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A framework for postgraduate library services in academic libraries in KwaZulu-Natal (KZN)

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DECLARATION

I, Iviwe Julia Yengwa, hereby declare that this dissertation has not been submitted in any form to any other institution. This study presents the original work by the author and all sources used or quoted have been duly acknowledged.

09 November 2021

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Iviwe Julia Yengwa

Date

As the candidate's supervisors we agree to the submission of this thesis

12 November 2021

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Dr N. Sentoo (Supervisor) Date

12 November 2021

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Ms. P. Rakoma (Co-supervisor) Date

DEDICATION

To my handsome son Kamvelihle Ulukhanyo Othalive Mcobothi who is my source of joy and pride.

To my loving husband Mr Lulama Mcobothi, my parents Mr Zithandele and Mrs Nokhaya Yengwa and my siblings for giving me unconditional love.

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ABSTRACT

This study investigated a framework for postgraduate library services in KwaZulu-Natal (KZN) academic libraries. The objectives of the study were: 1) to investigate if postgraduate students use library services in KwaZulu-Natal academic libraries or not; 2) to investigate challenges faced by postgraduate students when utilizing library services and 3) to investigate postgraduate students' perceptions regarding library services in academic libraries in KwaZulu-Natal. The target population for the study were postgraduate students in KZN academic libraries. Postgraduate students were chosen for inclusion in the study using multistage sampling. Self-administered questionnaires were distributed to 336 postgraduate students in KZN academic libraries (Durban University of Technology (DUT), University of KwaZulu-Natal (UKZN) and University of Zululand (UNIZULU). Data collected was analyzed using Microsoft Excel and presented in the form of graphs and tables. Findings of the study revealed that postgraduate students were aware of library services, they accessed the library services continuously and the services were relevant to their information needs. The study further revealed that library services had a positive impact on postgraduate studies. Findings of the study also revealed that Postgraduate Librarians and Subject Librarians were playing a vital role facilitating research and providing relevant information resources. However, the study also revealed some challenges that were faced by postgraduate students when utilizing library services. Challenges such as poor internet connection, inability to access the library catalogue and inability to locate books on the shelves. It is recommended that academic libraries regularly organize training programs for postgraduate students on the use of library resources and services. Library space should be extended to accommodate more students and ensure that the environment is comfortable.

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LIST OF ABBREVIATIONS

BTECH: Bachelor of Technology

ILL: Inter-Library Loan

IR: Institutional Repository

IT: Information Technology

KZN: KwaZulu-Natal

LIS: Library and Information Studies

ND: National Diploma

SABINET: South African Bibliographic Network

UoT: University of Technology

Institutions

DUT: Durban University of Technology

MUT: Mangosuthu University of Technology

UKZN: University of KwaZulu-Natal

UNISA: University of South Africa UNIZULU:

University of Zululand

CHAPTER ONE

Introduction and Research problem

1.1. Introduction

"A library is a collection or group of collections of books and/or other print or non-print materials, organized and maintained for use such as reading, consultation, study and research" (Pinfield, Cox and Rutter 2017:4). The authors further state that "libraries play a significant role in creating literate environments and promoting literacy by offering relevant reading materials to their users".

The Library and Information Studies (LIS) sector has a variety of information providing agencies that cater to their users' information needs, namely academic libraries, special libraries, school libraries and national libraries. According to Negi (2018: 5), "academic libraries offer services to registered students and staff of a particular institution; school libraries cover library services for children in schools up until (but not including) university, public libraries are accessible to the general public and are funded from public sources such as taxes". The author further explains that "the government of a country specifically establishes national libraries to serve as the pre-eminent repository of information for a particular country" and lastly, special libraries "include almost any of librarianship, including those who serve in medical libraries (and hospitals or medical schools), corporations, news agency libraries or other special collections".

This study focused on academic libraries in KwaZulu-Natal. Academic libraries are situated at a university (Vishala and Bhandi 2018: 230). They have a collection of resources and services, "providing access to various resources to support teaching, learning and research activities." The primary purpose of an academic library is to build broader and deeper collections and arrange for users to access those collections based on certain principles and policies of a particular library (Brophy 2015: 47). For example, undergraduate students are allowed to borrow standard loan items for two weeks; postgraduates and staff can borrow library materials for four weeks; short-loan items can only be issued for two hours in the library or overnight (Wedgeworth 2016: 5). "Academic libraries provide services to the staff members, visitors and students of a particular institution (Brophy 2015: 47)".

