution and to ensure that library services are utilised is through the provision of user education programmes. Okoye (2013a) expounds how user education has been defined by various authors, including Fleming (1990), Tiefel (1989), and Wisconsin Library Association (2010). Although individual authors and institutions may have various definitions for the concept library user education, this concept can be described as the programmes initiated by academic libraries for educating or teaching the library users on how to make the best usage library services and resources effectively and efficiently. It involves instructing or teaching the library users on how to use of library facilities, collections and services, as well as making them aware of the value of information found in an academic library to

enable them to seek and locate information as and when they require it from the library. Library user education is also referred to as library instruction, and is an essential part of education for life (Uwakwe, Onyeneke & Njoku, 2016). The library user education programme prepares library users for the continuing process of self-education. With the introduction of library user education in academic libraries, the university library users will be in a position of enhance their skills to be able to critique the importance of library materials and resources, as well as to develop critical thinking skills and to become independent and life-long learners (Molepo & Bopape, 2018; Ahenkorah-Marfo & Teye, 2011). Every university or academic library must therefore ensure that its resources are effectively and optimally utilised by students, academic staff, and researchers. This can only be achieved if academic libraries design and implement worthwhile, sustainable and resourceful library user education programmes. Okoye (2013a: 2) notes that "importance of user education cannot be over-emphasised as it is believed that improving users' knowledge of their libraries' collection and services could be a motivation factor for more usage and more demands on the library".

The main motive behind the provision of library user education programmes in university libraries is to ensure that library users cope with the body of knowledge that grows every day in every discipline, including literature and resources for managing new information and knowledge. This growth in knowledge is triggered further by the advancements in information and communication technologies (ICTs) in university libraries, coupled with the explosion and proliferation of information sources and resources, both in hardcopy and digitised formats. Omeluzor et al. (2017:1) confirm thus: "the continuous growth in library collections and technological advancement in information handling, retrieval and use, there is the need to provide adequate library instruction to library users." Kumar and Phil (2009) also express the same feeling that a remarkable growth in the volume of books, newspapers, magazines, journals, and other publication, including the resulting complexities experienced by academic libraries and the procedures and approaches by which information and knowledge are organised and disseminated impose and justify the need for user education in academic libraries. Titi, Terfa and Member (2016) also justify the presence of library user education in university libraries by saying that it is attributable

to the developments in higher education institutions worldwide, alongside ever increasing growth of library collections, technological advancements in handling and retrieving information and important changes in the nature of reference services. Therefore, with the rapid growth of ICTs in the process of retrieving and managing information is becoming more complex than ever before. As new online and web-technology services are utilised more and more in university libraries, it is equally important that library users must also be educated or trained on how to make the best use of these new services and systems. It is therefore of paramount importance that academic libraries should educate or train their users on how to locate information from different library resources and services (Okoye 2013a).

## 1.2    BACKGROUND INFORMATION

The University of Limpopo (UL) library and information service serves approximately 25 000 library users, staff and students and, like any other academic library, it has materials for studying, teaching, learning and research. This library also shares information with its two branches (Mankweng Hospital campus library and Limpopo Department of Health library), communicates and exchanges resources with other libraries though inter-library loans (ILL) schemes nationally and internationally. Collections of information sources at UL are available electronically and in printed format. It has subscribed to several electronic databases such as Ebscohost, SABINET, Science direct, Jstor, Proquest, bibliographic reference management tools and plagiarism detection tools such as RefWorks and Turnitin.

It is therefore anticipated that library users should have unlimited and unmediated access to all these resources. However, to obtain access to these services and resources depends largely on whether library users are aware of these resources and whether they have acquired sufficient skills and competencies to exploit these resources effectively and efficiently. It is for this reason that the UL library has designed user education programmes to create awareness among library users and to train them to make the best or optimal usage of these resources. This is done to ensure the users are information literate and

enable them to deal with issues of plagiarism and eventually produce quality academic works.

Therefore, the UL library offers library instruction programmes that include general introduction to the library and to basic information skills such as classroom teaching, user guides, orientation, guided library tours, one-on-one instruction, online instruction (through backboard), as well as a detailed, formalised bibliographic instruction and information literacy programmes that enable students to locate, search, retrieve, evaluate and use information relevant to their studies and academic ventures. Very recently, the subject librarians have also developed course-related web pages to help library users perform various tasks, such as using library resources or conducting research known as LibGuides.

## 1.3    RESEARCH PROBLEM

Academic libraries provide user education programmes with the aim of educating library users in how to use the library and its resources independently and efficiently. This is provided through the acquisition of skills and competencies in the identification, location, retrieval and exploitation of information sources and resources that are available at their disposal within the library (Ilogho & Nkiko, 2014; Connaway, 2015). After undergoing user education programmes, it is expected that most students would have information searching and retrieval skills, especially when they reach their final year or honours level where they must conduct research as one of their modules. Despite the students having attended library instruction or user education programmes provided by the library, it appears that most of them in the last year of their studies or at honours level, still encounter problems in as far as searching and retrieval of information for their academic undertakings on their own (Maduako & Maduako, 2013; Titi et al. 2016; Lwehabura, 2018). Hoskins et al. (2015:29) confirm thus: "although most university libraries have extensive collections ranging from print to electronic resources, it has emerged in the literature that most university students are unable to use information resources effectively and efficiently". Titi et al. (2016) also declare that many studies have shown that despite

the availability of different types of user education programmes for students, many still don't know how to look for information in the academic library. It appears that most students still depend on the services of subject and reference librarians who search information for their research projects on their behalf. Elsewhere, Maduako and Maduako (2013) shows that most students do not have any idea how to search for information for their academic works. Suleiman (2012) mentions that "chances of retention and internalisation of the new information gained are quite slim, hence the inability of students to utilise library resources, even after taking the library instruction course". Furthermore, the problem of plagiarism and incorrect citations also seems to be prevalent among most of the final-year or honours students. "Even in universities where students are given the basic education on how to use the library, several students were found who were already in the middle of their studies who did not even know the process of registering as library members" (Abubakar, 2003; Okonkwo, 2004). Some of them were not even aware of the fact that books could be borrowed, while others could not manage to retrieve the information they needed".

Therefore, it appears there is a noticeable lack of the basic information searching skills and techniques as well as competencies on the part of students essential for the usage of academic library and information resources among the students during their entire stay in institutions of higher learning (Akpovire, Alawoyin, Adebayo & Esse, 2019). This makes one wonder about the adequacy and quality of the content and structure of user education sessions offered in university libraries, which warrant research and evaluation from the perspective of both the presenters and the beneficiaries, that is, librarians and students themselves. Most studies conducted on the adequacy of user education programmes were singles dimensional, on either the students or the librarians, while the current study looks at both dimensions. In most African university libraries, popular user education programmes appear to be library tours and library orientation, which might not be sufficient and adequate to embed the required information searching skills for the optimal usage of library resources and services (Lwehabura, 1999; Baro & Keboh, 2012). It is therefore assumed that a clear understanding of the opinions of students (the beneficiaries) and subject librarians (the deliverers) about the adequacy and quality of the

content and structure of user education programmes would help in improving and developing future programmes. This study investigates the final-year students' and subject librarians' perceptions and attitudes towards the adequacy of structure and content of library user education programmes at the UL library.

## 1.4 PURPOSE OF THE STUDY

### 1.4.1 Aim

The aim of the study is to examine adequacy of the structure and content of user education programmes at the University of Limpopo library by evaluating perceptions and attitudes of final-year students towards their adequacy therein, as well as the impediments as experienced by subject reference librarians in delivering user education programmes at the University of Limpopo library.

### 1.4.2 Objectives

- To describe the structure and content of library user training programmes at the UL library.
- To establish perceptions of final-year students towards the adequacy of the structure and content of user education programmes at the UL library.
- To examine the extent to which the user training improved students' use of the library and its resources.
- To identify the attitudes of final-year students towards user education programmes at the UL library.
- To discover the impediments or challenges experienced by librarians in offering user education programmes at the UL library.

## 1.5 SIGNIFICANCE OF THE STUDY

It is envisaged that the results of the study will benefit both the UL library and students. The library will be able to make an informed decision when redesigning their user education programmes, while the students will have an opportunity to express their

dissatisfaction with user education at the UL, if any. Furthermore, the results of the study may help other academic institutions within South Africa to determine the importance of perceptions regarding the role of the library in offering a library user education programme. The library may find insight into the perceptions of students regarding the library and what constitutes those perceptions. Students' perceptions will help the library to improve its services to meet the needs of students, if there are any deficiencies. In a way, this study provides students with the opportunity to express their views about the library user education programmes and if those views are taken into consideration, students will benefit profusely. Lastly, it is expected that the findings of this study will contribute to the existing literature in the field. It is envisaged that one or two articles derived from the objectives of the study on the perceptions of students of the role of the library user education programmes will be published in any of the accredited South African Library and Information Services journals.

## 1.6    METHODOLOGY

### 1.6.1    Research design
This study adopted a concurrent of qualitative and quantitative research methodologies and triangulate through the content analysis of the UL library website. A descriptive and phenomenological research designs to understand the perception of students and subject librarians towards the adequacy and challenges of user education programmes at the UL library were adopted.

### 1.6.2    Population
The population for this study consisted of two-hundred and sixty (260) UL final-year students and eight (8) library staff members responsible for delivering user education programmes at the UL library. From the students, the researcher solicited their perceptions of the adequacy of user education programmes and from subject librarians, the researcher solicited information about the structure and content of the user education programmes at the UL, as well as challenges encountered in conducting and delivering user education programmes.

### 1.6.3    Sampling method

This study employed systematic random sampling to arrive at a sampling frame from the students' population and purposively selected the subject librarians as participants for this study. Details of how these methods that were applied will be provided in chapter three of this report.

### 1.6.4    Data collection methods

Interviews and questionnaires were used as data collection methods in this study. Interviews were used to collect qualitative data from subject librarians about the structure and content of the UL library user education programmes and the challenges encountered when rolling out user education programmes at the UL. Questionnaires were also distributed to 357 final-year students at the UL library in various departments and schools. Out of 357 questionnaires, 260 were received back. Content analysis of the UL library was also used for the purpose of triangulation.

### 1.6.5    Data analysis

In this study, thematic analysis was used to analyse qualitative data, while descriptive statistics were used to analyse quantitative data from students' questionnaires.

### 1.6.6    Quality criteria

Establishing the trustworthiness and rigour of research depends on the research approach that is being adopted. Since this study uses both qualitative and quantitative research approaches, the quality and value of the research was first established by conducting a pilot project/study to test the easiness of the instrument used. This assisted the researcher in identifying potential problems that may influence the quality and validity of the findings. To establish the trustworthiness of the study's credibility, transferability and dependability were also taken into consideration, the details of which will be provided in chapter three of this report.

### 1.6.7 Ethical considerations

Before the data were collected, there were some ethical considerations that needed to be adhered to, such as privacy, informed consent, and ethical clearance, which will be elaborated on in chapter three of the research report.

## 1.7 DEFINITION OF TERMS

For this study, it was important to define key terms because definitions enable the readers to have a common understanding of the words or terms that frequently appear in this study. This will allow people reading the work to be on the same page when discussing or reading about an issue. The definitions provided in this study are expressed in relation to or in the context that they are used in the current study.

### 1.7.1 Information

Information can be better defined using the DIKW (Data, Information, Knowledge and Wisdom) model. According to Ackoff (1989) and Zins (2007) a systems theorist and professor of organisational change, the content of the human mind can be classified into five categories, namely, "(1) Data: symbols; (2) Information: data that are processed to be useful; provides answers to 'who', 'what', 'where', and 'when' questions; (3) Knowledge: application of data and information; answers 'how' questions (4) Understanding: appreciation of "why"; (5) Wisdom: evaluated understanding" (Frické 2019). However, since the intent is to define only information, the last three elements of the DIKW model are not be included in this discussion.

Data can be referred to as raw facts that have not been interpreted. We can simply say it merely exists and has no significance beyond its existence. Its existence may be "in any form, usable or not. On its own it does not have meaning in itself. In computer jargon, a spreadsheet generally starts out by holding data. Information is data that have been given meaning by way of relational connection". This 'meaning' "can be useful, but does not have to be in computer parlance, a relational database makes information from the data stored within" (Billinger, Castro, & Mills, 2004). Ultimately, "information can be defined as ideas, facts, and imaginative work of the mind and data of value, potentially useful in

decision-making, question answering and problem solving" (Kaniki, 2001:19; Frické, 2019). Information is used in this study to outline the content which a student would need from the library for their studies and projects.

### 1.7.2 Academic library

Nitecki (2012) remarks that "an academic library is primarily a teaching, learning and research environment". It is designed to implement teaching, learning and research through the use of all library materials, services and resources. Academic libraries or information centres support the teaching, research and community development needs of the institutions or universities they serve. It is the responsibility of the university library to make sure that their information sources, resources and services are used optimally to benefit their users (Sabash & Krishnamurthy, 2014). In this research, the University of Limpopo library is referred to as an academic library. For the purpose of this study, academic library refers to the university libraries.

### 1.7.3 Library user

Library user denotes to any member of the public who utilises or has potential to make use of the library services, materials, facilities or resources (Department of Arts and Culture 2010:3). Library users at the UL include students, academic staff, researchers, administrative staff and members of the Mankweng community. But in this study, the focus focussed on students who are in the final or last year of study and, especially, those who are doing research as part of their modules. Students doing honours programmes also form part of library users who are investigated in this research.

### 1.7.4 User education

A long standing definition of user education has been the one proposed by Singh (1992:15) as "any effort, formal or informal, which will guide and instruct existing and potential users in the recognition and formulation of their information needs, in the effective and efficient use of information services and the assessment of source materials that can satisfy specific requirements". In its nature, it is composed of "library orientation", "library bibliographic instruction" and "information literacy". Omeluzor et al. (2017) also

define user education as "one of the core activities of academic libraries that entail educating, enlightening, guiding and helping library users in identifying, understanding and utilising library information resources effectively". However, in this study, the other strategies used for teaching university library users (staff and students) on how to effectively and efficiently make the best use of library resources and services. Such user education programmes include guided tours, library brochures, LibGuides, and one-on-one training are also included.

### 1.7.5    Final-year students

Final-year students refer to students in their last year of study for their undergraduate bachelor's degree. The academic programme levels of a bachelor's degree can either be three years or a four years. Therefore, students who were at either the third or fourth year level of study, were regarded as final year students in this study.

### 1.8    Organisation of dissertation

This study is organised into five chapters as follows:

Chapter one provides the introduction and the background to the study. The problem that gave rise to this study, as well as the aim and objectives of this study are presented in this chapter. Included in this chapter are also a brief research methodology which was used for collecting data, the significance of the study and definition of concepts that frequently appear in this research report.

Chapter two presents the literature review. It introduces the concept of user education and summarise what previous research on user education programmes in university libraries have revealed. The literature review is also presented in accordance with the objectives of the study.

Chapter three presents a detailed and in-depth description of the stages of the research processes that were adopted and followed in this study. The chapter outlines the research methodology which contains a description and explanation of research approach,

research methods, population, sampling, data collection methods and analysis, as well as procedures that were followed in an attempt to adhere to the ethical considerations. Chapter four presents the findings of the study in detail, analysis and interpretation of data. Since this study adopted a qualitative research approach, data are presented descriptively and through categorisation of the responses into themes. This method of presenting and analysing data is called thematic analysis. This chapter also provides an integration of the findings with the theoretical framework and literature reviewed.

Chapter five concludes the study by presenting a summary of the overall research findings, stating the limitations of the research and providing recommendations for the study and for future research.

# CHAPTER TWO
# LITERATURE REVIEW

## 2.1    INTRODUCTION

The preceding chapter introduced the reader to the central focus of this study. The research problem which this study investigates was stated, as well as the motivation for conducting such a study. In the introductory and background chapter, the main concepts that frequently appear in this study were also identified and defined according to the context in which they are used in this study. The current chapter provides an in-depth and critical review and analysis of the literature review for the study. A review or reflection of existing literature in any study is essential because it permits the researcher to gain an understanding of the current topic, that is, of what has already been researched on the current topic and how it has been researched, and what the main concerns, disputes and debates surrounding the current topic are. In this research, the main areas of concerns are the structure and content of user education programmes at the UL library, their impact on library users, the perceptions of users towards the content and structure of user education programmes, as well as the challenges encountered by librarians in delivering user education programmes.

Literature review also assists in strengthening confidence that the research topic is worth pursuing. Leedy and Ormrod (2010:66) state that "a review of literature describes theoretical perspectives and previous research findings regarding the problem at hand", while Vithal and Jansen (2004) emphasise that literature review demonstrates that the researcher has read extensively and intensively about the topic. Furthermore, "a literature review needs to draw on and evaluate a range of different types of sources, including academic and professional journal articles, books and web-based resources. It helps in the identification and location of relevant documents and other sources of information" (Rowley & Slack, 2004: 31)

Therefore, successful investigation depends largely on a well-orchestrated and thorough engagement with relevant related and literature available on the topic. The studies that were previously conducted in the field of library and information sciences or studies and other related fields of studies, related to the current topic are explained in this chapter. The chapter also introduces learning theories within user education, as well as the theoretical frameworks on which this study is based. Furthermore, the chapter provides a critical review of information pertaining to user education in academic libraries by introducing the basic components of the user education in academic libraries. This is followed by a glance into the literature based on the objectives of the study. However, before coming to that, it is also necessary to discuss the theoretical framework on which the study is based.

## 2.2 THEORETICAL FRAMEWORK

Researchers have worked on various theories in support of their studies and stated that theoretical frameworks enable the researcher to develop a deep understanding of the phenomenon (Anfara & Mertz, 2013:6; Welman, Kruger & Mitchel, 2012:21). Research theories are linked to data collection and data analysis (Punch 2013:64) and focus on capturing the specific problem (Welman et al. 2012:22). The theories and principles of learning have also gained a far-reaching recognition in library and information field, more especially in educating and training library users to user library resources effectively (Mahwasane 2016). To this end, several authorities have also expressed a need for further on in-service training and development around learning theories and pedagogies (Hall, 2013; Hall, 2017; Moselen & Wang, 2014). It is therefore important for user education librarians to acquaint themselves with these learning theories and principles in order to plan and implement library instruction or user education programmes around them (Winzenried, 2011). Ciccone and Hounslow (2019:6) emphasise that there is "a need for a greater understanding of sound pedagogical practices and instructional design theory and practice" by academic librarians. Learning theories address the process of learning.

Three "categories/philosophical frameworks" within which learning theories form parts exist. The most commonly known "philosophical frameworks" within which learning theories are "behaviourism, cognitivism and constructivism". All learning programmes apply pedagogical approaches based on either or a combination behavioural, cognitive and constructivist learning theories and principles (Schunk, 2012; Ertmer & Newby, 2013). For the purpose of this study, the behaviourism theory is adopted to provide guidance to this study. This learning theory is concerned with the learner as an active participant who must react to some environmental stimuli (Kay & Kibble, 2016). This entails that learning occurs when there are observable changes in performance of the learner that are demonstrated after being exposed to some specific environmental stimuli (Ertmer & Newby, 2013). In this study library user education programmes are equated to the environmental stimuli which the students come into contact with, in an academic institution. Observable changes in performance by the learner are therefore measured through their perceptions of user education programmes.

The behaviourists view learning as a connection or association between an individual and the environment around him/her. The outlook of students towards user education training can obstruct or boost their attainment of skills in library usage, or some external barriers such as environmental and user education programme structure can also prevent or support students in their learning of library skills. The implication is that a user who has skills in library use will tend to use the library more frequently; since he or she is not frustrated by not being able to locate the material he wants. He or she will derive joy from using the library and will know the value of the library. The application of the learning theories reviewed above will greatly improve user education and use of libraries in institutions of higher learning" (Maduako & Maduako, 2013: 5). Therefore, students' habits of using the library after attending user education will also be established.

Most of the studies that looked into the user education programmes offered for university students from the behaviourist theory point of view result with the students or participants information behaviours. For example, the study conducted by Brunton (2005:55) which "examines the interconnected theories of students' experience, perception,

approach, and learning outcomes in the information search process, showed that user-education programmes and mediation with the librarian significantly influence the information-seeking behavior of students". Gould (2019) also emphasizes that information seeking behavior is influenced by students' pre-existing perceptions on their information behavior and their preferences of information sources that they use. Sundin (2006:32) also emphasizes that "in the behavioral approach the intention is to provide the user with a kind of model for how information seeking should be carried out and with the aid of which the user can tackle future information seeking".

This study also examines the perceptions of final-year students towards the user education programme at the UL. Therefore, over and above the above-mentioned behaviourist theory of learning it is also interconnected to theory of perception. Allard, Lo, Liu, Ho, Chiu, Chen, Zhou, and Jiang (2019) confirm that students' perceptions towards the user education programme depends largely on the effectiveness of the teaching methodology used from the learners' perspective, as well as other structural and pedagogical factors. Perception is defined as the process by which people use sensory information from the environment and use that information in order to interact with our environment (Williams, 2019). It involves the process by which an individual maintains contact with his or her environment. It is a "direct apprehension of the information contained within the environment at a particular point in time" (Lilley, 2000: 4). Mather (2006) maintains that for people to maintain contact with the environment, people are equipped with sensory organs such eyes, ears and noses.

Therefore, perceptual learning can be regarded as an enhanced ability to detect information that specifies affordances, activities, and characteristics (Mather, 2006). Patrick, and Oyovwe-Tinuoye (2020) emphasizes that it is mandatory for libraries to ascertain the perception and expectation of library users before they should formulate policies and design services and programmes. Therefore, the outcomes of this study are valuable for identifying different learning and training needs amongst the final year

students, including other barriers that are preventing the library user education programmes identifies by the providers of such programmes. For instance, the study by Zhou, Lo, So and Chiu (2020) sheds some light into feasible actions or interventions that academic libraries may engage in to enhance library user instruction services and to improve the information skills among the students.

## 2.3 USER EDUCATION: STRUCTURE AND CONTENT

The concept 'user education' "covers all kinds of activities that are designed to instil in library users the knowledge of library services, facilities, organisation, resources and search strategies so as to equip them with the skills to qualify them to make ideal, efficient and independent use of information resources and services that are available within a given library" (American Library Association (ALA) 1989; Akinbola 2007; Ogunmodede & Emeahara 2010). Kumar and Phil (2009) make mention of library orientation (LO) which provides a general introduction to the library, bibliographic instruction (BI) which is concerned with more subject specific and bibliographic materials and information literacy which caters for the needs of advanced and research students. Furthermore, "first-level library orientation is for freshmen, the second level is for juniors and seniors", and the third level information literacy is for all graduate students (Brown, Weingart, Johnson & Dance 2004).