Namugera (2017: 741) states that academic libraries have a mandate of enhancing teaching, research and learning for postgraduate students through provision of up-to-date library services. To remain relevant to the library users, in this study postgraduate students, it is important for academic libraries to consider postgraduate students' views and perceptions to provide relevant services in line with postgraduate students' research needs (Namugera 2017: 742). Academic libraries' missions are to support research, teaching and learning by ensuring

that they provide useful resources to support the need for increased postgraduate students' enrollments.

1.2. Background to the study

This study was based on academic institutions in KwaZulu-Natal, namely the Durban University of Technology (DUT); University of KwaZulu-Natal (UKZN) and University of Zululand (UNIZULU). Mangosuthu University of Technology (MUT) has been excluded from the study because an e-mail communication on 02 February 2017 from the Director of MUT Library indicated that MUT does not have Masters students and as such, does not offer postgraduate services. The University of South Africa (UNISA), Durban Campus, has also been excluded from the study because an email communication on 30 May 2019 From the Research Ethics Officer (Ms Gill), indicated that postgraduate matters or queries are only handled at the Head Office in Pretoria. Therefore, the researcher could not conduct the study at UNISA. According to Webb, Gannon-Leary and Bent (2017: 208) library services must inspire and inform every aspect of librarianship because libraries exist to serve their communities and society as a whole. The service ethic should inform relations with users and every aspect of how library policies and procedures are designed and evaluated. Buckland (2019: 27) states that it is meaningful to consider library services (and their users) as a system of interacting part.

According to Webb, Gannon-Leary and Bent (2017:63) library services include reference and information services that provide a positive experience for the customer, proactive reference services such as homework collections which allow users of the library to work independently; and customer service practices that seek to assist users in finding information, such as staff working one-on-one with the user at a library computer. The authors further state that other services of academic libraries include designing and offering learning activities which enhance classroom experience; teaching information literacy skills; and engaging young adults in the learning process. According to Khaola and Mabilikoane (2018: 44), "the satisfaction of academic library users and their subsequent utilization of library resources is important for quality teaching, research and learning".

A study conducted by Brendan et al. (2019: 3) revealed that "service quality has become increasingly important in developing countries today as it allows service providers to provide greater value, competitiveness, opportunities for growth in services and an increase in customer satisfaction". It is essential to provide excellent services to users to ensure that their needs are properly met. This theory is relevant to the study because it emphasizes the importance of understanding users' perceptions regarding library services offered, especially for postgraduate students.

1.3. Research problem

To understand library users' needs, libraries should survey users' perceptions on the services they deliver, either "by surveys handed out or mailed to a random sample of users, or by a web-based survey on the library's website" (Bhim 2016: 2). Bhatti, Atta and Khan (2015: 3) state that "to provide effective information services, it is essential to measure the perception of library users on the quality of library services to ascertain whether or not the library is meeting the diversifying information needs of its users." The researcher studied at the Durban University of Technology, did her Work Integrated Learning (WIL), and also became one of the DUT Library's employee. During those years the researcher was exposed to an academic library, firstly as a student and later on as an employee. The researcher observed that the library staff did not survey the perceptions of library users when it comes to library services. The library staff did not really take into consideration how library users feel about the services offered and whether or not those services met the users' needs. The researcher noticed that postgraduate students struggled to access library resources and services online and at times it was hard to get someone to assist them. This has prompted an investigation into postgraduate students' perceptions of the library services in KwaZulu-Natal academic libraries. This study will contribute positively in terms of addressing issues that postgraduate students face when utilizing library services. In addition, KZN academic libraries will use the findings of this study to improve the quality of library services where necessary.

1.4. Aim of the study

This study aimed to survey postgraduate students' use of the library services KwaZulu-Natal (KZN) academic libraries.

1.5. Objectives of the study

The objectives of the study were to:

i. Determine if postgraduate students use the library services in KwaZulu-Natal academic libraries;

ii. Ascertain postgraduate students' perceptions regarding library services in KwaZulu-Natal academic libraries, and

iii. Identify challenges faced by postgraduate students when utilizing library services.

1.6. Critical questions

To answer the above objectives, the study generated the following critical questions:

i. Do postgraduate students make use of library services in academic libraries in KwaZulu-Natal?

ii. What are postgraduate students' perceptions regarding library services in academic libraries in KwaZulu-Natal?

iii. What challenges do postgraduate students face when utilizing library services?

1.7. Importance of the study

This study is important and beneficial to postgraduate students as well as academic libraries in KwaZulu-Natal. Once students' perceptions have been obtained, it will be easy to understand their perceptions regarding library services. If there are challenges that students face, they will be addressed, and possible recommendations will be made. KZN academic libraries such as DUT, UKZN and UNIZULU will also benefit from this study because the findings will provide a framework to help these institutions improve their postgraduate services, if necessary.

1.8. Overview of research methodology

This study adopted a quantitative research approach to survey postgraduate students' perceptions regarding library services. Self-administered questionnaires were distributed to 336 postgraduate students in KZN academic libraries (Durban University of Technology (DUT), University of KwaZulu-Natal (UKZN) and University of Zululand (UNIZULU). A return rate of 173 (51%) was achieved. The target population for this study were postgraduate students in KZN academic libraries. A variety of literature was consulted by the researcher to provide insight into the research methods and design pertaining to sampling, data collection and data analysis. The researcher used (Sekaran and Bougies 2013: 268) table to determine the appropriate sample size for each institution as indicated in Table 3.2. Postgraduate students were chosen for inclusion in the study using multistage sampling. A detailed discussion of the research methodology is provided in Chapter three. Data collected was analyzed using Microsoft Excel and presented in the form of graphs and tables. Narrative explanations of result are provided where necessary. Based on this, presentation and discussion of findings are provided which lead to conclusions and recommendations.

1.8.1. Ethical statement

This study was approved the Faculty of Accounting and Informatics Ethics Committee at the Durban University of Technology, prior to commencement of this study. The researcher approached all three institutions included in this study to obtain gatekeeper letters between the month of May 2018 and July 2018. Data was collected as when gatekeeper letters were received. Permission to administer questionnaires was obtained from the Library Directors at DUT, UKZN and UNIZULU. Participants were clearly informed that completing the questionnaire was voluntary and a letter of information and consent was attached to the questionnaire. Furthermore, participants were informed that they can withdraw from the study at any point and their responses would remain confidential.

1.9. Limitations and delimitations of the study

Limitations are factors, usually beyond the researcher's control, that may affect the results of the study or how the results are interpreted (Baron 2017: para. 20). Stating limitations of the study may be useful for readers because it provides a means of acknowledging possible errors or difficulties in interpreting the results of the study. Some of the limitations that were beyond the researcher's control includes low return rate and incomplete questionnaires. The Mangosuthu University of Technology (MUT) was excluded from the study because it does not have post-graduate students. It only has Btech students. The University of South Africa's (UNISA) Durban Campus has also been excluded from the study because an email communication on 30 May 2019 from the Research Ethics Officer (Ms Gill) indicated that postgraduate matters or queries were only handled at the Pretoria Head Office.

1.10. Structure of the research report

The report consists of five chapters. Chapter one presents details about the background to the study, the research problem, importantly the research objectives and questions, motivation for the study, definitions of relevant terms used in the study, limitations and delimitations of the study, as well as the outline of the overall research report.

Chapter Two: reviews the literature on frameworks of postgraduate services in academic libraries in KwaZulu-Natal. The following are discussed: academic library services, services offered to postgraduate students, postgraduate students' perceptions regarding library services, challenges faced by postgraduate students when utilizing library services, the role of librarians in encouraging postgraduate students to use library services and the role played by academic libraries in terms of research. The frequency of use of library services, awareness of library services by postgraduate students, factors that contribute to the low

usage of library services and the impact of library services on postgraduate studies are also discussed in Chapter Two.

Chapter Three: discusses in detail the methodology that was used to carry out the study. It also gives an analysis of how the sample frame was decided upon and presents the design of the questionnaire that was used. The following are discussed in Chapter Three: population, sampling, data collection method, self-administered questionnaires, questionnaire design, pre-testing of questionnaires, distribution and collection of questionnaires, return rate of questionnaires and data analysis.