Table 2.1 on the next page provides the difference between three levels of user education. Most university libraries provide a combination of all these three levels of library instructions to different user groups. The study done by Jiyane and Onyancha (2010) indicated that most university libraries provide information literacy, "known by different titles or names, and that there are common and uncommon topics offered to students in the information literacy programmes in different university libraries".

| Library orientation | Bibliographic instruction | Information literacy |
| --- | --- | --- |
| To introduce new users to the physical layout of the library. | To learn about the use of indexes and abstracts in a specific subject field. | To identify an information need / gap. |
| To introduce users to different service points where they can get help. | To be able to use the computerised library catalogue. | To identify the resources that are likely to satisfy that need or fill the gap. |
| To introduce library opening hours, library policies, overdue procedures. | To be able to use specific reference tools such as dictionaries, encyclopaedias, biographies, bibliographies, etc. | To search and locate information from those resources through the use of the computer. |
| To make the users feel at ease in using the library. | | |
| To motivate users to use the library regularly. | To be able to conduct literature searches using general databases, such as Ebscohost, Science Direct, Jstor, etc., as well as subject-specific databases. | To evaluate the information found from those resources. |
| To establish a strong working relationship between library users and the library. | | To utilise and apply that information to accomplish a goal (solve a problem or make a decision). |
| To introduce users to the library catalogue. | | |

*Table 2.1: The difference between library orientation, bibliographic instruction and information literacy*

The study conducted by Ibimina (2017) "on user education programmes in selected university libraries in Kwazulu-Natal" as well as all universities that formed part of the study indicated that all these universities operate formal user education programmes, but the concept of user education programme was perceived inversely by the different subject librarians in those universities. This implies a lack of common or standard user education programmes in different universities across the country.

The teaching methods and approaches used also differed from one university library to another. Julien and Boon (2002) indicate that the "most commonly used approach is the instructor – focused lecture where students are guided by hands-on exercises in a computer laboratory". However, this teaching method is possible only in universities where there are resources such as computer laboratories. Furthermore, some instructors have produced workbooks of a dedicated instructional time for students to complete (Julien & Boon 2002:145). There are different content structures of user education programmes in university libraries. Apart from these user education components, there are also other types of user education programmes used in different universities across the world such as one-on-one training, online library, training, course library integrated instruction, podcasts, LibGuides etc.

The study conducted by Omeluzor et al. (2017) found that classroom teaching, library orientation as well as library guides were the methods mostly used at the Federal University of Petroleum Effurum in Nigeria. Other methods that were used in this institution were "guided library tour and one-on-one mentoring"; while modern methods that have a potential to appeal to most of the students such as "Ask a Librarian", "Frequently Asked Questions", "Library Blog", "Library website" and "Text messaging" were not used in this institution. This study seeks to find which user education methods are used at the UL library. Some have been explained above as the basic components of user education such as "library orientation", "bibliographic instruction", and "information literacy".

## 2.3.1 Library orientation

Whatever the term used, educating library users can take place at many levels and through various forms. Library orientation can be regarded as one of the most basic library instruction services, and can simply be defined as "an information service designed to introduce potential library users to the facilities, organisation, and services of a particular library that is given to a group" (Katz & Fraley, 2013). Library orientation forms a huge part of the orientation programme formulated by the university for all first-year students. This includes library talk, tour of the different library units, providing each first-year student

with a library guide, exhibits, lectures, workshops, and library tour PowerPoint presentation. The orientation of the library is mostly correlated with group tours around the library in person. Other forms of library orientation include video and online virtual tours, signs, library maps and other written guides and handouts. Agyen-Gyasi (2008) sees "library orientation as both a marketing and welcoming activity". It is a way of familiarising new students with the complexities of university library facilities" (Nithyanandam, Kanniyappan, Arul Dhanakar & Rajasekar, 2006). At UL the librarians usually conduct the library orientation wherein slots are given for the librarian or library assistants to give presentations during the university-wide orientation.

Library orientation, therefore, can also be defined as "an information service to a group designed to introduce potential library users to the facilities, organisation, and services of a particular library" (Katz & Fraley, 2013). Library orientation objectives include:

- Introduction of new library users to the library's physical facilities.
- Introduction of new library users to departments/services and appropriate library staff.
- Introduction of new library users to specific services such as interlibrary loan, or e-mail reference.
- Introduction to library policies such as hours of operation, or overdue policies.
- Introduction to how the collection is organised in order to make finding materials easier.
- Motivating users to come back and use the resources.
- Communicating an atmosphere of helpfulness and friendliness .

"Library orientation is most often associated with new library users in personal group tours of the library. Video and online virtual tours, along with signage, maps of the library's layout, and other printed guides and handouts are also considered to fall under library orientation" (Rice & Gregor, 2013).

2.3.2  Bibliographic instruction

"Distinct from library orientation is library bibliographic instruction which refers to instruction in the use of libraries, with an emphasis on instruction-specific procedures,

collections and policies in a specific subject field" (American Library Association, 2006). The term emphasises "the library as defined by its physical parameters" (Bopp & Smith, 2001:179). The main objective of a typical library instruction is to introduce library users to the use of the library's online catalogue to find items on a specific subject field and enable users to use subject-specific reference materials such as indexes and abstracts on a subject field. These indexes and abstract are electronic information resources that have been converted to electronic databases (Behrens, 2000; Machet, Behrens & Olën, 2012), which users should learn how to navigate through. In today's information environment, library users should also learn how to use tools such as RefWorks, Turnitin and other new discovery tools through bibliographic instruction programme (Fawley & Krysak, 2012), on top of acquiring "skills in using the library catalogue to search books and articles and electronic databases to access articles, e-books, e-reference sources and e-newspapers" (Rantlha, 2017).

During the 1970s, the term 'bibliographic use' became commonly used. Katz and Fraley, 2013: 69) provides the following definition of bibliographic instruction:

> "Bibliographic instruction is an information service to a group, which is designed to teach library users how to locate information efficiently. The essential goals of this process are an understanding of the library's system of organisation and the ability to use selected reference materials. In addition, instruction may cover the structure of the literature and the general and specific research methodology appropriate for a discipline".

In this sense, bibliographic instruction shifts beyond just education how to make use of a specific resource to understanding how to create and use a search strategy. Users should also be in a position to operate within a variety of information environments, not only in a library affiliated to, with knowledge of the concepts of information organisation and retrieval. The Association of College and Research Libraries (ACRL) produced in 1987, the Model Statement of the objectives for Academic Bibliographic Instruction. General objectives from the Model Statement are:

- "The user understands how information is defined by experts and recognises how that knowledge can help determine the direction of his/her search for specific information.

- The user understands the importance of the organisational content, bibliographic structure, function, and use of information sources.

- The user can identify useful information from information sources or information systems.

- The user understands the way collections of information sources are physically organised and accessed."

### 2.3.3    Information literacy

Jiyane and Onyancha (2010) comment that "information literacy has become one of the core programmes offered by many library and information science schools and is universally considered as one of the effective means through which users' information skills are developed, more especially in the higher education institutions". In many cases throughout time, the concept of information literacy has acquired popularity over bibliographic instruction. To that end the American Library Association Presidential Committee on Information Literacy in its Final Report (1989:7) defined information literacy as follows:

> "To be information literate, a person must be able to recognise when information is needed and have the ability to locate, evaluate, and use effectively the needed information. Producing such a citizenry will require that schools and colleges appreciate and integrate the concept of information literacy into their learning programs and that they play a leadership role in equipping individuals and institutions to take advantage of the opportunities inherent within the information society. Ultimately, information literate people are those who have learned how to learn. They know how to learn because they know how knowledge is organised, how to find information and how to use information in such a way that others can learn from them. They are people prepared for lifelong learning, because they can always find the information needed for any task or decision at hand."

In its Information Literacy Competency Standards for Higher Education, the ACRL (2000) states:

- "The information literate student determines the nature and extent of the information needed.

- The information literate student accesses needed information effectively and efficiently.

- The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.
- The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.
- The information literate student understands many of the economic, legal and social issues surrounding the use of information and accesses and use information ethically and legally."

Appropriate information literacy exercises would include guidance on how to express an information query and come up with a search plan to retrieve the most relevant information, how to assess and evaluate information and knowledge for authority, currency and accuracy, and how to obtain information resources in a variety of formats, such as print, audio-visual and digital, not only within the library, but also outside the library environment.

2.3.4   Individual Instructions

Individual instruction as a circumstance in which the faculty and students may seek a user education librarian appointment to assist in learning about new sources and skills (Nithyanandam et al. 2006). According to Devlin and Giyane (2009) "individualised instruction is an instructional approach in which one-on-one instruction and auto-paced learning which is are based entirely on a map of progressive learning goals leading to the course / curriculum objectives". The courses that are appropriate for individualised instruction are typically those that involve the learning of skills. These include lessons on keyboarding, drafting, library user education as well as computer skills. The theory courses can be taught successfully using the one-on-one teaching approach with proper preparation and correct instructional materials. The success of individualised instruction depends exclusively on the quality of the lesson plans (Devlin & Gayane, 2009).

One-on-one reference help, which is also referred to as point of use or individualised reference help, is one of the most effective and popular methods with users but the

disadvantage is that it can tie up a staff member for a prolonged period of time with only one patron. "The addition of more electronic services such as online databases could result in additional requests for assistance in using them, while there is a drop in traditional reference statistics, as more time is spent with individual problems" (Markgraf, 2005). There are a number of benefits available to universities who choose to use the individualised method of instruction. Individualised instruction allows a student who is above or below "average" to proceed at the student's own pace for optimal learning (Avery & Ward 2010; Crane, 2017). Students who have mastered portions of a course do not have to repeat the content. Students learn the self-discipline needed to motivate themselves and to keep their progress on target. Students can check their own results on class work and pursue assistance when they need it.

Nonetheless, one-on-one teaching must be scrutinised before recommending the use of this teaching method. Not all students are going to benefit through individualised learning. Avery and Ward (2010) postulate that certain students need to have more contact with the instructor than other students and for these students it would be possible to use this type of method. Students with poor reading ability might find it difficult to go through materials that are presented primarily in writing. Proper record keeping is necessary to monitor the progress of students properly. Student progress charts are a must and need to be kept up to date and checked by the instructor. "Lesson plans must include all students' tasks while the instructor deals with one or several students. Additional pre- and post-testing is needed to ensure that students start training at the appropriate level and expectations are achieved. Student files, student directories, and shared student resources must be stored in secured storage" (Switzer, 2004).

As beneficial as individualised instruction might be, the UL does not offer it to all users because it is time-consuming and requires more personnel to be performed effectively. This is only provided upon an individual's request, mainly the new staff members, and the discretion of the subject librarian determines the manner in which to deliver the content. This would to a certain extent take time from other librarian duties if it were to be offered to students, as it would affect the services rendered by the library as a whole.

### 2.3.5    Course-related instruction

Course-related instruction involves teaching library users to acquire basic library use and information literacy skills. It usually covers practical knowledge of the access tools to available information, the library's system of organising knowledge, electronic resources, reference resources and services, library rules and regulations. It prepares individual library users to make instantaneous and constant use of information effectively by teaching them the models and techniques related to identifying, access, retrieval, evaluation, and utilisation of information, and by promoting information independence and critical thinking (Odu & Edam-Agbor, 2018). The course-related instructions "may also comprise of workbooks and credit courses with a more general coverage and not specific subject (Ormondroyd, 2003).

To further establish a workable relationship or collaboration between the academic library and the academic faculty, the library offers the content that is relation to the course. Awale-Ale (2007) advises university library skill instructors (who interact with the faculties) to provide information sources "that are relevant to the faculty needs as well as a process that works amicably with the academic faculty". The trainers concentrate mostly on the bibliographic information (Ormondroyd, 2003). With the advancements in technology, "the use of ICT has become an integral part of the course content". The disadvantage of the "introduction of the course in some libraries, was due to the misuse, mishandling and general abuse of library resources and therefore, they are not as intense as the course-integrated instructions. The majority of 'Use of Library' courses in Nigerian university libraries fall within this category: (Ogunmodede & Emeahara, 2010).

Course-related instruction does take place at the UL. However, in some instances specific subject librarian train his or her users in the form of bibliographic instruction session whereby they are taught on how to use specific resources related to their field of study. This would, for example, be the law subject librarian who will be training users on law-related databases such as Butterworths LexisNexis and HeinOnline, or a health science subject librarian who will be training his or her students on medical databases such as

Access Medicine, Access Pharmacy, and more. This narrows down the information given to students and helps them improve their search strategies and get the most relevant and most recent information for their studies.

## 2.3.6    Course-integrated instruction

Course-integrated library training or instruction can be achieved through collaboration between librarians and the academics for the purpose of planning and execution research assignments as well as in the delivery of integrated course instructions to students (Nithyanandam et al. 2006; Imo & Igbo, 2011; Barui & Barui, 2016). It is of great importance that the subject librarian has a comprehensive understanding of the outcomes of the module or course and must possess basic understanding of the subject matter. Through this association, any academic staff in the faculty, school or department can provide topics to the subject librarian in any of the disciplines for course-integrated library training or instruction on request. The key themes in the modules can include an instruction on online databases that are existing within a specific field of study. The academic staff and the subject librarians may also touch on how the online public access catalogue (OPAC) or how to go about looking for information using the internet search engines for research purposes.

The user education training would require a suitable place such as in a library computer laboratory. However, it has to be acknowledged that course-integrated instruction has some challenges that go along with this mode of instruction. Preferably, teaching librarians should be much more capable in information retrieval skills and should be able to impart those skills so as to actively use the library as a resource in their teaching. Unfortunately, Nithyanandam et al. (2006) indicate that this is not always the situation, which might be a little problematic to admit for most. There are sometimes gaps in the pedagogical expertise of librarians, because their school syllabus covers slight or no teaching skills or training. For this reason, members of the faculty or academics are always reluctant to work with subject librarians (Imo & Igbo 2011). Therefore, total integration of the library course in the curriculum is indeed desirable, but would be difficult to achieve since, "faculty do not see librarianship as an intellectual discipline equivalent

to their own" (Okoye, 2013b). Academic staff feel that "it is time-consuming and, moreover, libraries must offer a much broader selection of courses for lecturers" (Imo & Igbo, 2011). If the subject area is a fairly new one for the librarian, he/she may find it necessary to sit in on a number of the lectures and do at least some readings for the course. Colleagues at the reference desk may become resentful when the students in the course ask specifically for the librarian associated with that course.

Course-integrated instruction has its benefits to the students. The University of Illinois, Urbana-Champaign, discovered that students who are introduced to libraries using an approach of this nature did a statistically significant better job of accessing and using library resources by students, improvement of performance in class, students become more involved in research at a deeper level, and it allows more cognitive approach to research methodology (Okoye, 2013b).

Therefore, difference between the three components of user education is that "library orientation" is mostly concerned with familiarising the new users to the library in general, available services, layout and facilities of a library, while "bibliographic instruction" is only concerned with teaching library users to make the best usage of the information sources available within a specific subject field. "Bibliographic instruction" includes methods and processes in using subject indexes, computerised catalogues, reference materials and other bibliographic tools in a specific field. On the other hand, "information literacy" is more interested in educating users in recognising the need for information, to identify, locate, analyse, evaluate and use information sources retrieved. According to McAdoo (2012), "in library orientation, the emphasis is on physical location of items and services and library tours and presentation from one service point to another are common, while in bibliographic instruction, the emphasis is on ideas and concepts typically associated with books and resources such as library catalogue, indexes and abstracts". On the other hand, in the emphasis in "information literacy" is on identifying resources likely to meet the information need, locating and searching the needed information from the resources identified, evaluating information sources to determine the most relevant and using information to achieve a specific goal.

"Course integrated instruction" is offered at the UL for a limited number of faculties – Science and Agriculture as well as Humanities. Within those faculties, there are degrees / modules that have embedded user education in the form of information literacy into the curriculum. This was done through collaboration between the academic faculties and the library for the efficient rollout of this programme. Ahenkorah-Marfo and Teye (2011) indicates that "the goals of library user education have expanded from teaching tools to teaching concepts and from library instruction to information literacy and lifelong learning". Therefore, the structure and content covered in user education differ from library to library. Omeluzor et al. (2017) remark that librarians have developed various methods for teaching library instruction. However, Ahenkorah-Marfo and Teye (2011) reckon that the central idea behind user education has been to "teach the students the search strategy, because it provides a conceptual framework for teaching students research techniques. Librarians now recognise the importance of teaching critical thinking skills to enable the students to evaluate and select relevant information and use it effectively to write their assignments". However, it is not known if this approach is also embraced in user education programmes provided by the UL library. It is for this reason that one of the objectives of this study will be to establish the structure and content of the UL library user education programmes.

Academic librarians are becoming more interested with the structure and the quality of user education programmes that they are offering, resulting from the pressure exerted upon them by the university or parent institutional management (Okoye, 2013b). Academic librarians are expected to advocate for the existence of library services and resources that they offer, or else they are likely to forfeit funding for their services. It is for this reason that the evaluation of library user education in academic libraries is of utmost important. The discussion of literature on user education in academic libraries is somewhat confirmatory, when coming to their structure and content, without looking into evaluating these user education programmes. It is for this reason that this study sought to evaluate the user education programmes and the university of Limpopo library from the perspectives of both the recipients and the providers.

## 2.4    EVALUATION OF USER EDUCATION PROGRAMMES

Lwehabura (1999) and Bhatti (2010) state that evaluation of user education programmes is an essential part of any educational programme and is a tool that helps to determine the effectiveness of an activity. Through evaluation, a user education programme can be modified, upgraded and marketed. Therefore, every library user education programme should be evaluated or assessed for different reasons. McAdoo (2012) states that although the specific reasons for assessing library user education vary, data collected from such evaluations and assessments are typically used to suggest changes to the instructor, the course or the programme as a whole. The fundamental purpose of assessment of user education programmes in academic libraries is to produce information that can be used in rational decision-making; (Moyane, Dube, & Hoskins, 2015). Decisions about whether to continue or terminate a given programme, about modifications of the current programme or about the use of specific teaching methods to achieve a particular goal are all the end-result of user education programme evaluation exercises. Ahenkorah-Marfo and Teye (2011) mention that an evaluation of library instruction programmes has two purposes. Firstly, to determine how well the programme's goals and objectives were met and, secondly, to suggest changes in methods of instruction. Knight (2002:16) affirms, "It is important to view assessment programs not as end in itself but also as a significant source of information that foster feedback for change". Therefore, among some of the reasons for evaluating or reviewing user education programmes are:

- to find out how effective the user education programme has been
- to determine how well the programme was able to achieve its outcomes
- to improve the quality of learning in future programmes
- to provide feedback to learners
- to justify the time, costs and efforts invested in the programme.

Therefore, several studies have been conducted in relation to the evaluation or assessment of user education programmes for different purposes. Klavano and Kulleseid (1995) examined "the impact of institutional evaluation on the bibliographic instruction programmes and its evolution into information literacy programme-responsive changes in students' demographics, curriculum content, assessment methods and communication technologies". The paper by Judd, Tims, Farrow and Periat (2004) also attempted "to evaluate the library instruction component in terms of its goals, content, format and effectiveness in instruction, and to access the outcome in terms of student learning".

The study by Hoskins et al. (2015) looked into the evaluation of "user education programmes for postgraduate students in the School of Management, Information Technology and Governance at the University of KwaZulu-Natal". The findings of the study revealed that, "although there are pockets of good practice in user education, there is a need to reconsider the content, the mode, the scope, presentation strategies and overall relevance and suitability of user education programmes in line with user needs" (Hoskins et al. 2015:37). The study also showed that "issues of appropriateness, effectiveness and efficiency of instructional methods as well as pedagogical matters need to be considered". The above-mentioned studies revealed that when evaluating the user education programme, there are some essential elements that need to be evaluated, namely the content, the outcomes, the process, changes in attitude and the challenges encountered in the programme.

McAdoo (2012) distinguishes between two types of evaluations, namely formal assessments and informal assessments. Informal assessment involves a stage where the instructor informally makes follow-ups with the students and the academic staff member who sends the students immediately after the session or the programme. McAdoo (2012) also suggests that this process "can generate useful information, especially for modifying existing lessons and developing new content and classes, and also that informal feedback may supply insights into topics and issues that more formal assessments do not address".

Furthermore, some academics and staff members may not feel comfortable with sharing certain information during a formal class environment and may feel comfortable with sharing such information during a more personal, one-on-one follow-up session after class. A formal assessment of user education programmes in academic libraries, on the other hand, is also known as summative assessment (Kanjee & Mthembu, 2015). In this type of evaluation, students are generally assessed in the form of quiz, test, or writing a paper, which assessment is based on how well the student is able to perform or apply the aspects that were covered in the user education programmes.

Knight (2002:16) shows that librarians realised "some success with summative assessment methods such as tests and quizzes because they provide information about the student's library skills before and after a sequence of library instruction activities". As reported by Beile (2003), students demonstrated an improved attitude towards the library and library research skills improvement after attending and participating a course-integrated, outcome-focused library instruction. However, Beile (2003:273) cautions that "there are several barriers to formal evaluation of library user instructions, among them, that librarians perceive formal evaluation as being too complex, too time consuming and as one more responsibility on an already excessive workload". However, McAdoo (2012) is in favour "of formal evaluation of user education programmes" because it is systematic and it is not difficult to draw conclusions from the data or information obtained from it. The steps that one is required to follow when conducting a formal evaluation of the programmes are identifying the purpose of the evaluation, deciding what is to be evaluated, determining what data to collect and identifying the appropriate tool to collect data.

Formal and informal evaluation of user education programmes, however, have failed to provide information about their adequacy from the perspective of the beneficiaries of the programme (Singh 2010). Evaluation of effectiveness of user education programme is the evaluation of user satisfaction, which should determine how well the programme has satisfied the needs of users (Titi et al. 2016:255). Library users should, therefore, also be afforded a chance to provide criticism about the adequacy of the user education

programme (American Library Association, 2006). Feedback is very important in that it will also enable the user education providers to make a decision of whether to carry on with the programme or discontinue with it. Because of the feedback, the programme can be revised or improved to provide better results than the previous one. Bhatti (2010) emphasises that feedback and evaluation through self-evaluation is also important in improving the user education programmes. Therefore, this study seeks to evaluate the adequacy of user education programmes at the UL through feedback from the library users who attended the programme and librarians who provide these user education programmes.