Chapter Four: presents an analysis of the findings of the study as follows: institutions that were surveyed, qualifications of respondents, library usage, reasons for not using the library, frequency of use of library services, how respondents feel about the library services and ability to access library services remotely. Other aspects that were discussed include methods used to access library services, training on how to utilize library services, respondents that attended the training, challenges faced by postgraduate students when utilizing library services, availability of the Research Commons in the library, frequency of use of the Research Commons, reasons for using the Research Commons, availability of a postgraduate Librarian in the library, and other library staff members who assist postgraduate students in the absence of a Postgraduate Librarian. The role of a Postgraduate Librarian in postgraduate studies, methods of communication used to communicate with the Postgraduate Librarian, impact of library services on postgraduate studies as well as general comments on postgraduate library services were also discussed.

Chapter Five: provides a summary of the main findings, conclusions and recommendations. A list of literature cited is included and the necessary appendices are attached. Chapter Five discussed the following: the extent to which postgraduate students use library services in academic libraries in KwaZulu-Natal (KZN), library usage, services that post-graduate students utilize, access to the library services remotely, challenges faced by postgraduate students when utilizing library services, postgraduate students' perceptions regarding library services in academic libraries in KwaZulu-Natal and the impact of library services on postgraduate studies.

1.11. Summary

This Chapter introduced the research problem that the study investigated, provided relevant background to the study, its objectives and critical questions guiding the study, an overview of the study's methodology, definition of relevant terms and structure of the research report. The following chapter, Chapter Two, reviews the wealth of national and international literature consulted for the study.

CHAPTER TWO

Literature Review

2.1. Introduction

This chapter discusses the literature reviewed that relates to this study. According to Paul and Criado (2020: 1) "a literature review provides a comprehensive review of literature related to a theme, theory, method and synthesizes prior studies to strengthen the foundation of knowledge." The literature review is where the researcher characterizes "theories and previous research that have influenced the choice of research topic and the methodology he or she is choosing to adopt" (Pinfiled, Cox and Rutter 2017: 116). The literature review is essential for all research disciplines and all research projects as it allows the researcher to motivate the aim of the study and justify the research questions (Snyder 2019: 334).

Academic libraries have different origins and characteristics as they express their missions, aims and objectives in many ways. The primary role of academic libraries is to provide access to information resources and teach their users how to search for information (Yeh and Walter 2016: 795). Academic libraries are known for their prominent role in supporting teaching and learning. Hence Guo, Yang and Yang (2020: 116), emphasize that academic libraries are devoted to providing their users with relevant library services and resources as efficiently as possible, even if it means working beyond working hours because the users are the heart of the library. Without the users' information needs being met, the libraries would be serving no purpose. Baayel (2020: 1) states that the core function of an academic library is to provide a conducive environment that is easily accessible by all users and offer user education and training programs to promote information literacy. Meaning, library users should be able to get assistance whenever they visit the library. The library staff should also be trained on how to provide timely and quality library service to their users. Academic libraries are services as they exist to provide a service to people who need it. For this reason, academic libraries cater for several different user categories such as "undergraduate students, postgraduate students, research students and staff, academic staff, external readers, distance learners and users with special needs." It is therefore essential for librarians to respond to the various needs of library users equally taking into consideration that their perceptions regarding library services will differ to a certain extent (Yeh and Walter 2016: 795). There are various academic libraries in KwaZulu-Natal. All of them provide the information and research needs of registered students and staff members of a university by providing services and resources that are suitable for the users' needs. The Durban University of Technology (DUT) is one of the five academic libraries, next is Mangosuthu University of Technology (MUT), followed by the University of KwaZulu-Natal (UKZN), University of South Africa (UNISA) and lastly, the

University of Zululand (UNIZULU). This study is focused on academic libraries that cater for postgraduate students.