## 2.5    ATTITUDES OF STUDENTS TOWARDS THE USER EDUCATION PROGRAMMES

Wang (2000) shows that research on users' opinions of library instruction were emphasised in the last three to four decades and many positive results were obtained. Therefore, a study of students' opinions, attitudes and perceptions has also been identified as a means for assessing instructional needs for students and as a method for evaluating the affective and attitudinal changes brought about by the instruction. Most of the evaluation methods used today are designed to determine students' knowledge and skills in searching information, without looking into their opinions of the way in which user education programmes are structured and presented. Wang and Frank (2002) also agrees that, in recently or in recent times, less focus has been directed towards the users' attitude towards library instruction. Therefore, this study also looks into students' attitude towards user education programmes with a view to future improvement.

Molepo (2018) also addresses that few assumptions can be made about students entering university, when given the range of backgrounds these students come from. These backgrounds, according to Molepo (2018) are as follows:

- They are directly from high school and equipped with a range of library skills
- They are from non-English speaking background with varied library experiences

- They include mature students, often with basic library skills
- They are mature students new to an academic environment

Another challenge besides the "globally competitive environment" where parent institutions of the library operate, there are major shifts experienced by institutions in terms of the students' approach to information, researching and the utilisation of technology. This is mostly caused by the fact that many of the students belong to the so-called "Millennial Generation" or "Gen Y" who were born between 1978 and 1994 (Altinbasak-Farina & Guleryuz-Turkel, 2015). Today, electronic information resources (EIR) have become an essential part of the library's collections and services; therefore, a number of relevant studies have been done on attitudes towards user education in the context of using electronic resources in the academic environment (Punchihewa, Kiriella, Kumara, Kodikara & Ruvini, 2016; Liu, Allard, Lo, Zhou Jiang & Itsumura, 2019). Such studies have addressed the two concepts of attitude and electronic resources. The attitude of undergraduate students towards user education can be better reflected using their attitudes towards the library services as the programmes are used to educate them about the services offered by the library and ways in which one can access them (Abraham & Ozioko, 2015).

Alkhanak and Azmi (2011) define attitude in general as the individuals' responses in preferential ways based on their beliefs. The precise definition related to this study was defined by Ukachi, Nwachukwu and Onuoha (2014), who define it as the students' reactions to using electronic resources based on their beliefs, their assumptions, and people's opinions. Moreover, Alkhanak and Azmi (2011) describe student attitude in the academic environment as the electronic resources evaluation in positive or negative ways that influence the student's learning process. Thus, the attitude towards the use of EIR is simply the tendency that the student takes, positively or negatively, for using the EIR of the library.

However, Fishbein and Ajzen (1975) state that many concepts could be categorised under the concept of attitude, such as opinion, liking, and satisfaction. In addition to

reviews and studies that addressed attitude and electronic information concepts, there are studies that have investigated the relationship between attitude of the students, faculty, researchers, and librarians towards using the electronic resources, information services, and the library. Ukachi et al. (2014) conducted a study that investigated students' attitude towards user education and electronic resources. The study indicated that EIR were under-utilised in general because of the negative attitude of the students towards using the libraries' electronic resources. Wu and Chen (2012) conducted a study to obtain a clear understanding of how graduate students perceive and manage electronic information resources. They reached a conclusion that students preferred to use the library website for relevant curriculum-based documents, and then they use the internet. Furthermore, the greatest problems that students are faced with in the process of searching for information are the incapability to retrieve relevant materials, confusion felt due to the numerous methods of database searching, and slow internet connections, especially for those off campus using the library proxy.

"For those with below-proficient skills, this assumption heightens their sense that they are operating with higher than average abilities and that others (including teachers and librarians) have nothing to offer them in this area of their lives" (Gross & Latham 2011). A question was posed to the students in an effort to determine whether students have a positive attitude towards user education programmes. The majority of the students regarded user education programmes as important to their education. "The positive response meant that, in general, students recognise that user education can improve their library use, which, in turn, could have a positive effect on their studies" (Hoskins et al. 2015:34). "If, by their own admission, students recognise the value of user education, it can be assumed that they realise the relationship or interconnectedness between library use and success in academia". "The notion of the correlation between the two variables is attested and advocated by various authors". (Bhatti, 2010; Aderibigbe & Ajiyiboye, 2011).

## 2.6 IMPACT OF USER EDUCATION ON STUDENTS' LIBRARY USAGE PATTERNS

Closely related to the theoretical framework on which this study is based, is the fact that a user who possesses skills and competencies in locating materials from the library on his / her own is more likely to use the library more frequently than those who don't have these skills and competencies (Waldman 2003). This is simply because he/she is not getting any frustration by being unable to locate the information that he/she is looking for. It is important that librarians offering library user education should always study the impact of user education on the students who attended it. "It is believed that improving users' knowledge of their libraries' collections and services could be a motivating factor for more usage and more demands on the library" (Waldman 2003). Lwehabura (1999) and Bhatti (2010) also remark that "user education aims at changing an individual's experience at and behaviour towards the use of the library and other information sources", while Maduako and Maduako (2013) emphasises that "there is a positive relationship between user education and library use". Formative and summative evaluations have therefore been used as measures of the impact of user education programmes. In this study opinion, the survey regarding library usage patterns after undergoing the user education programmes is also used to examine the extent to which the user training improved students' use of the library and its resources.

Folorunso and Njoku (2016) investigated "the influence of library environment and user education on undergraduates' use of the library at the University of Ibadan in Nigeria". The study revealed that both environment in which the library is operating and user education programmes contributed to the use of the library among undergraduate students. Therefore, user education has the potential "to encourage and transform learners into independent, self-directed and lifelong learners" (Folorunso & Njoku 2016:290). The study conducted by Brunton (2005) on "Brisbane College of Theology students also showed that user education programmes significantly influence the information-seeking behaviour of students".

According to Odu and Edam-Agbor (2018), library user pattern "is a reflection of the attitude and the approaches adopted in the search for information in a library. It is a measure of the level of importance attached to the library by its users". There are users who perceived that the library is the ultimate destination in the search for information and therefore they ensure compliance with rules and regulations guiding users' conduct while in the library. This category of users would politely approach a staff for assistance where necessary in order to find the desired information. There is another category of users who showed good knowledge of information handling skills. This category of users can independently access and retrieve information from the library. There are also users who display delinquencies while using the library such as mutilation of library resources, stealing, and writing and painting on the pages of books and journals. Each of these library use patterns is a reflection of the users' orientation and information-handling skills. That explains the need to ensure efficiency and effectiveness in the training provided during the library use instruction programme (Odu & Edam-Agbor, 2018).

## 2.7 IMPEDIMENTS TO USER EDUCATION

Omeluzor et al. (2017) feel that there are "several challenges have been identified in research as factors militating user education programmes in academic libraries". Among the impediments are low turnout at user education programmes by students, absence of interest shown on the part of the academics, non-expository of the programme, insufficient time allocated for library instruction, and non-utilisation of information technology in the instruction. Lwehabura (1999) mentions "insufficient time spent on introducing library resources, bad timing of library orientation and large numbers of students as some of the challenges working against the provision of user education programmes in academic libraries". Perhaps it is for this reason that "integration of library instruction into the academic curriculum has been identified as the best possible solution for everyone to attend this important programme" (Moselen & Wang, 2014; Zhang, Goodman & Xie, 2015; Dubazana & Karlsson, 2006). These studies suggest that for user education programmes to be effective and not just seen as optional, they need to be integrated into the curriculum. Other problems relate to "a lack of librarians' teaching skills

and information overload, where students are overwhelmed with high volumes of information within a short period of time" (Pant & Negi, 2015). It is surprising that "with such irrefutable evidence supporting the need for information literacy skills, such programmes, both non-curricular and curricular, are still not compulsory in institutions of higher learning" (Neerputh, 2014).

Henard and Roseveare (2012) feel that:

> "Part of the reasoning behind this is that it requires an attitudinal change on the part of all stakeholders in higher education, in particular administration, academics, students and even librarians. However, it is evident that many information literacy courses will continue to be offered outside the formal curricula and therefore it is even more vital to ensure a high-quality product so that students are attracted to it and gain these important skills in a manner which they find stimulating and which enable them to quickly see the relevance of these skills to ensuring that they perform better than their fellow students who do not take such programmes".

One might wonder if some librarians have a problem with transferring these skills which they have in high order, fearing that they will be seen as redundant if they do so (Donnelly, Harvey and O'Rourke, 2010). The reluctance of most lecturers to recognise that librarians is a huge barrier faced by librarians. Molepo and Bopape (2018) note that "lack of evidence from the librarians to their activism on the importance of user education programmes such as Information Literacy education might be the main reason for the misperception of the librarians' role in educating students. In addition, there is a need for libraries to develop or access spaces, which can be suitable for imparting these skills". There is no doubt that if the librarians' collaborative relationships can be established with the academic staff, information literacy programmes are more likely to be guaranteed the indispensable sustenance to become an animated component part of the education process. For students, Rodriguez (2018) sees "the challenge as being to turn away from being passive and dependent learners and become active and independent learners who are able to bring to the classroom information they have critically selected and analysed." Most importantly, Rodriquez (2018) urges active partnerships in "a genuine learning community." However, the challenges that academic librarians are faced with when designing and offering user education programmes to the so-called millennials who are always online with each other through the interment and who start all their searches using

search engines such as Google cannot be underestimated (The Millennials, 2010). The other significant challenge is the perception of students of their own research skills, or self-assessment. Gross and Latham (2011) found that "the lower the skill level of the students, the more they overestimated their skills. First-year college students who took part in research stated that finding information is something that anyone can do and that the preferred methods are technological and personal, as the main sources of information are Internet searches and asking people".

2.8    SUMMARY

The chapter looked at a number of important issues. Apart from looking at the definition and significance of user education, the chapter endeavoured to explore and discuss the structure of user education programmes as well as to present an overview of the content of the user education curricula. The literature review revealed different structures and content of user education programmes such as "library orientation", "bibliographic instruction", "information literacy", individual instructions, course-related and integrated instructions. It was highlighted that library user education is divided into three levels, namely library orientation, bibliographic instruction and information literacy. The differences between the three levels of user education have been discussed. One-on-one instruction and course-related library instructions were also discussed. The next chapter finds out which user education programmes are used at the UL library.

This chapter also discussed in detail the controversy surrounding the attitudes of students towards the adequacy user education programmes. It was revealed through literature review that attitudes of users towards library user education are largely influenced by the background of these students and that most students regard user education as an integral part of their learning. Last but not least, the issue of impediments or challenges to user education was also discussed, and it was realised that the challenges encountered in providing library user education programmes relate to the reluctance of both academic staff and students to attend these programmes. The next chapter serves as an attempt to collect data in order to relate it to the literature review.

**CHAPTER THREE**
**RESEARCH METHODOLOGY**

## 3.1  INTRODUCTION

The previous chapter represented a critical discussion of literature related to the topic. This chapter presents the research methodology that was adopted in this study for the purpose of collecting data, in order to achieve the research objectives for this study. Several definitions of research methodology exist, as well as approaches and methods for collecting data for the purpose of conducting academic research. While Walter (2013:10) provides a definition of methodology "as the worldview or the lens through which the research is designed and conducted", Neuman (2011:2) defines research methodology as the way for the understanding of the entire process of research. Zulu, Ngoepe and Saurombe (2017) opines that research methodology is of vital importance in that it makes it possible for researcher to determine what structure should be followed or adopted to conduct a particular study and which techniques should be adopted for the purpose of collecting data for the study.

This chapter commences by looking into the differences between research paradigms and then justify for the choice of one research paradigm over the other. In addition, research is divided into three research approaches, namely, "qualitative", "quantitative" and "mixed methods" research. The justification of a choice of a particular research methodology or orientation over the other methods are also discussed in this chapter. Furthermore, this chapter also focusses its attention on the research design, data collection methods, sampling methods or techniques and data analysis methods which this study has adopted. Reasons for adopting particular methods and techniques over the others are also provided.

## 3.2  RESEARCH PARADIGM

It has been noted by Kumar (2011:5) that "research is undertaken within a framework of set rules, philosophy, principles and formal conditions which ground and guide scientific inquiry in order to organise and increase the researchers' knowledge about the chosen phenomenon". This is referred to as a paradigm. The concept research paradigm is used

in this study to refer to a philosophical principle that answers important questions and analyse basic assumptions about the phenomenon being studied or researched (Neuman, 2012). It is used to explain a combination of beliefs which prescribe what should be studied and how results of a particular phenomenon being studied should be obtained and interpreted (Bryman, 2012). Two main paradigms in research are identified, namely the positivism and interpretivism research paradigms.

The positivist research paradigm believes in tangible, social reality which exists independently and naturally. The positivist researcher is influenced by concepts, theories and literature (Hussain, Elyas & Nasseef, 2013). Maree (2016: 23) notes that "positivism postulates that only objective, observable facts can be the basis of science in the positivist research paradigm". This entails that positivism take things as they are, which are based on laws of nature, for example, force of gravity (Walliman, 2017). On the other hand, interpretivism believes in numerous realities that cannot exist outside the social context that has created them (Grix, 2010). Furthermore, interpretivism focusses on the connotation that people attach to their familiarities and experiences. In the interpretivism paradigm subjective meanings are crucial to achieving understanding and meaning (Maree 2016). The interpretivist research paradigm is also considered as an ideographic research, thus is, the study of specific cases, phenomenon or events (Klein & Myers, 1999; Richardson, 2012). However, for the study to achieve all the stated objectives, the researcher decided to opt for a combination of both positivist and interpretivist paradigms, which results in application of a pragmatic research paradigm. Pragmatism research paradigm is based on the notion that researchers should use a methodological approach which works best for a particular research problem and is always associated with the use of multiple research methods (Kaushik & Walsh, 2019).

## 3.3. RESEARCH METHODOLOGY

Out of these research paradigms, two research orientations or approaches (methodologies) emerge, namely, qualitative and quantitative research designs. A combination of the research methods in both qualitative and quantitative results in mixed-methods research approach. While qualitative research is associated with interpretivism,

quantitative research is associated with positivist; and the mixed-research methods are associated with pragmatist research paradigm.  These methodologies or research orientations are considered as "plans and procedures for research that outline the steps from broad assumptions to detailed methods of data collection, analysis and interpretation" (Creswell 2014:3). Thus, Creswell (2013) notes the quantitative, qualitative and mixed methods as the three methodologies that exist in research, which are explained below:

3.3.1. Quantitative research methodology

Quantitative research is a systematic process of using numerical data from a selected population in order to generalise the findings to the entire population. In quantitative research, focus is on a particular aspect of behaviour and quantified in numbers, which entails that quantitative research uses statistics to describe, predict or explain phenomena. Each occurrence of behaviour is counted in statistical terms to determine its overall behaviour. The rating scale is often used to evaluate behaviour in terms of specific dimensions. Bless et al (2013) confirms that in quantitative research numbers, statistics, measurement are the words that are dominating and used to describe quantitative research. Struwig and Stead (2001:7) also assert that "quantitative research requires that data be collected and expressed in numbers", while Leedy and Ormrod (2010:179) describe quantitative research as "the approach that yields quantitative information that can be summarised through statistical analysis". Gorman and Clayton (2005:3) also opine that "quantitative researchers view the world as a collection of observable events and facts that can be measured".

3.3.2. Qualitative research methodology

Qualitative research on the other hand, is a method of inquiry which its aim is to gather an in-depth understanding of human behaviour and the reasons behind that behaviour. Qualitative research focuses its attention on the phenomena that occur in their natural settings, that is, in their real world and it includes studying those phenomena in all their complexity" (Leedy & Ormrod, 2010:135). It is based on the premise that the issue that is being studied consists of several dimensions and layers, hence it attempts to reveal the

issue being studied in its multidimensional forms. Maree (2016: 53) states that the features that distinguish qualitative research approach from the quantitative are that "it relies on words, rather than numbers, it employs meaning-based, rather than statistical forms of data analysis, and that it is naturalistic". Leedy and Ormrod (2010:136 -137) further notes that "qualitative research serves one or more of the following purposes":

- "Description – revealing the nature of certain situations, settings, processes, relationships, systems or people.

- Interpretation – gaining insights into a particular phenomenon, developing new concepts or theoretical perspectives about the phenomenon and/or discovering problems that exist within the phenomenon.

- Verification – allowing the researcher to test the validity of certain assumptions, claims, theories, or generalisations in real-world contexts.

- Evaluation – providing a means through which a researcher can judge the effectiveness of particular policies, practices or innovations."

### 3.3.3. Mixed-methods research methodology

The mixed-method research methodology entails a combination of the quantitative and qualitative research methods. It is defined as "a research methodology that focuses on collecting, analysing and mixing both quantitative and qualitative data collection methods in a single series of studies" (Creswell & Plano-Clark, 2011:5). Similarly, Punch (2013) defines the mixed-method research methodology as an investigation bringing together qualitative data (and methods) and quantitative data (and methods). This entails that this research approach employs both quantitative and qualitative research designs and data collection methods simultaneously to create a research outcome stronger than either method individually. "Its dominant foundation and principle is based on the fact that the combination of quantitative and qualitative approaches in a single study unleashes a better understanding of research problems than a single research approach" (Azorin & Cameron, 2010). A mixed-method research methodology is useful to capture what is regarded as the paramount of both quantitative and qualitative research designs and methods (Creswell, 2014).

## 3.3. CHOICE OF RESEARCH METHODOLOGY

After identifying the broader research paradigms and research methodologies, the next step was to decide on the adoption of a suitable research methodology or approach for this study. This study used both qualitative and quantitative research approaches to solicit information about the structure and content of UL library user education programmes from the subject librarians, and to discover the perceptions of final-year students and subject librarians towards user education programmes at the UL. A combination of both qualitative and quantitative research methods provides the researcher with the possibility to address issues from a large number of perspectives, which in turn enriches and enhances the research findings" (Ngulube, Mokwatlo & Ndwandwe, 2009).

In this study qualitative and quantitative research approaches are both chosen for different purposes and they are directed to different population groups or participants. Both research approaches were chosen because they complement or supplement each other in realising the aim of the investigation. For instance, soliciting information about the structure and content of user education programmes from subject librarians helped in determining the perceptions and attitudes of students and subject librarians towards the structure and content of those user education programmes. This is seen as complementary because, with qualitative research, the researcher established the structure and content of user education programmes at the UL, as well as the challenges encountered in offering user education programmes at the UL, while with quantitative research methodology, the researcher was able to measure the perceptions and attitudes of students towards the structure of content of those user education programmes.

## 3.4    RESEARCH DESIGN

Different researchers define research design similarly but using different words. Kumar (2011) indicates that a "research design is a written plan for a study". This entails that the research design outlines the intensions of the researcher – the purpose and its significance, including a step-by-step plan for conducting the study. A research design is also defined as "a blueprint for conducting a study with maximum control over factors that

may interfere with the validity of the findings" (Burns & Grove, 2011:195). Polit, Beck and Hungler (2001:167) also use different words by saying that "a research design is the researcher's overall for answering the research question or testing the research hypothesis".

Each research methodology or approach, that is qualitative and quantitative has its own research designs, of which the details are provided below:

### 3.4.1  Quantitative research designs

In quantitative research methodology, there are four main types of research designs, namely: descriptive, correlational, quasi-experimental and experimental research designs. The difference between the four types primarily relates to the extent to which the investigator strategizes for the control of the variables in the experiment (Pickard, 2013). The following is a brief description of each type of quantitative research designs, out of which the researcher will be able to make a choice regarding which research design(s) is or are appropriate for the study.

A descriptive research design attempts to pronounce the present situation of a variable or phenomenon. The investigator does not start with any supposition, but naturally changes after the data are collected. According to Burns and Grove (2011:201), the descriptive research design "is designed to provide a picture of a situation as it naturally happens. It may be used to justify current practice and make judgement and also to develop theories".

A correlational design "explores the relationship between variables using statistical analyses. Leedy and Omrod (2010: 183) state that correlational study design "examines the extent to differences in one characteristics or variable are related to differences in one or more other characteristics and variables. This correlation exists when one variable increases, another variable either decreases or increases." In most studies, variables are determined by asking the participants about their demographic characteristics such as age, gender, level of education, occupation etc.

Sometimes referred to as causal-comparative design "a quasi-experimental design seeks to establish a cause-effect relationship between two or more variables" (Salkind, 2010b). "The researcher does not assign groups and does not manipulate the independent variable. Control groups are identified and exposed to the variable. Results are compared with results from groups not exposed to the variable" (Todd 2019).

"Experimental research designs, often called true experimentation, use the scientific method to establish cause-effect relationship among a group of variables in a research study. Researchers make an effort to control all variables, except the one being manipulated (the independent variable). The effects of the independent variable on the dependent variable are collected and analysed for a relationship" (Koksal, 2013).

For the quantitative purpose of this study, descriptive survey research design was adopted. Check and Schutt (2012:160) define descriptive survey research design as the gathering of data and information from selected individuals through their responses to questions. Burns and Grove (2011:201) state that "descriptive survey research is designed to provide a picture of a situation as it naturally happens. It may be used to justify current practice and make judgement and also to develop theories". Babbie (2011) maintains that descriptive research design should be the dominant method when studying or measuring attitudes or perceptions in a larger population. This study first describes the structure and content of user education programmes in university libraries and then determine the programmes that are adopted by the UL, with the purpose of measuring their effectiveness or adequacy from the perspectives of the beneficiaries, that is, students. This study also seeks to identify and describe the challenges that deliverers of user education programmes, that is librarians, at UL experience. Leedy and Ormrod (2010: 187) acknowledge that "some scholars use the concept survey research to refer to any form of descriptive and quantitative research". This study in a more restricted sense, also uses survey research in that it sought to solicit information about the attitudes and experiences of final year students and subject librarians on user education programmes at UL library.

### 3.4.2. Qualitative research design

A popular and helpful categorisation separates qualitative research designs and methods into five groups, namely, "case studies", "ethnography", "phenomenology", "grounded theory" and "content analysis" (Creswell et al. 2012; Leedy & Ormrod 2010). A case study "is a descriptive, exploratory or explanatory analysis of a person, group, programme or event" (Creswell et al 2012). Its purpose is to understand a single research object or subject in great depth. It focuses on "one case or a few cases within its or their natural setting" (Maree 2016). Case studies "are analyses of persons, events, decisions, periods, projects, programmes, policies, institutions, or other systems that are studied holistically by one or more method" (Bredillet, 2016). This entails that "a case study is when a particular individual, programme or event is studied in depth for a defined period of time, where a researcher focuses on a single case or phenomenon" (Harrison et al. 2017).

Unlike in a case study, "in ethnography, the researcher looks at the entire group that shares a common culture" (Reeves, Peller, Goldman & Kitto, 2013). Its purpose is to understand how behaviours mirror the ethos and values of a particular group of people, where the investigator studies a particular group of people in their natural environment for a particular period of time. Swidler and Watkins (2009) note that ethnographic studies focus on everyday behaviour of people in a group, for example, their rituals, their language, interactions, and so on. The intent of ethnographic study is to understand a particular socio-cultural group and in ethnography uses site fieldwork where the researcher should engage with that particular group.

Phenomenology "refers to a person' perception of the meaning of an event" (Pickard 2013). Its purpose is to understand an experience from the participants' point of view. It is a type of the study that makes an attempt to comprehend the people's insights, viewpoints, opinions, experiences or their understanding of a specific condition or programme. In most cases it would be a researcher experiences a particular situation and wants to understand the experiences of others regarding that situation. Pickard (2013:268) maintains that "phenomenological research design is concerned with discovering the underlying structure of experiences, as it seeks to discover the detailed

understanding of the phenomenon under investigation as it is experienced by the individual".

Grounded theory attempts "to derive a theory from data collected in a natural setting and looks at a theory that has been established and then investigates how a particular behaviour is based on that particular theory" (Gray, 2009). With grounded theory it is meant that the behaviour that is established in a particular study is derived or grounded from a particular theory. Grounded theory "therefore focuses on the process related to a particular purpose, with the ultimate aim of developing a theory about that process" (Glaser & Strauss, 2009). For instance, if one wants to study the use of technology by students, one should also look at the studies that researched the interaction between people and technology.

For the purpose of the quantitative dimension of this study, the phenomenological research design is adopted, because it focuses on the experiences from the participants' perspective, that is, students who attended user education programmes at the UL and the subject librarians who deliver user education programmes at UL. This study also focuses the perceptions of students who are the beneficiaries of user education programmes and the problems experienced by subject librarians in delivering user education programmes at the UL library. This research design is adopted because it seeks to discover an in-depth understanding of the phenomenon under investigation as it is experienced by the different types of participants. In this study, the final year students who must reveal their perspectives and the subject librarians, who must reveal the challenges that they encounter or experience in offering user education programmes at UL. The strength of phenomenological study design "lies in the fact that it seeks to find the universal nature of an experience and can provide a deeper understanding of the human experiences examined" (Pietkiewicks & Smith, 2012).

Therefore, this research adopts two distinct research design, referred to as concurrent research design, whereby both quantitative and quantitative research designs methods are used to collect data in a single study, with the purpose of triangulating the results. In

this study the results obtained from the questionnaires are validated by the results obtained from the interviews and contents analysis of websites, that are explained below.

## 3.5   DATA COLLECTION METHODS

Various research methods or techniques of data collection are present in research literature, although they are referred to differently by different researchers. For example, what Pickard (2013) understands and explains as a research method, Leedy and Ormrod (2010) understand and explain it as a research design. This study adopted both research methods used in both research methodologies, that is, in quantitative research methodology in the form of a questionnaire and content analysis of UL library website. and the qualitative research methodology, in the form of semi- structured interviews. Simply put, this study used a questionnaire and interviews as methods for collecting data. Contents analysis of the UL library website was also used as a data collection method for the purpose of triangulation. The data collection methods used in this study are discussed below.

### 3.5.1   Interviews

Maree (2016: 92-93) defines an interview as "a two-way conversation between the interviewer and the interviewee, in which the interviewer asks the interviewee questions for the purpose of collecting data in a meaningful way" It is "a data collection method which enables the interviewer to solicit information, feelings and opinions from the interviewee using questions in a process of interactive dialogue" (Matthews & Ross, 2010:476). Interview questions are either structured or unstructured and semi-structured, which Burns and Grove, 2011:747) classify into in-depth or unstructured interviews, organised or structured interviews, as well as semi-structured interviews.

Boyce and Neale (2006: 77) describe in-depth or unstructured interviewing that "involves conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, programme, or situation". For example, the interviewees may be asked questions about their experiences, thoughts, perceptions and

expectations related to operations, processes, effectiveness, and outcomes of a particular programme. The primary advantage of in-depth interviews in that they provide much more detailed information than what is available through other data collection methods, such as surveys (Burns & Grove, 2011). They also provide a more relaxed atmosphere in for a researcher to collect information, as people may feel more comfortable having a conversation with the investigator about their opinions as opposed to filling out a survey. However, among some of the few limitations and pitfalls of in-depth interviews is that they are prone to prejudice because interviewees might want to 'prove' something or express their own deep feelings about a particular phenomenon under investigation. The responses from the participants could also be biased because of their stake in the investigated programme or numerous other reasons. Boyce and Neale (2006: 3) also observe that "in-depth interviews can be time-consuming as an evaluation activity considering the time it takes for interviews to be conducted, transcribed and analysed". The time required for recording and breakdown or analysis of this comprehensive information must be taken into consideration in planning the researcher's data collection efforts. Once in-depth interviews are performed there is usually no generalisation of the findings. Nonetheless, in-depth interviews offer valuable information for research projects, especially when complementing other data collection methods. "It is important to note that the general rule on sample size for interviews is that when the same stories, themes, issues, and topics are emerging from the interviewees, a sufficient sample size has been reached" (Boyce & Neale, 2006).

A structured or planed interview, also known as a formal interview can be likened to a job interview (Zojceka, 2018). Kumar (2011:145), comment that in a structured interview the researcher asks a set of prearranged questions to the interviewee, using similar expressions and order of questions as specified in the interview schedule. The questions are asked in a standardised order by which interviewer must not deviate from the interview schedule or probe beyond the answers received. These are based on structured, closed-ended questions. Structured interviews are easy to replicate as a fixed set of closed questions are used, which are easy to quantify". McLoed (2014) maintains that structured interviews are by nature fast to be carried out. This entails that an interview session may

take place within a short period of time. Therefore, with standardised interviews, a large scale of people can participate, which may result in the being representative and being generalisable to a larger population. The problem with structured interviews is that they are not flexible. This means new questions cannot be asked impromptu (i.e. during the interview) as an interview schedule must be followed. The answers from structured interviews lack details as only closed-ended questions are asked that generate quantitative data. This means a research will not know why a person behaves in a certain way".

Semi-structured interviews, on the other hand, are the interviews with a mixture of both structured and unstructured elements of the interviews. Semi-structured interviews are more flexible than structured interviews, but more focused than unstructured interviews because the interviewer is still free to pursue matters as the situation dictates, just as in unstructured interviews. Semi-structured interviews are guided, concentrated, focused and open-ended communication of events that are co-created by both the interviewer and the interviewee and occur outside the stream of everyday life" (Tharenou, Saks & Moore, 2007:103). Semi-structured interviews put a research in a position to follow up on unclear ideas, probe responses and investigate motive and feelings, which a questionnaire cannot do". Such inquisitiveness was significant as it helped in clarifying matters where responses were not clearer to the researcher during the interview sessions with subject librarians. In addition, semi-structured interviews were deemed appropriate because they allowed the interview process to be repeated with different respondents and standardised questions.

Interviews were used in this study to collect qualitative data from the subject librarians. These were appropriate data collection instrument in this study it assisted the researcher to solicit the opinions of the research participants about the structure and content of the UL library user education programmes and the challenges they experience in delivering such programmes. The study further used semi-structured interviews because there was a predetermined number of questions followed by all the participants. The interview schedule is attached as Appendix B. The interviewer, however, enabled interviewees to

address certain aspects considered relevant to the queries, considering that the aim to use interviews in this study was to provide qualitative data.

## 3.5.2. Questionnaire

Bless et al (2013) define a questionnaire as a standardised used tool for collection of data in a study with a standardised series of questions relating to the research topic to be responded to in writing by participants. A questionnaire is a probing procedure comprising of a succession of questions and other prompts for the purpose of collecting data and systematically gathering information from respondents. A questionnaire is composed of a quantity of questions that the respondents have to answer in a set format. The questionnaire as a data collection instrument also has its own advantages and disadvantages. Both advantages and disadvantages are depicted in table 3.1 below.

Table 3.1. Advantages and disadvantages of questionnaires

| ADVANTAGES | DISADVANTAGES |
|---|---|
| Users are familiar with it and it encourages them to complete the questionnaire at their own convenience while allowing for some space to reflect on their answers. | Questionnaires often provide low response (return rates), time-consuming follow-up and data entry. |
| Questionnaires allow with minimal effort the processing of vast amounts of data. | Ease of production and distribution can result in the collection of far more data than can be effectively used. |
| The availability in one location of several participants makes time and cost savings possible and offers a high proportion of valuable and useful responses. | Questionnaires are everywhere, competing for participants' time. |
| Questionnaires can be used time and time again as research tools to quantify differences between groups of people. They are therefore effective tools for collecting data. | Lack of sufficient time to complete the questionnaire can result in superficial data being returned. |

| The person who administers the tool has the ability to comment on and explain the intent of the analysis and expand on the significance of things that may not be obvious. | Lack of personal contact (if the questionnaire is mailed) may result in suffering from low response rates, requiring the cost of follow-up letters, telephone calls and other ways to chase the respondent. |
|---|---|

The common advantage of using questionnaires is that its costs are less in terms of money and time. However, questionnaires also have their disadvantages and weak points that must be also be considered, for example, the targeted population not responding to the questionnaire. Therefore, when designing the questionnaire, attention should be focussed on designing or asking the questions that should be easy to comprehend and to keep it less complicated and precise via proper selection of wording to formulate each question (Bowling, 2005). Another crucial thought should be to maintain the questions as short as possible so that the respondents should not have to spend too much time on the questionnaire. This will ensure that a high response rate within a limited period of time is achieved.

There are basically two categories of questions, namely, closed ended and open ended questionnaires. Closed ended questions provides the respondents with a set of responses from which they have to choose, while open ended questions provide the respondents with space for a word, phrase or even a comment. This entails that "open-ended questions do not need a one-word answer but provide interviewees with ample opportunity to express their feelings" (De Vos, 2005) and "allow informants to respond in their own words" (Polit & Hungler, 2004:334). The questionnaire for this study consisted predominantly of closed-ended questionnaire to realise its quantitative facet. Open-ended question was only used wherein the respondents were asked to say anything about the user education programmes at the UL library. The specimen of the questionnaire is attached as appendix A.

### 3.5.3. Questionnaire development and implementation

The questionnaire consisted predominantly of closed-ended and slightly open-ended questions. The questionnaire is attached as appendix A. The ordinal data were gathered

by means of the rating of predefined items using a 4-point Likert rating scale where 1-2 responses represented negative and 3-4 represented positive attitudes. The questionnaire was also composed of only two sections. The first section captured respondents' demographic characteristics in terms faculty and school to which they were registered. Section two captured issues pertaining to attendance of user education programmes, types of programmes that the users attended and the attitude of users towards user education programmes. The questionnaire was distributed to students in their lecture halls with the permission of their lecturers. Some of the respondents completed their responses in the hard copy questionnaire by hand, while others opted for the electronic version on Google forms. The electronic version was sent out to students' university email accounts known as keyaka account.

### 3.5.3. Content analysis of UL website

Content analysis is one of the social science research methods used for analysing the contents of recorded human communication such as books, paintings and other forms of communication, including websites. The content analysis research method puts a researcher in a position to analytically identify and study the nature of large amounts of textual, image, and audio-visual information (White & Marsh, 2006). It is a research tool used to determine the presence of certain words or concepts within texts or sets of texts in a recorded human communication media. Weare and Lin (2000: 272) state thus: "although content analysis as a research method has existed for centuries, its development and diffusion have been primarily spurred by the rise of mass media, in the 19th century and the electronic media in the 20th century and that this form of scientific inquiry has been adopted by a wide variety of disciplines such as communication, psychology, sociology, organisational theory and political science". The advancement of the world wide web (www) and its related web technologies in general present researchers with more significant opportunities for contents analysis. In this study, content analysis was conducted visiting the UL library website to identifying and study the contents of the website with the sole purpose of identifying any user education programmes uploaded or advertised on the website. Rhodes and Chellin (2000: 59) emphasise that "the Web is used as a supplement to existing user education, in order to

support independent, student centred learning and to reach part-time and distance learners".

When a single study adopts three or more data collection methods, it may also involve to be adopting a research practice referred to as triangulation. Triangulation is a method "in social science research technique that is often used to indicate that more than one method of data collection from both research approaches are used in a study with a view to double (triple) checking the results" (Salkind, 2010a).
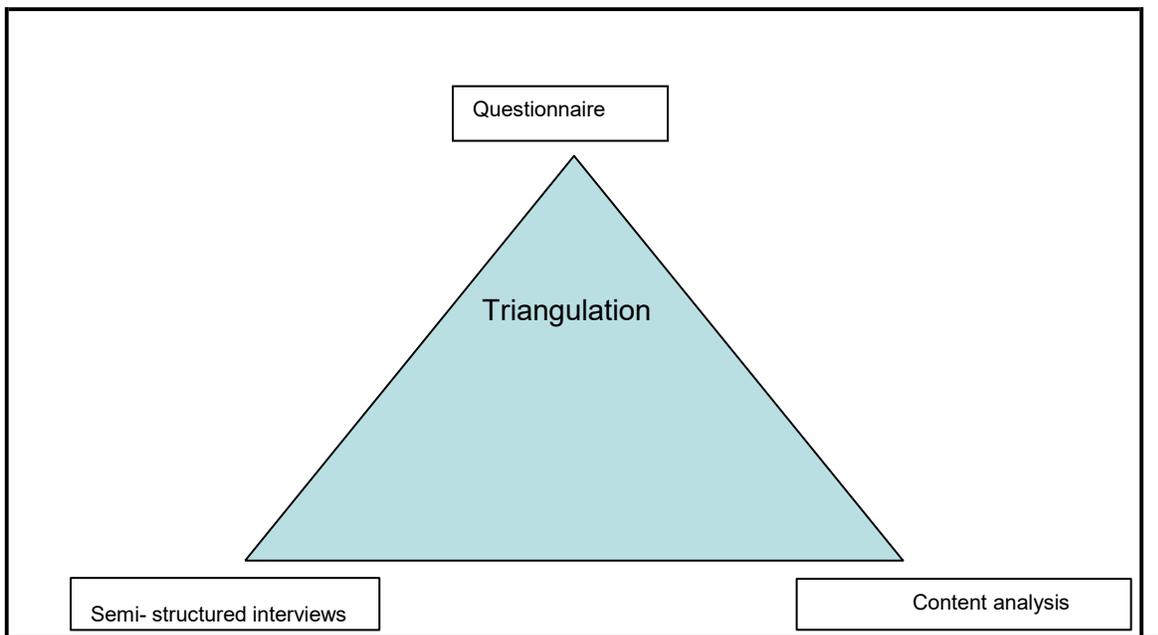


Figure 3.1. Triangulation of data collection methods

The conviction behind triangulation is that the investigator can be more persuaded or convinced with the outcome or the results of a study, if dissimilar data collection procedures lead to similar outcomes. Therefore, triangulation is done when one wants to validate or corroborate results obtained from other methods. Triangulation in this study was done through the analysis of the contents of the University of Limpopo website, in order to determine if the user education programmes purported to be delivered at the UL library appear on the website.

## 3.6	POPULATION AND SAMPLING METHODS

### 3.6.1  Population

Burns and Grove (2011:233) reckon that "the research population is the entire set of individuals that meets the sample criteria of the study". The UL final-year students and library staff responsible for conducting user education programmes, that is, subject librarians, were the targeted population of the study. The researcher decided that subject librarians were more involved in the user education programmes than any other category of library staff. Final year students were chosen as population for this study because they were in a position to evaluate the user education programmes that they are offering. Therefore, the researcher assumed subject librarians would be the most appropriate research population to fulfil the research aim and purpose, as well as address the objectives of the current study. The population for this study also consisted of 260 UL final-year students and eight library staff responsible for conducting user education programmes.

From the final students, the researcher solicited their perceptions of the adequacy of user education programmes; while from subject librarians, the researcher solicited information about the structure and content of the user education programmes at the UL, as well as challenges encountered in conducting user education programmes. The UL academic structure is divided into four faculties, namely Humanities, Management Science and Law, Health Sciences, and Sciences and Agriculture; and 11 schools. From each faculty, the researcher identified the departments or disciplines whose students attended the user education programmes to participate in the study. The number of students who participated therefore depended on the number of students registered in that department or programme at the time of collecting data.

Therefore, the total population under study is approximately 4 807 (Maake & Sundani 2018). This enrolment is inclusive of both third-year and fourth-year level students. Since it would have been impossible to reach all the students, the sampling method used for selecting participants was required. According to the University of Limpopo UL Witness

magazine dated March 2018, the total number of final-year students at the University of Limpopo by the end of January 2018, were as follows:

- Faculty of Health Sciences: 358
- Faculty of Humanities: 1 576
- Faculty of Management and Law: 1314
- Faculty of Science and Agriculture: 1 559

**TOTAL:                              4 807**

## 3.6.2  Sampling

Sampling is defined as the "the process of selecting participants from the population of the study to become the basis for estimating the prevalence of information of interest to a researcher" (Kumar, 2011:397). Additionally, Bless et al. (2013:163) believe that "sampling means abandoning certainty in favour of probability". Research literature shows that, generally, there are two main methods of sampling, namely "probability" and "non-probability" sampling. According to Bless et al. (2013:166), "probability sampling is when the probability of including each element of the population can be determined. Non-probability sampling is when there is probability of including each element of the population is unknown". This study employed the both "probability" and "non-probability sampling" methods, in the form of systematic random sampling, accidental sampling and purposive sampling. Walter (2013:101) argues that non-probability sampling is mostly connected to qualitative methodologies, but can be used in quantitative projects, but with certain conditions attached, that is when a probability sampling is not feasible. "With non-probability sampling, the sample meets the population parameters for the study; however, the sample is selected using the researcher's judgement and the participants are therefore randomly selected" (Du Plooy-Cilliers, Davis & Bezuidenhout, 2014:137). To achieve the purpose of this study, the investigator adopted systematic random sampling method for the final-year students or library users, to come up with a sampling frame. The researcher also adopted accidental or convenience sampling by distributing the questionnaire to the final-year students who were available at the time of collection data, as well as the purposive sampling for the interviews with subject librarians.

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*3.6.2.1     Sample frame*

To arrive at a sample frame of participants, a systematic random sampling was applied. This is a sampling method where participants were selected by picking the ones who are on the kth or 11th element or unit (interval) in each and every Faculty at the UL (Maree 2016). This entails that the number of final-year students in each faculty was obtained, and divided by 11. The advantage of "systematic sample is that it is really fast and easy, as well as convenient when you already have a list of the units in your population. Unless when the population is arranged in a particular pattern and if the periodicity of sampling might exactly match the periodicity of that pattern one may encounter bias problems" (Zou, 2006). The third column in table 3.2 shows the number of participants in each faculty by picking the ones who are counted on the kth or 11th interval. The sum of all four faculties final-year students was 4 807, and the targeted population when counted on the kth or 11th element in each faculty was 435, which was the targeted number of final-year student to participate in this study.

Table 3.2. Sampling frame

| Faculty | Total final year students | Targeted number | Number of respondents | Percentage achieved |
|---|---|---|---|---|
| Health Sciences | 358 | 32 | 29 | 91% |
| Humanities | 1576 | 143 | 103 | 72% |
| Management and Law | 1314 | 119 | 61 | 51% |
| Science and Agriculture | 1559 | 141 | 67 | 48% |
| Total | 4807 | 435 | 260 | 72% |

However, this target could not be reached because it was not easy to reach most of the final-year students in most faculties. The reasons behind the low response rate are provided in the next chapter. Nevertheless, the responses received, 260 out of 435, constituting 72% of the total number of the targeted population, were sufficient for the researcher to generalise the findings to the entire population (Punch 2003).

### 3.6.2.2  Convenience / accidental sampling

An argument advanced by Neuman (2012:147) that "in convenience sampling (also called accidental, availability or haphazard sampling), the researcher's primary criteria for selecting cases are that they are easy to reach, convenient or readily available" was adopted for reaching the participants in this study. The convenience method was used in this study to reach the final-year students because the researcher had to visit their classes to collect data until the required number of respondents is reached, as the researcher visited classes at different times. However, some did not complete the questionnaires (they just returned the questionnaires blank) and the researcher realised that when attempting to analyse the responses.

### 3.6.2.3  Purposive sampling

According to Barbour (2008:52), "in purposive sampling, the researcher selects interviewees or focus group participants by virtue of characteristics that the researcher thinks are likely to have some bearing on their perceptions and experiences". An argument advanced by Walter (2013:111) that "in purposive sampling, the sample is selected based on what the researcher knows about the target population and the purpose of study" was also implemented in this study. Purposive sampling was used for the UL library staff because they are the ones who plan and conduct user education programmes. This sample is in a position to provide information about the structure and content, as well as the challenges encountered in offering user education programmes.

## 3.7  DATA ANALYSIS

Research literature shows that "there are three ways of analysing data collected through qualitative interview The first method includes analysing interviews as reports of affairs and matters of facts, the second one includes thematic analysis and the third one is linguistic analysis" (Gomm 2008:240).

### 3.7.1 Thematic analysis for qualitative data

The thematic analysis offers a versatile and valuable research tool that could deliver a detailed and accurate, but dynamic data account (Nowell, Norris, White & Moules, 2017). In order to enhance the analytics of the data and the conclusions reached in the data, the data were also analysed as reports of affairs and as facts. "Thematic analysis was performed through the process of coding in six phases to create established, meaningful patterns. These phases are: familiarisation with data, generating initial codes, searching for themes among codes, reviewing themes, defining and naming themes, and producing the final report" (DeCarlo, 2018). In thematic analysis similar responses are identified and categorised into themes. But before categorising responses into themes, responses from the participants are first presented verbatim, to be able to identify similar responses.

### 3.7.2 Descriptive statistics for quantitative data

Descriptive statistics focus attention on the summary of data obtained for a group of individual units of analysis (Creswell et al. 2012). Data were obtained were entered into Excel spreadsheet for analysis. After that, it is presented in the form of tables and graphs, described and interpreted at the same time. In this paper reporting on human subjects, a table was included giving the overall sample size, sample sizes in important subgroups (e.g. for each faculty or school), and demographics or other characteristics such as the average age, the proportion of subjects of each sex, and more. Descriptive statistics were also used to analyse quantitative data from students' questionnaires.