2.2. Academic library services

One of the paramount principles of academic libraries is to provide access to information resources and ensuring that users' needs are satisfied. Amongst the driving principles for most modern organizations are customer service and customer satisfaction. Iwu,-James, Haliso and Ifijeh (2020: 164) elucidate that for students to be satisfied, libraries need to re-strategize their marketing techniques and ensure that they provide services that are in line with users' needs. This can be achieved by surveying library users' perceptions regarding library services to get a clear understanding of the type of services library users require. Academic libraries need to stay abreast of the latest trends to ensure that they provide relevant and up-to-date library resources (Ongus, Geraka and Nyambonga 2017). Hence the need for academic libraries to survey postgraduate students' perceptions regarding library services to ensure that the services and resources that they render are in line with the information needs of postgraduate students. This will ensure that the services offered by academic libraries are suitable for the needs of their users. Various authors such as Sriram and Rajev (2017); Gekara and Nyambonga (2017) endorse that the best way to effortlessly encourage users to keep visiting the library and utilize the services is to be in the shoes of the users and provide services pertaining to their needs. Services and facilities such as extended library opening hours as some postgraduate students have full time jobs so they are unable to visit the library during business hours. Most students study remotely, so they need to be able to get assistance from library staff remotely. The only way to better understand the users' needs is to survey their perceptions regarding library services so as to get a clear view of what library users need. The above literature is relevant to the study because it talks about academic library services and how library staff can improve those services to make sure that the needs of postgraduate students are satisfied. This literature relates to one of the objectives of this study which is to ascertain postgraduate students' perceptions regarding library services in KwaZulu-Natal academic libraries.

2.3. LIBQUAL and SERVQUAL

LibQual and ServQuals are models that are used to measure the quality of academic library services with the aim of understanding the users' perspectives (Brendan et al. 2019: 3). The aim and mission of any academic library is to provide users with quality services. Hence librarians should consider the needs of the users, assess service quality to ensure that the users' information needs are satisfied. Soraya and Fateme (2018: 196) also add that with the advancement of the library service evaluation process, various tools and models have been

devised for evaluation. These models include LibQual and ServQual models. In order for academic libraries to render relevant services, they need to listen to their users, understand their expectations and perceptions so that they know where to improve. That's where LibQual and ServQual play a huge role because these models help the academic libraries to obtain direct responses to series of questions (Brendan et. al 2019: 3). The authors further state that applying LibQual and ServQual also helps academic libraries to measure their performance from the users' perspectives.

Similar to one of this study's objective, academic libraries in KZN can also need to evaluate their services by listening to postgraduate students' perceptions and opinions. According to Haruna, Madul and Adamu (2017: 57) academic libraries can also improve or change their services, increase library visibility and marketing as well as contribute to broader institutional assessment by seeking feedback from library users, train library staff and empower them on how to support library users

User satisfaction is significant when it comes to defining organizational success, particularly in the service industry. According to Kurdi, Alshuridehb and Alnaser (2020: 3566) the need to enhance customer satisfaction is crucial because it is the key to better service delivery and it helps especially academic libraries, to understand the perceptions of library users better. It is important for academic libraries to study the perceptions of their library users in order to understand their needs and provide relevant services. Without library users, academic libraries would serve no purpose, therefore it is important for librarians to be relevant and provide up-to-date library services. The above discussion relates to this study as it seeks to encourage librarians to study and understand postgraduate students' needs and provide applicable services thereon.

2.4. Customer satisfaction theories

Over the last decades, there has been a growing interest in studying customer satisfaction. This is evident from the large number of articles, books and literature focusing on different aspects of the subjects in different disciplines (Yi 1990). Nearly all customer satisfaction theories are based on the structural model, which comprises the antecedents and consequences of customer satisfaction. This study looked at two theories of customer satisfaction.

The first theory is the Contrast Theory which suggest that when the actual product falls short of consumer's expectations about the product, the contrast between the expectation and outcome will cause the consumer to exaggerate the disparity (Yi 1990). This means that "a customer who receives a product less value than expected, will magnify the difference between the product received and product expected (Yuksel and Yuksel 2008: 97). This

theory predicts that product performance below expectations will be rated poorer than it is in reality (Oliver and DeSarbo 1988).