### 3.8    QUALITY CRITERIA

Establishing the trustworthiness and rigour of research depends on the research approach that is being adopted. Since this study uses both qualitative and quantitative research methodologies, the quality and value of the research were established as follows:

### 3.8.1 Quantitative criteria

Before data could be collected from the participants, a pilot study was implemented to measure the easiness of the questionnaires and the interview questions. When "a researcher plans to undertake quantitative (or even qualitative) research, the researcher needs to consider undertaking a pilot study before attempting the main research" (Offredy & Vickers, 2010:85). Bless et al. (2013:107) define a pilot project as a project that is run on a limited scale, for example, with a single small community over a short period of time, in order to test the effectiveness and community support for the proposed solution. A pilot study helps the researcher "to identify potential problems that may have an effect on the quality and validity of the results" (Blessing & Chakrabarti, 2009:114). "A pilot study also helps the researcher to test and refine aspects of a final study, for example, its design, fieldwork proceeding, data collection instruments and analysis plans" (Yin, 2015:39). Therefore, a pilot project / study was conducted to test the easiness of the instrument used to assist the researcher to identify potential problems that may have an effect on the quality and validity of the findings.

The pilot study for this research project took place within the UL library and the feedback was used to improve data collection instruments and alleviate potential problems. The problems that the researcher discovered were spelling errors and ambiguity. This was corrected and the questionnaire was ready for data collection. Furthermore, the pilot study was used to establish reliability and validity of the study. Reliability is concerned with the stability of research findings using the same research instrument more than once. Therefore, the researcher ensured that the research instrument used in this study was used more than once and if the results are found to be similar, reliability of the research instrument is accepted (Pickard, 2013:23). Validity simply refers to the extent to which the findings of the research can be generalised to a wider context. Appropriate sampling methods will be used to ensure representativeness of the population credibility or the truth of the research. The researcher was as objective as possible by not taking sides or favouring the responses of some of the participants over others. All the people who were part of the study were given equal treatment and opportunity. The researcher was very careful when making a judgement in the study.

### 3.8.2 Qualitative criteria

In order to establish the trustworthiness of the study credibility, transferability and dependability were also taken into consideration. Credibility was established through triangulation of the responses from the participants. For instance, if the respondents talked about a particular user education programme, the researcher visited the library website to check if the programme is available on the website. Transferability was ensured by adapting the same instruments that were used in the past for related research topics, while dependability was achieved by maintaining an "internal audit" along with the research journal (Pickard, 2013:21).

## 3.9    DATA COLLECTION PROCEDURE

Data were collected at the UL. The researcher directly recruited students and library staff. The researcher interviewed eight library staff members, while within the lecture halls, 435 questionnaires were distributed to students. Before the participants were interviewed and questionnaires distributed, the researcher asked the participants to read the cover letter before completing the questionnaire. The letter asked respondents to participate in the study and informed them that their involvement was voluntary and that they could withdraw at any point they felt like doing so. The letter also briefed the participants about the study's purpose and how the investigator intended to use the study results. The self-administered electronic questionnaires were also emailed to final-year students at their keyaka email accounts in the UL while hard copies were personally handed out to the students in their classes.

## 3.10   ETHICAL CONSIDERATIONS

Every research must comply to the ethical standards, because they deal with human elements. Therefore, "ethics are professional standards that lead the researcher to uphold the principles of integrity during the study. The standards also serve "as moral principles intended to guide the researcher in situations where harm can occur to research

participants" (Bless et al 2005). The importance of ethical consideration in research has been alluded to by several researchers in research literature. May (2011:61) believes that "ethics is concerned with the attempt to formulate codes and principles of the moral behaviour", whereas Bless et al. (2013:28) explain that "the most basic principle of research is that participants must not be harmed, physically and emotionally through their participating in the research project". "Research ethics places an emphasis on the humane and sensitive treatment of research participants, who may be placed at varying degrees of risk by research procedures. It is always the researcher's responsibility to ensure that his or her research is conducted ethically conducted" (Pickard, 2013).

### 3.10.1. Privacy and confidentiality

Neuman (2011:380) argues that "the primary ethical concern is the privacy and confidentiality of using information that someone else gathers". By means of a covering letter attached as appendix C, participants were therefore requested not to write their names on the questionnaires. In this way, their identity remained unknown.

### 3.10.2. Informed consent

Research participants should not be forced to participate in a study. They should agree with the researcher that they were not forced to part take in the study. In this study, the participants were informed about the purpose of the study, what type of information is needed from them and how the information would be used. Furthermore, participants were given an opportunity to voluntarily agree to partake in the study. Participants also had a chance to withdraw their participation in the study at any stage during data collection. They signed the consent forms. A copy of the consent form is attached as appendix E. Informed consent implies that the "subjects are made adequately aware of the type of information the researcher want from them, why the information is being sought, what purpose it will be put to and how they are expected to participate in the study" (Kumar, 2011:244).

### 3.10.3. Gate keeping

As it was of great importance to gain access to the study area, the researcher had to communicate with the university library management and request access to the library staff responsible for user education programmes, through the letter written by the supervisor. A copy of the letter is attached as appendix D. In this case, the university library management is referred to as gatekeepers, who Neuman (2011:429) defines "as people with the formal or informal authority to control access to a site". With the same letter from the supervisor, the researcher was also able gain access to the students by talking with their lecturers and requesting a few minutes of their time to complete the questionnaire.

### 3.10.4. Ethical clearance

Moreover, the research proposal was submitted the School and Faculty of Humanities for approval before applying for the ethical clearance certificate from the Turfloop Research Ethics Committee. The ethical clearance certificate that was issued afforded the researcher a green light to collect data from the participants and embark on the research. The ethical clearance certificate s attached as appendix F.

### 3.10.4. Acknowledgement of sources

Failure to acknowledge sources used in the compilation of a research report constitutes plagiarism. Therefore, the researcher needed to be very careful not to pervert someone else's work as his own. To avoid plagiarism, it is significant to ensure that all the works utilised in the study are correctly cited and acknowledged. The researcher also acknowledged any sources cited in this study and provided a list of references at the end of the research report. This work was also subjected to the plagiarism detection tool, that is, Turn-it-in, of which the report is attached.

### 3.11   SUMMARY

Chapter three presented the research methodology that was adopted in this study. Research methodology, that is quantitative and qualitative methods, as well as the

research design. Reasons behind the adoption of both quantitative and qualitative research methodologies were also advanced. Interviews and questionnaires, with the former dominant, were therefore adopted as the most appropriate data collection methods to achieve different purposes that were based on the objectives of the study. These methods were chosen not because they supplement each other, or to verify if application of the same methods yield similar outcomes, but to address or fulfil different objectives of the study. Therefore, it cannot be habitually implied that this study adopted a "mixed method" approach, because it adopted both qualitative and quantitative research approaches. The reason for adopting both quantitative and qualitative research approaches was to cover both the study populations and to address different objective of the investigation, and to triangulate the results from the qualitative approach through content analysis of the UL website.

The chapter also covered research design, data collection methods, sampling, and data analysis methods. To arrive at a sample frame, systematic random sampling was used, as well as convenience / accidental sampling was used to distribute the questionnaire to the respondents, as well as purposive sampling was used to select a sample from library staff. Some participants completed the questionnaire by hand while others opted for the electronic version on Google forms and the interviews were taped / recorded on a cell phone. The researcher transcribed interviews. The data analysis was analysed by a computer program known as Microsoft Excel spreadsheet. The following chapter provides a detailed description of data analysis and interpretation.

# CHAPTER FOUR
# DATA PRESENTATION, ANALYSIS AND INTERPRETATION

## 4.1    INTRODUCTION

This chapter deals with the presentation, analysis and interpretation of data that were collected through qualitative and quantitative methods. More specifically, the findings of the study are presented, analysed, interpreted and discussed broadly, that is, in accordance with the literature on the topic. Research analysis has to do with the "gathering and comparing of discussions that have similar themes, and examining how these relate to the variation between individuals and groups". (De Vos et al 2005:312). According to De Vos et al. (2005:311), "research analysis is aimed at looking into trends and patterns that repeat within a single focus group or among various focus groups". In this study, data were analysed to describe the perceptions and experiences of final-year students at the UL on the adequacy of library user education programmes.

The aim of this study was to evaluate / assess perceptions of final-year students at the UL on the adequacy of library user education programmes. To achieve this goal, the study also investigated the structure and content of library user training programmes at the UL, and examined the extent to which the user training improved students' use of the library and its resources, challenges and impediments to user training in the UL library experienced by both the library users and the library staff, as well as the recommendations on how to improve. As shown in the previous chapter, the study employed three methods for collecting data which are the questionnaire, the semi-structured interview and the review of literature. All responses obtained from all these methods are captured in this chapter.

**4.2    RESPONSE RATE**

The self-administered electronic questionnaires were emailed to final-year students through their keyaka email accounts in the University of Limpopo. The hard copies of questionnaires were personally handed out or distributed to the students in their classes. Only 260 usable questionnaires were obtained from students, this amounts to a response rate of 72%. The poor response rate could be attributed to the following reasons:

- Questionnaires were distributed during the month of August, when undergraduate students were in the process of preparing for their tests after the disruptions caused by the strike.
- Students do not understand the significance of the library in relation to their learning.

Table 4.1. Illustration of the response rate of respondents for this study

| Targets | Total number | Target number | Actual number | Response rate in % |
|---|---|---|---|---|
| Final-year library users | 4807 | 357 | 260 | 72% |
| Library staff subject librarians | 10 | 10 | 8 | 80% |
| **Totals** | **4815** | **367** | **268** | **73%** |

The response rate was seen as sufficient for the study based on the views by Babbie and Mouton (2001) who propose "that any response rate that is 50% or above is acceptable and is considered adequate for analysis". In this case, the researcher can be regarded as fortunate to have achieved such a response rate.

**4.3    QUESTIONNAIRE RESULTS**

Even though library users' demographics were not what the study set out to find out through the objectives of this study, it was important to obtain information on their

demographic profiles in order to understand their characteristics. In most cases, the demographic characteristics or profile of respondents can also serve as variables that determine the responses that participants provide. The demographic questions were based on faculty and school.

### 4.3.1 Final-year students' demographics

As indicated in question 4.3, demographic information of users was not part of the objectives of this study, but it was important that the demography of library users be obtained in order to see if their information needs relate to their demography. It was important for the study to obtain information on the faculties within which library users fall in order to understand the relationship between faculties and the library in relation to the user education programmes offered. Faculty distribution of respondents is presented in figure 4.1 below.
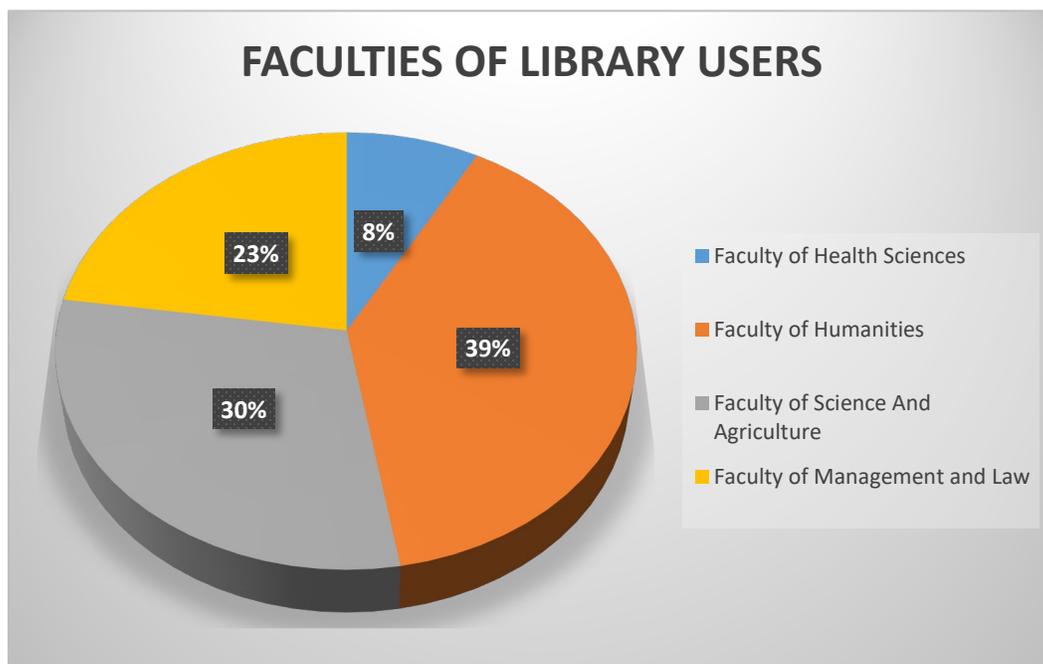


Figure 4.1: Faculties of library users

The findings indicate that final-year students who took part in the study were 102 (39%) students registered in the Faculty of Humanities, 59 (23%) registered in the Faculty of

Management and Law, 78 (30%) registered in the Faculty of Science and Agriculture, and, finally, 21 (8%) registered in the Faculty of Health Sciences who took part as library users. The Faculty of Humanities is the largest faculty at the University of Limpopo.

4.3.2  Schools respondents belong to

It was important for the study to obtain information on the schools under which library users are enrolled in order to see which schools participate in the user education programmes.

Table 4.2. Illustration of the School's respondents

| Faculty | Schools | No. of respondents | Percentage (%) |
|---|---|---|---|
| Management and Law | School of Accountancy | 17 | 7 |
| | School of Economics and Management | 14 | 5 |
| | School of Law | 28 | 11 |
| Health Sciences | School of Health Sciences | 21 | 8 |
| | School of Medicine | 0 | 0 |
| Humanities | School of Education | 45 | 17 |
| | School of Languages and Communication Studies | 25 | 10 |
| | School of Social Sciences | 32 | 12 |
| Science and Agriculture | School of Agricultural and Environmental Sciences | 18 | 7 |
| | School of Mathematical and Computer Sciences | 12 | 5 |
| | School of Molecular and Life Sciences | 35 | 13 |
| | School of Physical and Mineral Sciences | 13 | 5 |
| TOTAL | | 260 | 100 |

Table 4.2 indicates the schools to which the respondents are attached. The findings revealed that the majority of the respondents (45: 17%) were students from the School of Education in the Faculty of Humanities, followed by 35 (13%) from the School of Molecular and Life Sciences in the Faculty of Sciences. The School of Medicine in the Faculty of Science had zero respondents because there are no final-year students yet in that school. The least respondents are from the School of Mathematical and Computer Sciences in the Faculty of Sciences with 12 (5%), while the School of Physical and Mineral Sciences in the same faculty had 13 (5%) respondents in the study. More of these results are presented in table 4.2 above.

### 4.3.3 User education programme attendance

Respondents were asked to indicate whether or not they attended any of the library's user education programmes. This issue is crucial because it puts forward whether participants formed their perception of attending the library's user education programmes on the basis of their own experiences acquired by using the library or on the basis of what others said. Library user education programme attendance distribution is presented in figure 4.2:
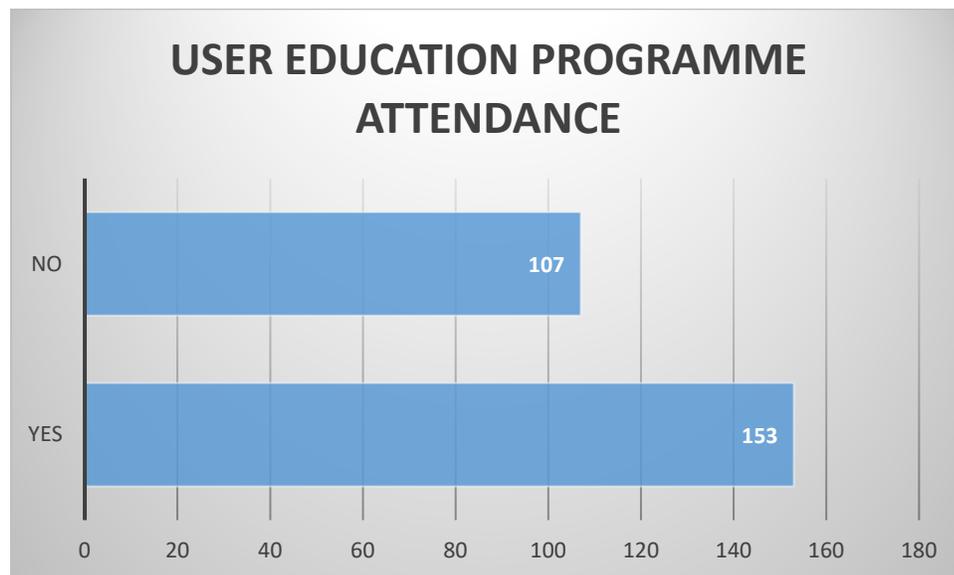


Figure 4.2: User education programme attendance

The results show that 107 (41%) of the students did not attend the library user education programmes while 153 (59%) attended the programmes. The findings show that 41% of the participants did not attend user education programmes. According to Hoskins et al. (2015), the problems connected with the timing of library orientation are identified by participants. One of these is the fact that orientation runs at the same moment as registration processes. During this period, the students have not yet settled down and their information needs have not yet been established.

4.3.4  Reasons for not attending the user education programmes

After investigating respondents' attendance of the library user education programmes offered by the library, their reasons for not attending the library user education were investigated. This question was intended to find out why the respondents did not attend the library user education. Students' reasons for not attending the user education programmes are presented.
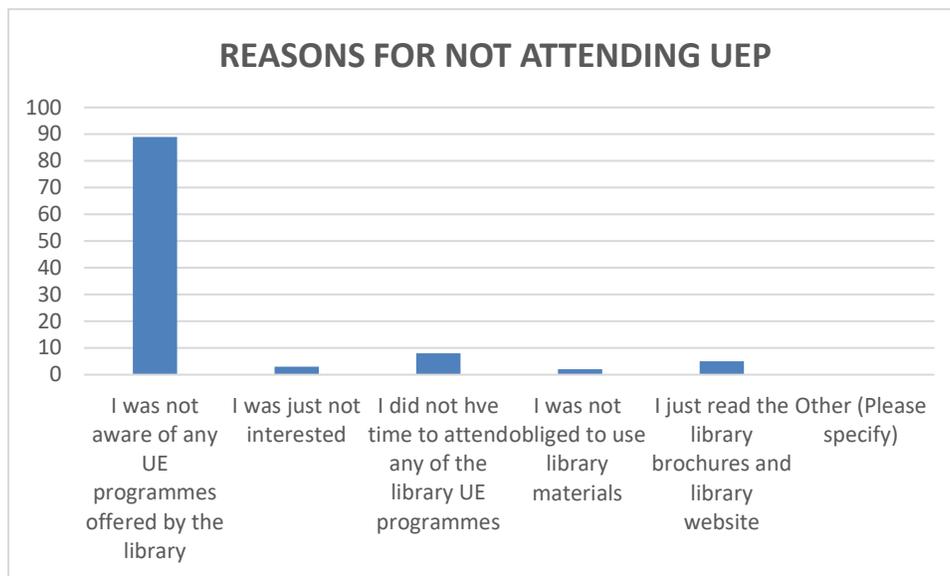


Figure 4.3: Reasons for not attending user education programmes

The findings indicate that 89 (83%) of the students who did not attend the user education programmes attribute their reason to not being aware of any user education programmes offered by the library. The other three (0.3%) students stated their reason as lack of

interest, while eight (0.8%) said that they did not have time to attend any of the user education programmes offered by the library, while five (0.5%) students alleged it was not necessary for them to attend the user education programmes as they read the library brochures and browsed through the website for guidelines on all the information they needed.

The main reasons provided by students for poor user training attendance included not being aware of the training, the time allocated and the scheduling of user education interventions. Since this research focused on full-time undergraduate students who can attend any of the scheduled times, it is not surprising that the problem of timing surfaced as a challenge. Students were asked to specify their level of awareness of user education programs provided by the library in the UKZN research undertaken by Hoskins et al. (2015). In particular, the question wanted to ascertain whether participants were conscious of the library's user education programs and how they acquired information on such programmes. The research discovered that most students recognised they knew about the library's user education programmes, while some claimed they had no knowledge of those programmes. Hoskins et al. (2015) discovered that most students were informed by friends or peers about user education, followed by lecturers or instructors and subject librarians. The research found that very few students obtained information from the UKZN library's website, notice boards and other library employees during the orientation week or from the UKZN library. The fact that the participants scored low on the library website, notice boards and other library employees suggests that these library instruments were not very efficient in promoting or marketing user education to students.

Liu (2017) stipulates that students do not join user education in the library most of the time because they do not understand the information well. Cooperation with faculty representatives and student committees is required to ensure increased attendance of library user education. Another effective way of increasing attendance is through updating of information on television screens in the library. In addition, it is important that the library user education be made more enjoyable and exciting to improve student teaching (e.g.

using games in library instruction) (Liu 2017). The findings reveal that marketing as a tool for communicating, popularising and generating knowledge among stakeholders is also critical to user education. "User education programs strive to make all users aware of the accessible information resources, both directly in the library and from external sources, and to allow users to enjoy information searching" (Aderibigbe & Ajiboye, 2011; Hanson, 1984; Maduako, 2013).

## 4.3.5  Library user education programme attended

The respondents were further asked which library user education programme they had attended. They had to indicate by a tick on a list of programmes offered that they had indeed attended. The findings in Figure 4.4 above, reveal that the majority of respondents (78: 50%) attended the library orientation, 63 (41%) made use of library, 54 (35%) used information literacy, 48 (31%) used Turnitin, 38 (24%) attended a library tour, 27 (17%) used bibliographic instruction, 26 (17%) used RefWorks, 17 (11%) used the online library handbook, and 10 (6%) used tutorials.
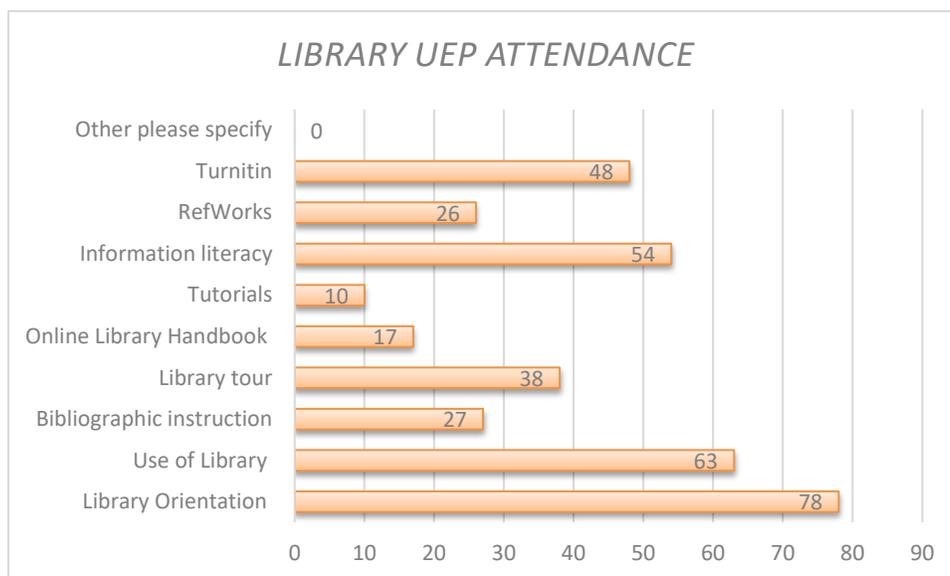


Figure 4.4. Library user education programme attendance

Library orientation stands at a high of 50 percent simply because during orientation, the majority of first entering students from all faculties are available and willing to attend the orientation programmes. The second highest being ordinary use of the library which is at

41 percent due to the fact that all students are at some point supposed to use the library for its resources, while the third highest is information literacy which stands at 35 percent due to the fact that only two facultes are enrolled for it and for students in those faculties it is compulsory. Turnitin is at a low of 31 percent because it has not been made compulsory for all students, it mostly features in bibliographic instruction where students are preparing for research projects.