Under the Dissonance theory, the opposite effects occur. Perceived performance, whether it is less or more favorable than the consumer's expectations, is drawn to the original expectation level (Yuksel and Yuksel 2008: 98). The Dissonance Theory suggests that a person who expected a high-value product and received low-value product would recognize the disparity and experience a cognitive dissonance (Cardozzo 1965). Meaning that, the disconfirmed expectations create a state of dissonance (Yi 1990). Oliver (1996) adds that negative disconfirmation occurs when performance is lower than expectations. Of course, negative disconfirmation leads to dissatisfied or unhappy customers. This study used the principles of the above mentioned theories in the process of investigating postgraduate students' perceptions regarding library services in KwaZulu-Natal. Both these theories are relevant to the study as one of the objectives of this study was to study the perceptions of postgraduate students regarding library services.

2.5. Services offered to postgraduate students

Academic libraries are generally established to support learning, teaching and research programs in universities by building their collections and facilities in a way that is going to meet users' needs. (Kumara 2017: 1). "Over and above providing a conducive atmosphere for reading and consultation of relevant facts and data, the library also offers a variety of facilities and services to enable readers to make optimal use of library resources" (Iwu,-James, Haliso and Ifijeh 2020: 159). Some of the services offered by academic libraries are discussed in the next section.

2.5.1. Subject guides/ LibGuides

Subject guides also referred to as research guides, pathfinders, electronic library guides or LibGuides, and finding aids (Fraser-Arnott 2020: 170) are bibliographic instruction tools which are meant to serve as introductions to research sources and strategies for a particular subject or discipline. According to Courtois, Higgins and Kapur (2016: 190), "nearly all academic libraries provide access to subject guides on their websites, which consist of a list of resources on a particular topic, broad discipline or for a particular course". The authors elucidate that subject guides usually include a combination of print and electronic sources for easy access. To make it easy for library users to retrieve information, libraries provide a step-by-step guide on using library resources such as reference works, databases, developing a search strategy and determining relevance.

Most guides are brief, according to Morris and Grimes (2017: 216) and usually include further information to be used should additional assistance is required. The literature presented in the paragraph above provided the basis for surveying postgraduate students and were used to develop questions intended to evoke the respondents' opinions on library services.

2.5.2. Institutional Repository (IR)

Institutional Repository is a common term used, however, different institutions also use Open Access Open Scholar, Dspace, Open-source software and Research Commons. Institutional Repositories have proliferated around the world since the adoption of the Berlin Declaration in 2003 (Bangani 2018: 131). Lynch and Lippincott (2018: 132) describe the institutional repository as an educational or research establishment which is the library's parent body. Jabbar, Rehman and Hashmi (2020) add that an "Institutional Repository is a digital research archive consisting of accessible collections of scholarly work that represents the intellectual capital of that institution." Institutional repositories contain materials such as theses or dissertations, conference proceedings, papers, e-books, journals, newspapers, and university publications (Jabbar, Rehman and Hashmi 2020). However, Lynch and Lippincott (2018: 132) add that "each university has a unique culture and assets that require a customized approach". Therefore, "the information model that best suits one institution may not fit another institution". The Institutional Repository goes together with Open Access (OA) in terms of providing access to information resources free of charge. One of the objectives of this study was to ascertain postgraduate students' perceptions regarding library services in academic libraries in KwaZulu-Natal. The researcher has chosen this literature because it is relevant to the study as it talks about free access to information resources, which is part of the services that are offered by academic libraries.

2.5.3. CHELSA reciprocal agreement

The Committee of Higher Education Libraries of South Africa (CHELSA) Reciprocal agreement is a service that allows postgraduate students based in other areas of South Africa to use the academic library nearest to them. Even though library services and resources can be accessed remotely, sometimes users need to use the physical library to print, make copies or use computers. That is where the CHELSA reciprocal agreement comes in because it enables distance students or researchers to request a referral letter to use the facilities of the institution nationwide. According to Shrauger and Scharf (2017: 230) reciprocal service, similar to inter-library loan services, provides an opportunity for postgraduate students, scholars, researchers to study, teach and conduct research in a resource-sharing environment; enabling discovery, analysis, and reflection leading to the creation of new knowledge. Through this service, academic libraries are able to expand the availability of

resources to postgraduate students significantly. Therefore, collaboration between libraries will be strengthened if reciprocal borrowing is arranged at the institutional level, rather than leaving students to make these arrangements themselves (Ramasodi 2009). "CHELSA aims to improve library and information services for public higher education and research in South Africa by ensuring that the Higher Education sector is provided with optimal access to information for the purpose of learning, teaching, research and community development" (Perez 2014: 11). This literature is relevant to the study because one of the objectives of the study was to ascertain postgraduate students' perceptions regarding library services in KwaZulu-Natal academic libraries. Therefore, the researcher wanted to find out how postgraduate students felt about this service.