Omeluzor et al. (2017) feel that "several challenges have been identified in research as factors militating against user education in academic libraries". Among some of the impediments are students' low turnout in user education programmes, as well as a lack of interest on the part of the academics, non-expository of the programme, inadequate time for library instruction, and non-utilisation of information technology in the instruction.

4.3.6  Impact of library user education attendance

Besides asking respondents about their attendance of library user education sessions, respondents were also asked about the impact user education programmes had on them. The purpose of the question was to discover among the participants the benefits of user education programmes. A 4-point Likert scale was used in this section where 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree to convey their perception.

The findings indicate that the majority of the respondents agreed and strongly agreed that the user education programmes had a positive impact on them as it turned them into regular library users, made them aware of the library resources / services, introduced them to relevant databases, and taught them how to search for and locate materials. A research by Zhong and Alexander (2007) found that "students need to feel they are part of the university community, empowered by using their resources, as well as comfortable and welcome in their educational setting". The above-mentioned writers further indicated that in relation to training, evaluation and assessment strategies should concentrate on reference staff friendliness and efficiency.

**IMPACT OF LIBRARY UEP ATTENDANCE**

Legend: ■ Strongly Disagree ■ Disagree ■ Agree ■ Strongly Agree
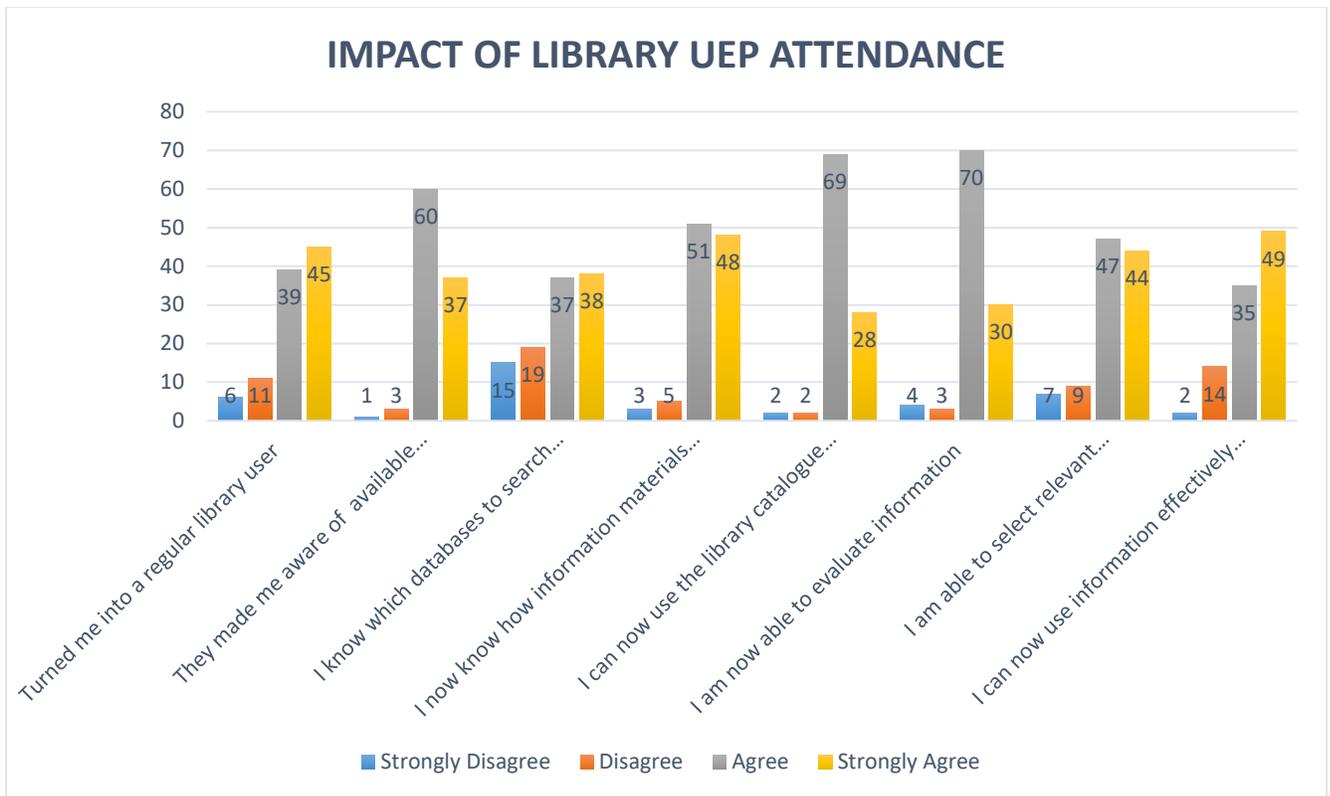
Figure 4.5. Impact of library UEP attendance

Looking at the impact that user education programmes had on the students from the behaviourist theory of learning point of view shows that user education has positively affected the students' use of library resources, and ultimately their academic success (Oluwunmi, Durodola & Ajayi, 2016; Uwakwe, Onyeneke & Njoku, 2016). The students at Sefako Makgatho Health Sciences University Library also emphasized that the user education training programme which they attended was "valuable and required", not only for their academic success, but also "for various aspects of their life, studies and career" (Reetseng, 2016). Kim and Schmaker (2015) also shows that the students who have been involved with some kind user education programme tend to rate the effectiveness, importance, and the impact of user instructions. The same can be said about the study by Allard et al (2019) which showed that library and information science student respondents recognise and appreciate the value of user education programmes as an important part of their overall learning practices.

### 4.3.6.1     Turned me into a library user

The graph in Figure 4.5 depicts that six (4%) respondents strongly disagreed with the above statement, 11 (7%) respondents also disagreed with it. On the positive side, it can be seen that 39 (25%) respondents agreed with the statement that user education programmes turned them into library users while 45 (29%) respondents strongly agreed with the statement.

### 4.3.6.2     Made me aware of available library materials

The graph in figure 4.5 depicts that one (0.7%) respondent strongly disagreed with the above statement, three (2%) respondents also disagreed with it. On the other side, it can be seen that 60 (39%) respondents agreed with the statement that user education programmes made them aware of available library materials, while 37 (24%) respondents strongly agreed with that statement.

### 4.3.6.3     Knowledge of which databases to search when faced with an information query

The graph reveals that 15 (10%) respondents strongly disagreed with the above statement, 19 (12%) respondents also disagreed with it. On the other side, it can be seen that 37 (24%) respondents agreed with the statement that user education programmes gave them knowledge of which databases to search when faced with an information query, while 38 (25%) respondents strongly agreed with that statement.

### 4.3.6.4     Knowledge of how information materials are organised

The graph shows that three (2%) respondents strongly disagreed with the above statement, five (3%) respondents also disagreed with it. On the other side, it can be seen that 51 (33%) respondents agreed with the statement that user education programmes gave them knowledge of which databases to search when faced with an information query, while 48 (31%) respondents strongly agreed with that statement.

*4.3.6.5      I can now use the library catalogue and other information retrieval tools*

The graph in figure 4.5 depicts that two (1%) respondents strongly disagreed with the above statement, two (1%) respondents also disagreed with it. On the positive side. it can be seen that 69 (45%) respondents agreed with the statement that user education programmes made them knowledgeable in using the library catalogue and other information retrieval tools, while 28 (18%) respondents strongly agreed with the statement.

*4.3.6.6      I am now able to evaluate information*

The graph reveals that four respondents strongly disagreed with the above statement, three (2%) respondents also disagreed with it. On the other side, it can be seen that 70 (46%) respondents agreed with the statement that user education programmes gave them knowledge to evaluate information while 30 (20%) respondents strongly agreed with that statement.

*4.3.6.7      I am able to select relevant information sources*

The graph in figure 4.5 illustrates that two (1%) respondents strongly disagreed with the above statement, 14 (9%) respondents also disagreed with it. On the positive side, it can be seen that 69 (45%) respondents agreed with the statement that user education programmes made them knowledgeable in using the library catalogue and other information retrieval tools, while 28 (18%) respondents strongly agreed with the statement.

*4.3.6.8      I can now use information effectively without plagiarising*

The graph displays that seven (5%) respondents strongly disagreed with the above statement, nine (6%) respondents also disagreed with it. On the other side, it can be seen that 35 (23%) respondents agreed with the statement that user education programmes made them knowledgeable on how to use of information without plagiarising, while 49 (32%) respondents strongly agreed with that statement.

### 4.3.7 Rating of the attitudes towards library user education the usefulness of library user education

In this section, the same 4-point Likert scale was used (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree) to express the students' perceptions regarding the role of user education programmes. The researcher sought to determine students' perceptions with regard to the importance and usefulness of user education programmes. This question addresses the aim of the study, which is to investigate students' perceptions of the adequacy of library user education programmes at UL.

### 4.3.7.1 *User education programmes are very informative and useful*

The graph in Figure 4.6 depicts that seven (5%) respondents strongly disagreed with the above statement, nine (6%) respondents also disagreed with it. On the positive side, it can be seen that 57 (37%) respondents agreed with the statement that user education programmes were very informative and useful, while 54 (35%) respondents strongly agreed with the statement.
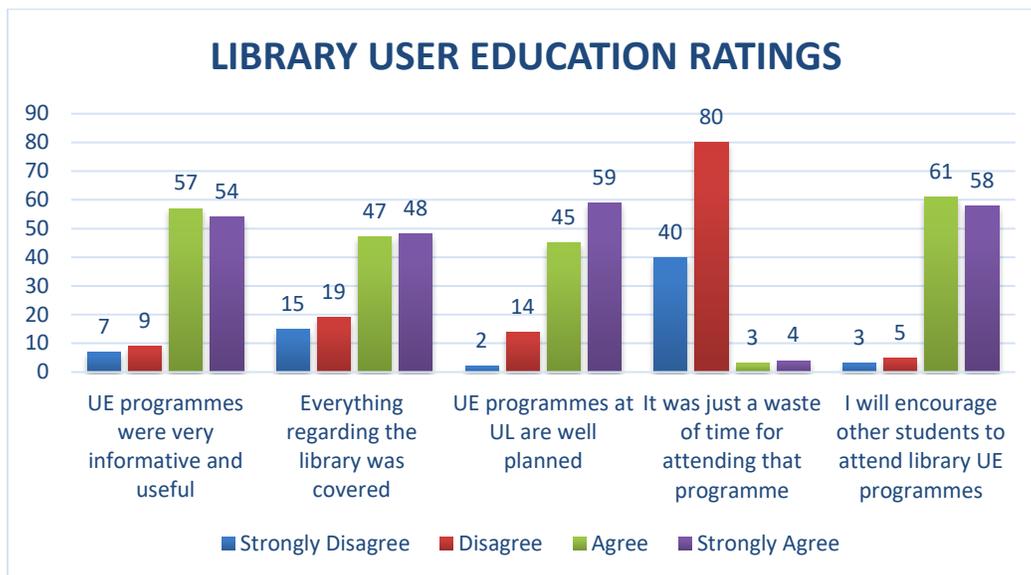


Figure 4.6. Library user education ratings

*4.3.7.2       Everything regarding the library was covered*

The graph in figure 4.6 illustrates that 15 (10%) respondents strongly disagreed with the above statement, 19 (12%) respondents also disagreed with it. On the progressive side, it can be seen that 69 (45%) respondents agreeing with the statement that everything regarding the library was covered in the user education programmes, while 28 (18%) respondents strongly agreed with the statement.

*4.3.7.3       User education programmes at UL are well planned*

The graph reveals that two (1%) respondents strongly disagreed with the above statement, 14 (9%) respondents also disagreed with it. On the other side, it can be seen that 45 (29%) respondents agreed with the statement that user education programmes at the UL are well planned, while 59 (38%) respondents strongly agreed with that statement.

*4.3.7.4       It was just a waste of time attending the programme*

The graph in figure 4.6 depicts that 40 (26%) respondents strongly disagreed with the above statement, 80 (52%) respondents also disagreed with the same statement. On the other side, it is revealed that only three (2%) respondents agreed with the statement that it was just a waste of time to attend the programme while four (2.6%) respondents strongly agreed with the statement.

*4.3.7.5       I will encourage other students to attend library user education programmes*

The graph in figure 4.6 demonstrates that three (2%) respondents strongly disagreed with the above statement, five (3%) respondents also disagreed with it. On the positive side, it can be seen that 61 (40%) respondents agreed with the statement that they will encourage other students to attend library user education programmes, while 58 (38%) respondents strongly agreed with the statement.

4.3.8   Any other comments about user education programmes at UL

The participants were also requested to make any other comments about user education programmes at the UL. Comments that the participants felt were of importance to mention are arranged into the following themes:

### 4.3.8.1        *Good customer care*

One of the participants mentioned that "the facilitators must be sympathetic to the students and just because they studying their final year does not mean they know all when it comes to visiting the library. Therefore, the better their approach towards the student is, the better the chances are of the students loving to attend the user education programmes. According to Kassim (2009:1),

> "the main goal of libraries and librarians has always been to satisfy the information needs of clients in academic libraries. With distinct needs and expectations, new customers / users come to the university each year and they generally want basic services. They want competence, reliability, responsiveness, timeliness, honesty, and a caring approach. They want everything to work properly and they want assistance with the use of both of the library and the resources. Students / customers want information content for assignments, research or knowledge acquisition. They want assistance with assignments and research support".

"They want e-books and e-journals and printed books and to real journal articles as well as to discover resources, obtain IT abilities have and fair service delivery preparation and motivation" (Schmidt, 2006:5). This requires the existence of a programme of customer care. Dlamini (2006) notes that customer care is a client service aimed at gaining fresh clients, providing superior client satisfaction and building client loyalty. In addition, the author adds that customer care has to do with excellent client relationships so that the advantages and norms provided will be generated by their expectations of products and services.

### 4.3.8.2        *Regular delivery of use education programmes*

Some students suggested that the library should offer user education courses on a continuous basis. One of the participants wrote that "the library needs to offer this programmes frequently as they only do it once per course and we tend not to grasp all information or even forget some steps." This is closely related to what the other

respondent wrote that "user education should be more regularly to make people aware about library materials and the use of information. Furthermore, provide students with though rough explanation on how to locate, identify, analyse, evaluate and make use of information obtained."

> "Users of information are an integral part of the final link in the information transfer chain. They are the 'raison d'etre' of every investment made for bettering the storage, processing and retrieval of information. In every country, from the least developed to the most advanced, a certain amount of scientific and technological information locally produced or of international origin is processed and stored in some fashion for the benefit of users. Unless these users know how to find relevant information available to them, the information 'machinery' falls short of its main goal" (Evans, Rhodes & Keeman, 1977).

### 4.3.8.3    Timing of UEP

Deciding on the right time for user education sessions is one of the most crucial decisions that require careful decision. Some libraries do it at the beginning of the year, while some run it when people have assignments to complete, with the believe that people pay attention best when they have an immediate need. Some have integrated the user education or information literacy programmes into the curriculum. Below are some of the responses that were provided by the participants.

"You should do all the user education programmes in the beginning of the year, first semester not in the final year". Said one of the participants, while another one said that "it will be more efficient if we are provided programmes or handouts to remind us how long are the programmes. To keep time".

### 4.3.8.4    Lectures not using Turnitin

The study also showed that some of the academics are not users of plagiarism software, as shown by some respondents in the responses below. Two respondents talked about the plagiarism detection tool in the Turnitin. "I have been trained on Turnitin, but the lecturers are not creating the link on our blackboard." "The Turnitin should be made a mandatory course / module, so it covers aspects lecturers would use rather than a once-off cream thing". The study by Garba (2018) revealed that the level of awareness on the existence of Turnitin software by academics at the Bayero University Kano is average, while the extend of usage of the software is significantly low. However, this is contrary to

what Savage (2004) discovered at the University of Sydney in Australia, where it was found that academic staff supported the use of Turnitin, although they also expressed some reservation about its capacity and use.

### 4.3.8.5 Other faculties not participating in UEP

Other respondents lamented about their faculties and schools not participating in user education programmes. Below are some of the responses that they highlighted.

"They are effective and useful but the Faculty of Health Sciences is not included as part of the information literacy classes; so this is not fair as we only catch up at a very late stage of our studies."

"There should be an improvement in library information classes that are offered in modules such as English for Sci. (SHEL011/2) and in other faculties. The assessments provided should ensure that, indeed, students are aware of almost everything offered by the library."

"It is very important to use the library and we as management and law students are left out of the most critical programmes of information literacy."

The curriculum integrated approach to user education has been widely accepted as the alternative for in academic libraries (Virkus & Metsar, 2004; Cooke et al. 2011; Gretter & Yadav, 2016)

### 4.3.8.6 Network problem

One of the respondents lamented about the slow internet connection in the library and had this to say:

"Try by all means to improve the network in the library. I mean, Wi-Fi, sometimes we want to do assignments in there but the network is too slow."

Slow internet connection has always been a problem and hindrance to full access of information in academic libraries in developing countries. The study by Okite-Amughoro,

Makgahlela and Bopape (2015) state that "post-graduate students' optimal use of EIRs at Delta State University, Abraka in Nigeria, is hampered by limited access to some EIRs due to limited space, low bandwidth, and erratic power supply". Other studies that showed similar challenges in developing countries, more especially in Africa, include Chisenga (2006), Abubakar (2012), and Echezona and Ugwuanyi (2010).

### 4.3.8.7    *Adequacy of use education programmes*

From the responses below, it is shown that the respondents are positive about the adequacy of user education programmes at the UL. Below are some of the comments made by the respondents on the adequacy of user education programmes.

"They are helpful and make people's lives easier and better in accessing library."

"It's very informative; keep up the good work."

"Everything is well put and they must keep up their good work."

"Education programmes at UL are very useful; they helped me a lot."

"User education is the best experience for learning."

"User education programme was effective."

"It is quite informative, especially to people who deal with researches and those who are new, like first years."

"With their tutorials, I'm able to write research proposal and know how to reference, which is very useful to me as a fourth level."

Looking on the behaviourist and perception theories on which this study is based, these results show that user education programmes in university libraries have a positive impact on the behaviour of students towards the library. Most of the student participants showed that they experience some change in their behaviour towards information and library services. Similarly, the results of the study conducted by Liu, Lo and Itsumura (2016) showed that most of the student participants regarded library user education as an important part of their formal academic learning. Therefore, library user education programmes empowered them with the necessary skills and competencies to make the best and optimal use of the available resources and services. The findings of this study were also helpful in identifying the different learning needs amongst the students, as well

as other barriers that were preventing the library user education programmes to be incorporated into students' overall learning, and the universities core curriculum as a whole. Uwakwe, Oneyeke and Njoku (2016) discovered that Imo State University law students have understanding of the concept of library user education programme that they attended and also reveals that user education programme has positively impacted the law students' usage of the library and improved on their academic performance. The study identified some problems that hinder effective user education as over population, as lack of infrastructure, inadequate and trained personnel, lack of instructional materials, limited time allocated to the programme, unconducive environment and inadequate space. The study conducted by Molepo and Bopape (2018) on the Tshwane University of Technology students "found that most of the first-entering students had no skills in using library resources and were not familiar with library resources before they attended the ILE programme. However, the findings from the focus group interviews after showed that, after they had attended the ILE session, they became familiar with some of the library resources, and their abilities to use those resources positively improved from novice to advanced and proficient users of information"

This study further showed that students were satisfied with the services they receive from the library at the UL. Stamatoplos and Mackoy (1998) found that satisfaction with library user education "appeared to be related to student perceptions of information accessibility, staff competence and helpfulness, computer usefulness and ease of use, and skill level for using libraries". These perceptions are also visible in the current study in that good work by academic librarians, their helpfulness, the programmes' usefulness, effectiveness, and informativeness, are evidence from the respondents' responses when asked about the adequacy with of user education programmes. "The study suggests that libraries may be well served by measuring patron satisfaction and learning what variables drive satisfaction at particular libraries" (Stamatoplos & Mackoy, 1998).

## 4.4 INTERVIEW RESULTS

The UL library has 10 library staff responsible for user education in which the researcher intended to interview. However, eight (8) out of ten (10) library staff members managed to participate in this study, which made up to 80% of the population. Only two (2) could not participate due to personal reasons. Since participation in this study was voluntary, the researcher could not force the other two library staff members to participate because the researcher was guided by the University of Limpopo research policy which indicates that participants have a right to refuse to participate and should not be blamed or punished.