2.5.4. Reference management tools

There are various reference management tools that are used, namely, EndNote, Mendeley and Refworks. This study focused on EndNote. East (2016: 66) refers to EndNote as a commercial reference management software package that is used to manage bibliographies and references when writing essays and articles. EndNote allows students to import references and articles from a wide range of databases and create a bibliography list (East 2016: 64). According to Idris et al. (2019: 6) "referring from the text to the sources used and creating a bibliographic description of each source used in an accurate and consistent way, are a fundamental part of scientific publications." In addition to this, most academic libraries provide training on the usage of EndNote for academics and postgraduate students considering the fact that referencing is the integral part of research. Furthermore, given that many libraries are involved in providing EndNote training, it is safe to assume that many local EndNote users turn to library staff for assistance in using the software (Perez 2014: 11). The researcher sought to determine if postgraduate students use the library services in academic libraries in KwaZulu-Natal. This includes trainings on how to access or use library resources.

2.5.5. Virtual library

This service provides 24-hour access to online resources from off-campus, as well as mobile devices. All these services are available for access by postgraduate students. Today e-commerce is a reality and a promising business process, internet is a business environment which is why it is also vital for academic libraries to provide remote access to library services (Rusyn, Vysotska and Pohreliuk 2018). The authors echo that being able to access the library remotely affords library users the opportunity to access various library resources anywhere, anytime. One of the objectives of the study was to determine if postgraduate students use library services in KwaZulu-Natal academic libraries. Akpan and Eni (2019: 862), explain that

"the core function of a virtual library is to provide access to tools such as databases, electronic journals, alerting services, online reference tools and quality-selected web resources that improve the quality of teaching and research.

2.6. Postgraduate students' perceptions regarding library services

To understand how library users feel about library services, it is vital for the library to investigate users' perceptions regarding their services. This will make it easier for the library to improve where necessary and ensure that the services that they offer meet the specific needs of their users. This study aimed to investigate postgraduate students' perceptions regarding library services in academic libraries in KwaZulu-Natal. Findings of a study conducted by (Kiriri 2018: 380) revealed that information resources were made available and accessible to postgraduate students to meet their needs. In order to keep postgraduate students satisfied with library services, librarians need to be better equipped and motivated to address the needs of postgraduate students. Kiriri (2018: 379) echoes that library employees should be trained on public relations and attend forums for Librarians so as to keep abreast with the technology and latest trends in library keeping. That way they will know which resources and services are pertinent to the users' needs. As much as it is essential for academic libraries to have up-to-date collections, building a solid relationship with library users is just as important. Naidu (2017: 341) state that the preliminary role of academic libraries is the provision of information resources and quality service. The relationship between the user and librarian is the building block for better service delivery. "Since academic libraries are an integral part of the education system, how they are perceived determines their smooth existence and value to the users" (Namurega 2014: 743). Academic libraries should therefore contribute to the goals of the system as a whole and respond to the changing needs of postgraduate students. The researcher hoped to find out if postgraduate students at KZN academic libraries were aware of the library services that were offered in their libraries.

Findings of the study that was conducted by (Andoh, Appiah and Agyei 2020: 129) revealed that students showed some level of dissatisfaction with library services.   The authors further state that on the other hand students were happy with the library's e-resources as they contributed positively to their research work. Students also showed their satisfaction with the library's computer facilities and were less satisfied with print resources. Students felt that it was imperative for academic libraries to update their collection with recent ones especially books and journals. The literature reviewed above has been used in various studies relating to library services and it guided this study as it focuses on perceptions of postgraduate students which

speaks to the aim and objectives of this study. Therefore the reviewed literature was sought suitable to adopt by the researcher.