### 4.4.1 The structure and content of user education programmes that the library adopted

The respondents were first asked which user education programmes their university library had adopted. According to responses from librarians, the UL library has adopted the following user education programmes, which are categorised into themes that emerged from these responses: library orientation, one-on-one training, bibliographic instruction, information literacy, library tour, library guides, brochures, and online tutorial video.
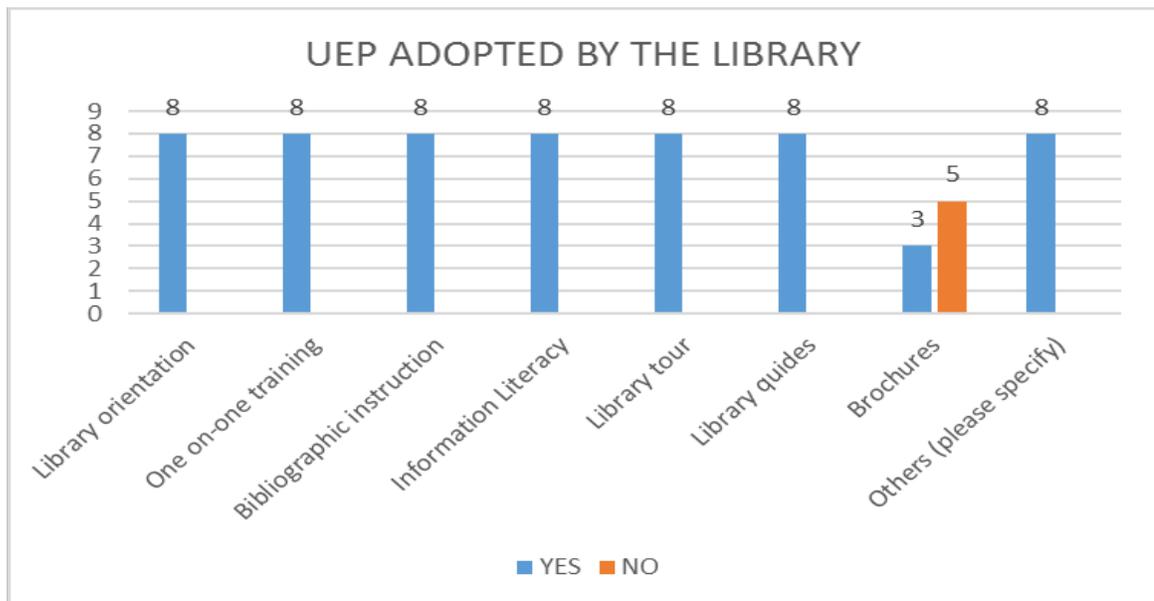


Figure 4.7 UEP adopted by the library

It was important for this study to determine and assess the user education programmes that the UL academic library provides to its users. The results reveal that with the brochures, not all the subject librarians are aware that they are part of the user education programmes. All participants (100%) showed that they provide library orientation, one-on-one training, bibliographic instruction, information literacy, library tour and library guides as part of educating users about the library. However, five (63%) respondents showed that they do not use library brochures as opposed to three (37%) who said they use brochures. Other library user education programmes provided in the library included the Library Catalogue Tutorial Video that provides a step-by-step process on how to use the library catalogue.

The subject librarians highlighted that the marketing of user education programmes is done through library brochures, the library website, and word of mouth. One of the subject librarians acknowledged that "the marketing tools used to promote user education were not successful; this was shown by the poor attendance during the user education sessions". Although there is no evidence of the direct relationship between marketing and poor attendance, it is interesting to note that the subject librarians perceive a link between the two variables.

4.4.2   Structure and content of user education programmes

In order to solicit information about the structure and content of user education programmes at the UL, the respondents were asked about the audience at which the programmes are intended.

Library orientation: All participants agreed that library orientation is conducted. One librarian (participant # 4) said that "This programme caters for every new student (undergraduate and post-graduate) and new staff members of the institution." These sessions are conducted by subject librarians and are designed to introduce students to the wealth of resources in the library and reinforce their research capabilities. Sessions contain both paper resources and electronic resources. In a computer classroom setting, the library orientation is taught, offering students hands-on experience. "The scope of

library orientation ranges from fundamental library layout guidance to more formal, structured and systematised instruction or training programmes for the effective and efficient use of information resources, equipment and retrieval systems" (Kannappanvar & Swamy, 2012; Tiefel, 1995).

One-on-one training:   Although all participants said that they also offer one-on-one training, one of the participants had this to say. "The programme caters for everyone who have the need for a one-on-one session be it first entering student, returning students or staff members and they simply arrange it with their respective subject librarian" says one of the librarians (participant #1). These sessions are conducted by subject librarians and are designed to serve the needs of the users, be it students or lecturers. Roberts and Levy (2005) suggest that the librarian is an educator whose "role encompasses educational design, facilitation, development and innovation". In their opinion, librarians are "facilitators of active, critically reflective learning, whether the focus is directly on developing students' information literacy or more broadly on designing and supporting information interactions and environments that will help catalyse students' engagement with their academic discipline".

Bibliographic instruction: Bibliographic instruction is also said to be offered at UL by all participants. Participants #5 and #7 mentioned almost the same sentiment that "the programme also caters for every one of the registered students who has an interest. They simply enlist their names and attend on the specified dates in manageable class numbers." "Its goal is to teach users how to search, evaluate, and use information and how to use the library effectively and independently", said participant #4, while participant #3 said that "Its objective is to educate library users on how to efficiently and independently search, analyse and utilise data as well as how to use the library."

This shows that the library's traditional function in teaching and learning is evolving. While early bibliographic educational programmes focused on finding information in a specific library environment, today's objective is to educate clients in how to tap into any source of information. These sources of information are mostly in the form of machine-readable

files or databases containing collections of bibliographic citations, document summaries, or full-text articles. Formats include periodic and newspaper articles, but also publications from the government, study reports, conference papers, theses and dissertations, as well as meetings proceedings. Fields covered range from the physical, health and life sciences to the social sciences, arts, and humanities.

Information Literacy: "This is a programme specifically designed for first level students" said participant #1, while participant #6 said that "Currently, this is offered to all first-level students in the Faculty of Science and Agriculture as well as in the School of Social Science and School of Languages and Communications under the faculty of Humanities." "These sessions are meant to equip users with the ability to be able to recognise when information is needed and have the ability to locate, evaluate, and effectively use the needed information" said participant #2. Virkus (2003) claims that information literacy programmes are the backdrop of information literacy among postgraduate students in universities and other academic organisations. Where there is an efficient information literacy programme incorporated into the curriculum and integrating librarians and faculty cooperation, postgraduate learners are far more likely to be information literate. Virkus (2003) states that: "information literacy programmes in the universities need to be supported by a well-developed information infrastructure in the university library, and communications network. Its enforcement is also enhanced by an assessment policy or information literacy enforcement body in the university, or library and information professionals' body in the country. Information literacy programmes in universities are also influenced by employers' information literacy expectations from the students, and by information literacy programmes in the faculties and the universities libraries".

Virkus and Metsar (2004:98) points out that "different approaches have been used to develop information literacy among students. For example, developing a guide for students to use or for resource evaluation, presenting a class session, creating a course web site giving students a guided tour for searching the web, developing an assignment where students work on a search strategy appropriate to a problem statement, assigning students in presentation of their literature reviews, developing online tutorials or

integrating information literacy into curriculum." Aderibigbe and Ajiyibode (2011) note that "prior to librarians planning user education programmes, they should determine the information needs of users, and then determine how much users know about information organisation, access and use".

Library tour: Participant #1 said that "This is meant for anyone interested in knowing the library; be it new students, new staff members or even prospective students who come during the annual open week." The library is a complex organisation with a lot to offer students, researchers and staff through its services, facilities and staff expertise. Participating in a tour of the library gives users a better idea of support available that can greatly benefit their study and research during their time at the university.

Library guides: Participants #4 and #8 said that "These are subject specific and the audience would vary as per subject librarian." "LibGuides are a content-management and information-sharing system designed specifically for libraries. The platform allows for easy navigation through and instruction on core and relevant resources in a particular subject field, class, or assignment. By clicking on the links provided, the user is able to access information about the library. Furthermore, this platform effectively invites collaboration between librarians and instructors to meet the research needs of a particular department, class, or assignment" (University of Pittsburgh 2018). Yelenic, Neyer, Bressler, Coffta, and Magolis (2010: 353) wrote: "LibGuides is an easy-to-use, Web 2.0 information management and Web publishing system that does not require a high level of technology expertise to create Web pages. It combines Web development tools, such as HTML editing software with wikis, blogs, RSS feeds, Web-based videos, and other social networking tools, into one package designed specifically for librarians with or without Web design expertise".

Brochures: "The audience for brochures varies as well, depending on what they were created for; for example, the medicine students from Cuba have one that was specifically created for them. This simply means that information in the brochure is only relevant to the medical field as it's referred to as library and information service brochure for returning

Cuban doctors." This was said by one of the librarians, participant # 7. Others (online video tutorial): "This is a library catalogue video tutorial that is available on the university webpage meant for everyone."

### 4.4.3   Who delivers the content of user education programmes?

For more information about the structure of user education programmes at the UL, the respondents were also asked about who is responsible for delivering user education programmes at the UL. "The user education programmes at UL are delivered by the subject librarians" (participant #4). Participants #2 and #3 mentioned almost the same idea that "They are the ones that develop the course outline, the content, method of delivery and the assessments". The user education librarian is responsible for leading the team." This was mentioned by participant #7.

Roberts and Levy (2005) "consider the librarian as an educator whose role encompasses educational design, facilitation, development and innovation. In their opinion, librarians are facilitators of active, critically reflective learning, whether the focus is directly on developing students' information literacy or more broadly on designing and supporting information interactions and environments that will help catalyse students' engagement with their academic discipline". Subject librarians are affiliated with each academic department or programme. The subject librarians provide coordination between the university libraries and the faculty and students in the university's academic departments. The librarians who serve as subject librarians are members of the academic faculty and play a pivotal role in the selection, acquisition, and maintenance of the resources provided by the university libraries. To do so, they must be able to evaluate information resources in all formats and prioritise user needs. They must also understand the scholarly communication process and the library's role in the information marketplace. The range of their responsibilities is outlined below. Subject librarians help students learn to use the university libraries' collections and services. They participate in user education at the reference desk, in one-on-one consultation with students, and as guest lecturers in the classroom. For their assigned subjects, subject librarians author and maintain internet resource lists as well as print and internet guides to research and information resources.

They may also serve as instructors in the information literacy courses taught by the university librarians and may work with academic departments to develop information literacy classes focused on their specific needs .

4.4.4  The content covered in each of the user education programmes

Library orientation: "Orientation programmes offer a brief introduction to the services available to enable students to be confident in using library resources" (participant # 5). "The orientation programmes further inform library users about the sections of the library and how to access the various collections at the UL main campus library in particular and UL libraries in general" (participants # 6 and # 8). "Overall, these programmes offer more basic and directional information about the library and its information services and resources. It is an introduction of library information sources and services" (participant #4)

Information literacy training: "Information literacy is the ability to identify, locate, evaluate and use information in the correct manner. It develops students to be critical thinkers and increases their ability to read and analyse information to become independent information users. The training modules covers the structure of the book, online catalogue, periodicals, electronic resources (databases and institutional repository), reference materials, plagiarism and copyright."

One-on-one training: One subject librarian, that is participant # 4, said that "During the one-on-one session, aspects covered depend on the user; so, in essence, we can say this covers everything that the user may need help with."

Bibliographic instruction: "Advanced library orientation (bibliographic instruction) it is offered to senior students and interested academic staff members throughout the year." (participant 1).

Library tour: "This is an organised small group tour of library study spaces, including 24/7 spaces and facilities for students (Lapologa)". This was said by participant #5. "Talk about

services for students and researchers, followed by a tour of some of our facilities such as the electronic rooms and the computer labs." "The target groups for the tours are first entering students, the new staff members, the community, school groups during open week or at times that they have arranged with the library management." (participants #2 and #3.

Library guides: "This covers subject related aspects relevant to that specific field." (participant # 1).

Brochures: "They are made to cover specific information that the subject librarian would want them to access. For example, the library and information service brochure for Returning Cuban Doctors" (participant #7). "It is meant for the medical field and covers databases, e-books, and print resource locations in the university library as well as Mankweng and Polokwane hospital libraries."

Online video tutorial: "The library catalogue video tutorial covers how to access and utilise the library catalogue effectively." (Participant # 6)

## 4.4.5  Problems or impediments experienced in terms of current user education programmes

One of the objectives of the study was to examine the problems experienced by subject librarians in terms of user education programmes. The participants generally expressed their challenges for user education which have been categorised under the following themes:

### *4.4.5.1  Insufficient time allocated to training*

Most of the respondents complained about the time allocation for user education programmes. Participants #6 and #8 said that "There is insufficient time allocated to training, as the sessions are not included in the university general class timetable." "Lack of time makes it difficult to arrange properly as timing is not specified." Hoskins et al.

(2015) found similar results when students revealed that the time allocation for these sessions was not sufficient enough. "Based on the academic level of students, their needs and the level skills, the amount of information available, as well as the intricacy of information technologies, the allocated time might compromise the depth and sufficiency of content in the training programmes" (Hoskins, Dube & Moyane, 2015)

## 4.4.5.2    Venues

"The venues for sessions are problematic as the labs for training are to be applied for in advance and each lab with the capacity of one hundred students, if the lab is not booked in advance that affects the class as there won't be a venue for that session." This was mentioned by participant #2. According to Eze (2004):

> "factors militating against user education are not far-fetched, including insufficient funds, insufficient number of computers, lack of computer appreciation among librarians, teachers and students, absence of properly developed curricula, lack of infrastructure generally and lack of enabling policy environment".

Haliso (2011) laments "the inadequate computerisation and inadequate infrastructure as the major challenges towards ICT use in academic libraries".

## 4.4.5.3    Inaccessibility of social media tools

One of the librarians (participant #4) had this to say:

"Students stated a preference for social media platforms for information about user education. The challenge with this is that social media platforms are inaccessible during working hours, making it difficult for the staff to post in those times. The other issue would be students having to access the social media platforms after hours, which is not convenient for most students. In essence this makes marketing user education programmes problematic." These results reflect that the dominant forms of communication are oral or personal modes (friends or colleagues, lecturers or supervisors, and subject librarians). In an era dominated by the use of social media – Facebook and Twitter being popular with the majority of students – the use of social media tools as a means of communication needs to be developed. The alignment between the communication or marketing tools and the reality of the user cannot be overemphasised because, if there is a gap between the two, it is likely that the message would not reach

the intended recipient. Aguolu and Aguolu (2002) also identify students' interest in library instruction as a factor for the success of the programme in academic institutions. Therefore, librarians should encourage the students and adopt viable methods that will improve students' interest in the programme. Library instruction is an effective means of educating the users and creating awareness of available information resources in the library.

Therefore, "viable methods and media such as "ask a librarian", library blog, library website, social media, text messaging, emailing, and radio broadcasting should be explored" (Omeluzor et al. 2017). Buriro et al. (2018:33) reveal that respondents have shown helpful behaviour regarding the effectiveness of social media marketing of library resources and services. Respondents believe that social media is necessary for online users to market library resources and services. In the 21st century, it is easier to market the library with the help of social media and not just traditional library service marketing.

Furthermore, Morgan, Saunders and Shrem (2013) note that providing students with technologies that would be seen as relevant to their lives as well as creating applications for research databases on personal devices of students which can also access student-published academic journals and newspapers should be made mandatory. By so doing, academic libraries not only seek to engage students in their learning, but also to create an environment for students that motivate them to engage in their learning. With the assistance of the social media librarian, many communication paths can be created. Social media also plays a very important role for distance learning sharing of the knowledge for users.

### 4.4.5.4    *LibGuides not going live*
One of the challenges related to the provision of user education at the UL library is about LibGuides. Some participants (participants #1 and #8) showed that:
"Challenge of LibGuides not going live, this simply means the subject librarians after creating the LibGuides, they have to share the link themselves. The ideal situation would be that upon completion of the LibGuide, it will go live and be made available on the

university web page under the library menu." According to Sharma and Singh (2005), "library management is a sub-discipline of institutional management that focuses on specific issues faced by libraries and library management professionals". The management has the role of supporting the library and its librarians to ensure the smooth running of the library.

*4.4.5.5      Low attendance of user education training by undergraduate students*
"The major problem is that some of the faculties, namely, Faculty of Heath Sciences and the Faculty of Management and Law rely solely on the orientation programme which is not enough. This results in a relatively low attendance of user education training by undergraduate students as those students don't attend information literacy classes. In the Faculty of Humanities, the School of Education is also not enrolling their students for Information literacy." Librarians and faculty members are both essential to the effectiveness of library user education on the campus. "Obviously, the user education programme will be more successful if all educators and information providers work together and take shared responsibility. An effective user education programme relies upon co-operation between information specialists and discipline experts to achieve curriculum innovations which foster information literacy" (Bruce 1994).

"Librarians need to actively collaborate with academic staff to develop, plan, implement, and evaluate user education programmes through curriculum design. Even though librarians recognise the importance of library-faculty collaboration and attempt to facilitate it, we have seen more failure than success" (Badke, 2005). Langley, Gray and Vaughan (2006) point out that "these librarian-faculty collaborations can be challenging because the participants often have less in common, beyond an interest in library affairs, and perhaps subject knowledge". In other words, "we exist in a context that is typified. Faculty do not respect the roles of librarians, and librarians view faculty as arrogantly ignorant of the functioning of the library, its personnel and its tools" (Badke, 2005).

### 4.4.5.6 Insubstantial partnerships between stakeholders

"The other impediment is the insubstantial partnerships between stakeholders (academics and students) and the library. If the partnership was substantial, then the academics would better motivate the students to attend the user education programmes and librarians to offer more subject specific content based on their modules.", said participant #3. One participant (participant #4) specified that "it is important for academics to familiarise themselves with the information resources provided in the library so that they can transfer the knowledge and skills acquired to the students". Some of the respondents also indicated the importance of cooperation between the students, subject librarians and academics to enhance user education attendance by undergraduate students. Meulemans and Brown (2001) state that, for librarians to provide effective user education to students, they should be partners with academics and students.

There is no doubt that all employees, including academic faculty, librarians, IT professionals, and administrators, are required to implement a successful user education programs. Academics, librarians and students should be included in these programs (Schloman, 2001; Scales, Mathews & Johnson, 2005). "Collaboration has been affirmed by the Australian Working Party on Library Provision in Higher Education (National Board of Employment, Education and Training, 1990) which reported that close cooperation between teachers / academics and librarians is necessary for the training of library users in higher education". "Lecturers provide the background, whereas librarians have a teaching role that focuses on information and the skills required to view and use it. It is also important to consider the implications of resources when designing the program. The programmes fall short of empowering them to become their own gatekeepers and liberated and autonomous consumers of knowledge "(Aderibigbe & Ajiboye, 2011; Coonan, 2011; Hindagolla, 2012; Ogunmodede, Adio & Odunola, 2011). In this regard, the librarians gave suggestions as to how the library could improve user education programmes:

- "The library should contact academic departments to synchronise user education training with postgraduate activities.

- Time allocated for user education should be extended, be included in the university timetable and made flexible to accommodate students' needs.

- User education programmes should be compulsory for undergraduate students to prepare them for postgraduate studies in terms of adequate information searching and retrieval skills.

- Given that two faculties are not involved in availing their first-level students for user education, the library should offer the deans and the heads of departments within those faculties information on the benefits and disadvantages of not making it compulsory for their students to attend user education training".

## 4.5   RESULTS OF WEBSITE CONTENT ANALYSIS

The main reason behind the analysis of the UL library website was to establish if there are any user education programmes or resources uploaded or advertised on the website. The results of content analysis of websites revealed that although most of the subject librarians lamented about the LibGuides not going live, it was at a later stage discovered that there is a presence of those LibGuides on the library website. This means that during the data collection process for this research, the LibGuides were not yet uploaded on the library website, only to be uploaded when the content analysis of the UL website was conducted. Therefore, it has been discovered in this study that the user education programmes have their presence in the library website. The results of this study found that this is done through the subject LibGuides Figure 4.8 shows a screenshot of the UL library subject LibGuides, arranged alphabetically by subjects.
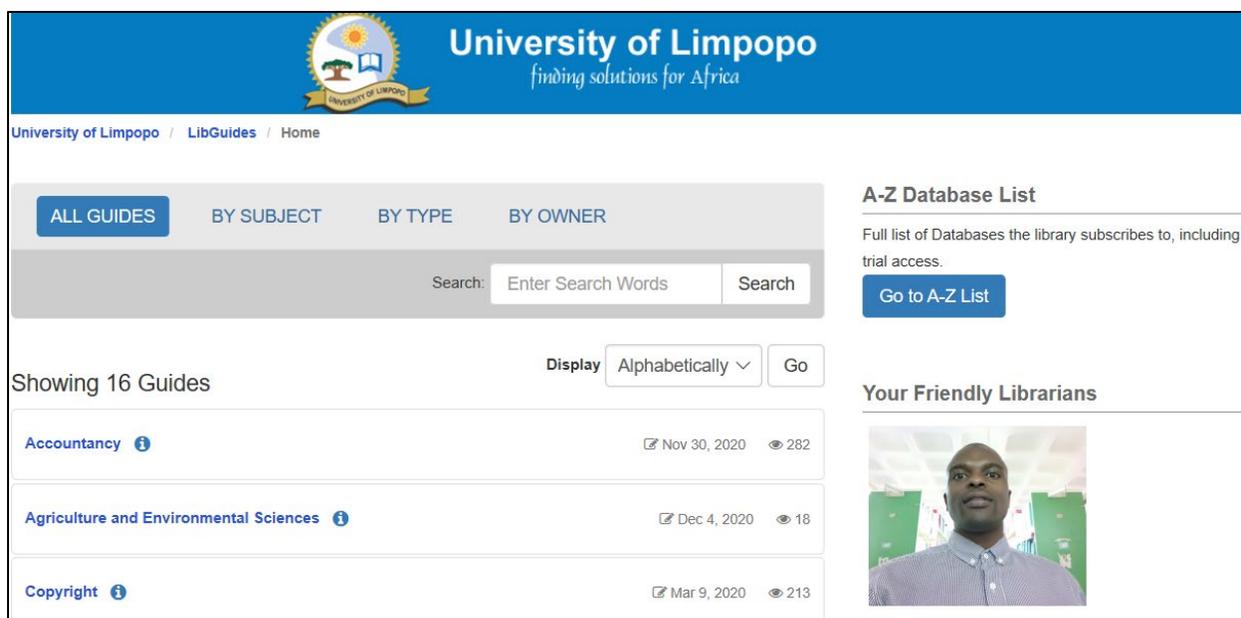
Figure 4.8. UL library LibGuide

Miner and Alexander (2010) view the subject LibGuides as an effective method for teaching Information literacy and enhancing students 'research skills. They are a valuable tool in the dissemination of information (Mooney, 2012). A survey carried out by Rhodes and Chelin (2000: 59) investigated the use of the World Wide Web "for user education in 68 UK university libraries and it was found that three-quarters of the libraries surveyed make use of the Web for this purpose. Just ten percent of user education is delivered solely via the Web, but libraries indicated that use will grow in the future. It was found that greater use is made of the web for information skills training than for library induction" Similarly, Yang (2009) provides the findings of a survey of the current web technology application used for creating information literacy online tutorial in academic libraries and found that almost one third of the academic libraries surveyed have developed their own tutorials using tutorial software, and that most of the tutorials teach users information search skills for specific databases. The contents of three tutorials also included information on general introduction to library resources, research in specific area, as well as library-related concepts and procedures. Miller (2015) compares two versions of online information literacy tutorial – one built on LibGuides and the other one built on a series of

web pages. The main aim of the study was to determine if either of the platforms (LibGuide and web based), provide a sound pedagogical advantage in delivering online instruction. The overall Reponses showed that students who accessed and viewed the LibGuide tutorial performed better that those who viewed the web-based tutorial.

The purpose of the information contained in all the library website is to market the programmes and services provided by the library. Library user education programmes are among some of the services to be marketed on the website. It has therefore also been found that the purpose of the subject LibGuide on this website is to advertise user education programmes such as bibliographic instruction and information literacy sessions designed for specific subject. As an example below the LibGuide for Social Science on the UL library website. Inside the content of every subject LibGuide, there is heading on training, which is used of advertising the BI programme offered by subject librarians. The information reads as follows:

> "The Library is embarking on Bibliographic Instruction (BI) programme that will run throughout the year. BI is an instructional program designed to teach Library users how to search and retrieve the information they need quickly and effectively. The training covers the Library's system of organising materials, and specific resources and finding tools such as **Library catalogue**, **Library Subject databases**, and RefWorks (Reference organising tool). The training is very essential for the production of high quality research and therefore, amongst others, the training aim to achieve the following objectives
>
> - To train Library users to be independent in searching information
> - To learn new skills and strategies to make effective use of online information
> - To identify research aiding tools that offer the most comprehensive resources for research literature.
> - To locate peer reviewed journals that meet academic quality norms.
> - To locate scholarly journals licensed from many of both local and international most prestigious academic publishers.
> - To empower students with self-confidence to become lifelong learners.
> - To enhance the quality of students' academic work.
> - Receive answers to any challenge they might be experiencing in the use of the Library"                                                    (UL LibGuides ©2020)

Then follows the dates and times on which training is takes place the contact details of subject librarians. Apart from a general invitation for library users to register for BI, there is also a poster for advertising the such programmes. This is shown clearly in Figure 4.9 on the next page.

Figure 4.9: Poster for training advertisement

Therefore, LibGuides have proven themselves as great marketing tool (May & Delgado, 2010). Leibiger and Aldrich (2013) contends that contemporary research on new information technology tools and systems view LibGuides as text that communicate of liaise with library users and further as facilitators of information sharing from librarians to may users. In addition, the are some documents uploaded on the subject LibGuides to guide students on writing skills, referencing and information searching skills as shown in figure 4.10.
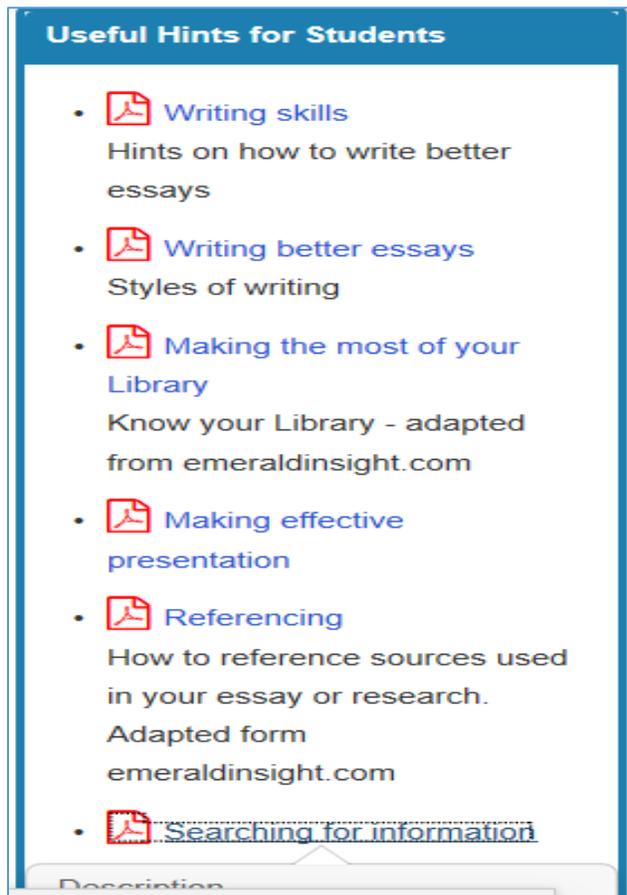
Figure 4.10. Documents uploaded to guide the students

4.6.  SUMMARY

This chapter presented data analysis and interpretation. The results reveal that students at the University of Limpopo perceive the library user education in their institution as adequate. Students expressed the need for improvement in the timing of the user education programmes. The results further indicated that students find that the library user education improved their use of the library, created an awareness of what library materials are housed in the library as well as the databases that the library is subscribed to and ways in which they can access those databases. They revealed that information literacy should be made compulsory for all first entering students while the subject librarians hold the same view. They also revealed that faculties that are not enrolled for

some of the programmes need vigorous marketing for those programmes to attract voluntary attendance as they are very useful but awareness is limited. The results also showed that the library staff want their partnership with the faculties strengthened as it would benefit the students greatly.

# CHAPTER FIVE
## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.1    INTRODUCTION

This study investigated final year students' and library staff 's perceptions of the adequacy of user education programmes at the UL. The study used both questionnaire and the interviews to collect data from final year students and librarians respectively. This chapter summarises the main findings, draws conclusions and provides some recommendations which may help to improve the delivery of user education programmes UL. The summary, conclusions and recommendations are aligned to the objectives of the study which were to evaluate / assess perceptions of final-year students at the University of Limpopo on the adequacy of library user education programmes; to describe the structure and content of library user training programmes; to examine the extent to which the user education training sessions improved students' use of the library and its resources; and discover the impediments to user training in the UL library.

It has generally been discovered in the literature review that most of the user education programmes described in the literature review also take place at the UL library. The library offers library orientation at the beginning of each year. Every student from first to final year can also attend bibliographic instruction. It also offers information literacy, faculty-specific user education and impromptu assistance from subject librarians and other library staff to students who come to the library for help. Below are the findings in respect of the adequacy of those user education programmes

## 5.2    SUMMARY OF FINDINGS
### 5.2.1  Findings on user education programme attendance

The findings revealed that, although the levels of awareness about user education and the realisation of the importance of user education are high among students, they do not translate into a high uptake of user education training programmes (which was 59% of those who responded to the questionnaire for user education sessions). The statistics revealed that, contrary to the positive assertions made by students about user education, the attendance of user education initiatives is fairly average.

5.2.2  Findings on reasons for not attending the user education programmes

Interestingly, the reasons why students do not take part in library user education programmes is similar for most students. The results show that: (1) "Not being aware or well informed of the details of the user education programmes except library orientation", (2) "I do not know when these user education programmes are conducted", (3) "I was not obliged to attend" and (4) "I did not have time as they always clash with my class time" are the main reasons. Furthermore, most of the students agree that "I was just not interested at all" is one of the reasons that they do not join the library user education programmes. However, this study has touched on, and emphasised important aspects, such as having a credit-bearing, compulsory information literacy programmes introduced at the university.

5.2.3  Findings on the library user education programmes respondents attended

The findings revealed that the majority of students attended the library orientation which is where larger groups of students are available as classes have not yet commenced. While with information literacy, Turnitin, library tour, bibliographic instruction, RefWorks, online library handbook and tutorials, the numbers decline as those are offered during the course of the year when classes are ongoing.

5.2.4  Findings on the impact of library user education attendance

The findings indicated that the majority of the students are in agreement that the user education programmes had a constructive impact on them as it turned them into regular library users, familiarised them with the library resources/services, introduced them to relevant databases, taught them how to search and locate materials.

### 5.2.5 Findings on the usefulness of library user education

It has been revealed that the majority of the students perceived the library user education programmes as informative and useful therefore adding a great deal of value to their education. Students also remarked on the programmes as having been well planned to enhance their academic performance. Students also have great faith and trust in the library's user education programmes provided in their institution and are willing to encourage others to attend.

### 5.2.6 Findings on the structure and content of user education programmes at the UL

The subject librarian indicated that the UL library provides library orientation to all new students at the beginning of each year. Orientation programmes offer a brief introduction to the services available to enable students to be confident in using library resources. The orientation programmes further inform library users about the sections of the library and how to access the various collections at the UL main campus library in particular and UL libraries in general. Overall, these programmes offer more basic and directional information about the library and its information services and resources. The programmes are organised by subject librarians or the user education librarian. Subject librarians are of the view that this is just not enough.

The library orientation programmes are offered at the beginning of each year, and are held over sessions of a few hours each for the different groups. The sessions are largely interactive, with users being offered hands-on training where they are required to follow examples of searches retrieved from databases using the library catalogue. These orientation programmes are supplemented by bibliographic instruction and information literacy programmes which are held throughout the year. Bibliographic instruction programmes cover in detail areas such as the navigation of the library website, use of e-resources (e-books, e-journals, and e-databases), availability of general library services, and guides to important national and international resources. These programmes involve working on a specific subject area where teaching is based on examples from within the discipline. One of the most popular requests is for Turnitin training.

The findings of the content analysis of UL library website found that although the were some links to some user education document and advertisements, there were no online user education tutorials or interactive user education courses on the UL library LibGuides.

### 5.3.7 Findings on challenges encountered in providing user education at UL

Amongst some of the findings regarding the challenges encountered in providing user education programmes at the University of Limpopo library are insufficient time allocated to the user education, insufficient venues which are always full where librarians have to book in advance, inaccessibility of social media, low turnout by students and lack of partnership with the stakeholders.

## 5.3 CONCLUSIONS

The conclusions are in line with the summary of the findings and are based on the objectives of the study.

### 5.3.1 Conclusions on user education programme attendance

This level of uptake can in some measure be attributed to the ineffectiveness or insufficiency of marketing tools used to promote user education. Marketing is mostly oral or conventional (i.e. through email brochures). Students also mentioned that they preferred social media platforms for information about user education. Similarly, the time allocated for and timing of user education programmes can be a contributing factor to low attendance levels. Some students conceded that they are still reliant on the subject librarian for searching for information from the library. This level of dependency runs against the grain of education which upholds autonomy, self-reliance and life-long learning.

### 5.3.2 Conclusions on the reasons for not attending the user education programmes

The respondents indicated the following reasons for not attending the UEP: (1) not being aware of any user education programmes offered by the library, (2) lack of interest, (3) they do not have time to attend any of the user education programmes offered by the

library, while (4) others said it was not necessary for them to attend the UEP as they read the library brochures and browse through the website for guidelines on all the information they need.

### 5.3.3  Conclusions on the Impact of library user education attendance

It has been concluded that the majority of the students are of the view that user education programmes had a positive impact on them as they turned them into regular library users, made them aware of the library resources / services, introduced them to relevant databases as well as taught them how to search and locate materials. The user education programmes are therefore seen as adequate by the UL final-year students.

### 5.3.4  Conclusions on the usefulness of library user education

There is a general feeling from the students that the programmes are of paramount importance and are well planned.

### 5.3.5  Conclusions on the problems or impediments experienced in terms of current user education programmes

The study reached a conclusion that there is insufficient time allocated to training, the venues for sessions are problematic as the labs for training have to be booked in advance, while the other impediment is the insubstantial partnerships between stakeholders (academics and students) and the library.

Since the needs, for instance, of a student in physics vary from those of a student in social sciences, information literacy programmes should be oriented and subject-focused. Likewise, a first-year student's needs aren't necessarily the same as a PhD student.

### 5.4  RECOMMENDATIONS

Based on the findings of this study the researcher proposes the recommendations below.

### 5.4.1 Recommendations on user education programme attendance

Although the study reveals that students hold positive perceptions of the library user education, the library has to continue working hard to maintain and sustain those perceptions. It is therefore recommended that the library should market UEP in order to reach out to the large number of students who are not aware of the programmes. The study suggests that the library should establish a social media platform where students will constantly be updated on user education programmes and engage the subject librarians. This will help the library to detect early signs of dissatisfaction and changes in the perceptions of students.

### 5.4.2 Recommendations on the reasons for not attending the user education programmes

The study recommends that there should be a credit-bearing and compulsory information literacy programme offered as part of the curriculum at the first level of study in the university since it was established that the majority of students do not attend information literacy and library orientation programmes.

### 5.4.3 Recommendations on the impact of library user education attendance

Library user education is, no doubt, an important part of an academic library's service, as it guides both students and faculties to become better informed and more effective library users, thereby allowing them to make the best use of library resources available. User education among academic libraries could be offered in a number of ways, such as library orientations, library tours, database instructions (with hands-on exercise), information literacy courses, and more.

### 5.4.4 Recommendations on the problems or impediments experienced by subject librarians in terms of current user education programmes

Library should make user education training compulsory for all faculties, and provide them with instructional material to present to students as suggested by respondents that all first-year students should attend user education classes. The School of Education within the Faculty of Humanities and the Faculty of Health Science and the Faculty of

Management and Law as they are not enrolled for information literacy should be engaged so as to get them on board. The study recommends that the library should make collaborations with both students and academics to strengthen the relationships and communications among them. The respondents raised issues of Wi-Fi connectivity (eduroam) being problematic within the library so the recommendation would be that the university ICT division keep students and staff on the ICT developments as they affect the entire university community.

## 5.5    RECOMMENDATIONS FOR FURTHER STUDY

The researcher recommends that further study would be needed to determine perceptions of faculty members towards library user education so as to identify high-quality approaches which would strengthen collaborations with different faculties in library user education so that user education could be integrated into the core or formal university curriculum as a whole.

## 5.6   SUMMARY

Chapter five presented the summary, conclusions and recommendations for this study. The summary, conclusions and recommendations for both the UL library users and library staff were discussed and these discussions were aligned with the objectives of this study. The recommendations for librarians at various universities were given as follows. First of all, the education of library users should be kept not only universal, but also dependent on the requirements of individual faculties and courses. Secondly, to promote the library closer to the daily lives of students in order to attract the interest of students. Thirdly, there is a need for collaboration between librarians and faculty, libraries and student committees to integrate library user education into the general teaching of students and the university community's educational operations.

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# APPENDIX A

## QUESTIONNAIRE FOR FINAL YEAR STUDENTS

Please make a cross (X) in the appropriate box.

## SECTION A: FACULTY ATTACHED TO

1. Faculty

| | | | |
|---|---|---|---|
| 1.1. | Faculty of Health Sciences | |
| 1.2. | Faculty of Humanities | |
| 1.3. | Faculty of Science And Agriculture | |
| 1.4. | Faculty of Management and Law | |

2. School: _____

## SECTION B

3. Have you attended any of the formal User Education programmes offered by the library?

| | | |
|---|---|---|
| 3.1. | YES | |
| 3.2. | NO | |

4. If NO, why did you not attend any of the formal User Education programmes offered by the UL library (Choose one answer below) and stop answering further questions.

| | | |
|---|---|---|
| 4.1. | I was not aware of any User Education programmes offered by the library | |
| 4.2. | I was just not interested | |
| 4.3. | I did not have time to attend any of the library User Education programmes | |
| 4.4. | I was not obliged to use library materials | |
| 4.5. | I just read the library brochures and library website | |
| 4.5. | Other (Please specify) | |

5. If YES, which of the following User Education programmes have you attended during the period that you have been in this university (Choose many as it applies).

|  | User Education Programme | Yes | No |
|---|---|---|---|
| 5.1. | Library Orientation |  |  |
| 5.2. | Use of Library |  |  |
| 5.3. | Bibliographic instruction |  |  |
| 5.4. | Library tour |  |  |
| 5.5. | Online Library Handbook |  |  |
| 5.6. | Tutorials |  |  |
| 5.7. | Information literacy |  |  |
| 5.8. | RefWorks |  |  |
| 5.9. | Turnitin |  |  |
| 5.10. | Other please specify |  |  |

6. To what extent do you agree or disagree with the following statements regarding your library behaviour after undergoing User Education programmes at the UL library? Use the following scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Agree; 4 = Strongly Agree

|  | ITEMS | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| 6.1. | Turned me into a regular library user |  |  |  |  |
| 6.2. | They made me aware of available library resources/services |  |  |  |  |
| 6.3. | I know which databases to search when faced with an information query |  |  |  |  |
| 6.4. | I now know how information materials in the library are organised |  |  |  |  |
| 6.5. | I can now use the library catalogue and other information retrieval tools |  |  |  |  |
| 6.6. | I am now able to evaluate information |  |  |  |  |
| 6.7. | I am able to select relevant information sources |  |  |  |  |
| 6.8. | I can now use information effectively without plagiarising |  |  |  |  |

7. To what extend do you agree or disagree with the following statements about the adequacy of User Education programmes at UL. Use the following scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Disagree; 4 = Strongly Agree

| | ITEMS | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| 7.1. | User Education programmes were very informative and useful | | | | |
| 7.2. | Everything regarding the library was covered | | | | |
| 7.3. | User Education programmes at UL are well planned | | | | |
| 7.4. | It was just a waste of time attending that programme | | | | |
| 7.5. | I will encourage other students to attend library User Education programmes | | | | |

8. Is there anything that you would like to say about User Education programmes at UL? If so please say it here:

_____

_____

_____

_____

_____

**Thank you for your participation**

**APPENDIX B**
**LIBRARY STAFF INTERVIEW SCHEDULE**
**INTERVIEW SCHEDULE**

1. What User Education programmes has the library adopted to teach library users how to use library resources and services effectively? Please write yes or no.

   Library orientation: _____

   One on-one training: _____

   Bibliographic instruction: _____

   Information Literacy: _____

   Library tour: _____

   Library guides: _____

   Brochures: _____

   Others (please specify _____

2. Who are the audience for each of the User Education programmes that you provide?

   Library orientation: _____

   One-on-one training: _____

   Bibliographic instruction: _____

   Information Literacy: _____

   Library tour: _____

   Library guides: _____

   Brochures: _____

Others: _____

3. Who deliver these User Education programmes?

_____

4. What aspects are covered in each of the User Education programmes that you provide?

Library orientation: _____

One-on-one training: _____

Bibliographic instruction: _____

Information literacy: _____

Library tour: _____

Library guides: _____

Brochures: _____

Others: _____

5. What problems OR impediments have you experienced as the library in terms of current User Education programmes?

_____

_____

_____

_____

_____

_____

_____

**Thank you for your participation**

**Students' Questionnaire covering letter**
**University of Limpopo**
**Information Studies Programme**
**Private Bag X1106, Sovenga, 0727, South Africa**
**Cell: 082 4861 943, Fax: 086 04512 698, Email:kgaogelo.shai@ul.ac.za**

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## *QUESTIONNAIRE ON PERCEPTIONS OF FINAL-YEAR STUDENTS AT THE UNIVERSITY OF LIMPOPO ON THE ADEQUACY OF LIBRARY USER EDUCATION PROGRAMMES.*

Dear Participant,

I invite you to participate in a research study entitled Perceptions of final-year students on the adequacy of library user education programmes at the University of Limpopo. I am currently enrolled in the Information Studies Programme at University of Limpopo and am in the process of writing my Master's Thesis. The purpose of the research is to evaluate or assess perceptions of final-year students at the University of Limpopo on the adequacy of library user education programmes.

Your participation in this research project is completely voluntary. You may decline altogether, or leave blank any questions you don't wish to answer. There are no known risks to participation beyond those encountered in everyday life. Your responses will remain confidential and anonymous. Data from this research will be kept under lock and key and reported only as a collective combined total. No one other than the researchers will know your individual answers to this questionnaire. Please do not write your names on the questionnaire as it is anonymous.

If you agree to participate in this project, please answer the questions on the questionnaire as best you can. It should take approximately 10 minutes to complete. If you have any questions about this project, feel free to contact Mr. Shai K.S on the contact information provided above.

Thank you for your assistance in this important endeavour.

Yours sincerely

Shai K.S

# APPENDIX D: LETTER FROM THE SUPERVISOR

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**UNIVERSITY OF LIMPOPO: FACULTY OF HUMANITIES**

**SCHOOL OF LANGUAGES AND COMMUNICATION STUDIES**

**DEPARTMENT OF MEDIA, COMMUNICATION AND INFORMATION STUDIES**

**Tel.: 015 268 4015**

**Email: solomon.bopape@ul.ac.za**

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08 May 2018

The Registrar / University librarian

University of Limpopo

Private Bag x 1106

Sovenga

**Request to conduct research by student**

The following is our registered Masters student in the Programme of Information Studies working under my supervision for conducting research:

**Mr Shai KS**

His research topic is "P*erceptions of final-year students at the university of Limpopo on the adequacy of library user education programmes"*

It is against this background that your most kind assistance to this student to collect data from targeted library staff for continuation of this research project will be most sincerely appreciated. Please also find attached the ethical clearance certificate from the Turfloop Research Ethics Committee.

Kindly allow them to conduct interviews with all Faculty and School librarians as well as Library User Education Librarian and the Head of Reader Services section in your library.

For more clarity on this request, please call me at 015 268 4015. My e-mail address is solomon.bopape@ul.ac.za

Yours collegially

_____

Dr S.T. Bopape: Acting HOD: Media, Communication and Information Studies

**UNIVERSITY OF LIMPOPO**

**ETHICS COMMITTEE**

**PROJECT TITLE: Perceptions of final year students on the adequacy of User Education Programmes at the University of Limpopo.**

**PROJECT LEADER: Mr K.S. Shai and Dr S.T. Bopape (Supervisor)**

*CONSENT FORM*

I, _____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 <u>Library Education</u> (e.g. 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, i.e. 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 WITNESS


_____

SIGNATURE OF PERSON THAT INFORMED


_____

SIGNATURE OF PARENT/GUARDIAN


_____

THE RESEARCHED PERSON


Signed at _____this \_\_day of _____2018

## University of Limpopo
### Department of Research Administration and Development
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 3935, Fax: (015) 268 2306, Email: Anastasia.Ngobe@ul.ac.za

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## TURFLOOP RESEARCH ETHICS
## COMMITTEE CLEARANCE CERTIFICATE

**MEETING:**            07 March 2018

**PROJECT NUMBER:**     TREC/38/2018: PG

**PROJECT:**

**Title:**              Perceptions of final-year students on the adequacy of library user Education Programmes at the University of Limpopo.

**Researcher:**         KS Shai
**Supervisor:**         Dr ST Bopape
**Co-Supervisors:**     N/A
**School:**             School of Languages and Communication Studies
**Degree:**             Masters in Information Studies

**PROF TAB MASHEGO**
**CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE**

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: **REC-0310111-031**

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**Note:**
i)     Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee.
ii)    The budget for the research will be considered separately from the protocol.
       **PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.**

*Finding solutions for Africa*