2.7.   Challenges faced by postgraduate students when accessing library services

Postgraduate students face several challenges when utilizing library services. Those challenges include physical barriers relating to ICT infrastructure and damaged computers in the library that prevent postgraduate students from doing their work (Akporhonor and Akpojotor 2016: 6). Although the above literature was done in Nigeria, the researcher has noticed that based on data collected, postgraduate students from South Africa particularly KwaZulu-Natal academic libraries, face similar challenges. According to (Akporhonor and Akpojotor 2016: 6) information retrieval, struggle in using suitable key words, lack of information literacy skills, limited computers and poor connectivity are some of the challenges that postgraduate students come across when utilizing library services. Since the authors have highlighted challenges that postgraduate students come across when utilizing library services, the researcher wanted to determine if postgraduate students at KZN academic libraries also faced similar challenges (Abdulrahman and Onuoha 2019: 7). The findings of this study will give a clear overview of what academic libraries shoud do next.

Okogwu (2019); Akporhonor and Akpojotor (2016: 9) noted that postgraduate students lack research skills and are struggling to find information resources relevant to their needs. Other challenges faced by postgraduate students include inadequate training, lack of information literacy skills, inability to access library resources, noise from library users as well as inadequate library opening hours (Okogwu 2019). According to Akporhonor and Akpojotor (2016: 13), students found it difficult to find information; they lack research skills; and they also found it difficult to access some websites. Other challenges observed were download delays, inability to obtain some journals, the unavailability of some websites and difficulties in navigating through electronic resources (Akporhonor and Akpojotor 2016: 7). One of the objectives of the study was to determine the challenges that postgraduate students face when utilizing library services. Based on the literature reviewed, it is evident that postgraduate students face challenges when they access library services. Therefore, (Bangani, Moyo and Mashiyane 2019: 9) recommend that "academic libraries should periodically review library spaces as a way to ensure optimal usage." Electricity supply should also be restored by having back-up generators in all libraries in order for postgraduate students to maximize use of library.

2.8. The role of Librarians in encouraging postgraduate students to use library services

Reale (2016: 32) discusses strategies to establish teaching style and encouraging postgraduates to make use of library services. In his discussion, he states that:

Librarians need to establish contact early and often with students, setting up initial appointments with each of them where they discuss, amongst other things, what concerns they may have with the materials in the library. How one may help them specifically is a good place to start.

- Postgraduates should be encouraged to fill out an "intake" form that will collect information from them and help one establish a "baseline" idea of their strengths and difficulties are with research.

For postgraduate students to be able to access library resources independently without hassles, librarians should offer refresher sessions regularly (Anyim 2018). Librarians need to have a strong relationship with students so that it will be easy for them to know the challenges faced by students and what exactly their needs and expectations are. According to Reale (2016: 9), in order to maintain a good relationship between the postgraduate students and librarians, librarians must develop, build and maintain relationships, which is a direct path to a true partnership; deliver services in a way that answers the students' needs in a timely and personalized way with continuity and learn, understand, operate and provide services that are relevant to the user's needs. Anyim (2018) further state that "the essential role of librarians is to bring together information seekers and information sources, changes in the environment oblige librarians to re-assess their roles". The following competencies relate more or less to the research support in an academic library (Anyim 2018) "information literacy: including knowledge of learning models and strategies, reference services, engaging with and educating patrons" as well as "professional development and research: undertaking research, knowledge of the research process and the fundamentals of research methods. It is important for librarians to encourage postgraduate students to use library services and assist them when they come across challenges. This can be done by providing platforms for postgraduate students to consult with librarians through various platforms like social media, email and e-learning. It is also important for postgraduate students to be equipped with information literacy skills so that they can access library resources themselves. One of the objectives of this study was to identify challenges faced by postgraduate students when utilizing library services. The above discussion is relevant to the study because it explains different challenges that postgraduate students come across when using library services.

2.9. The role of academic libraries in facilitating research

Academic libraries play a vital role in providing teaching and research facilities to students. Okogwu (2019) adds that academic libraries play a significant role in supporting teaching and learning in higher institutions. According to Bangani, Moyo and Mashiyane (2019: 9) academic libraries have a responsibility to provide recent and up-to-date library resources to meet the changing needs of their postgraduate students. These resources can be recently reviewed collection of books and journals, up-to-date databases, training programmes on how to obtain library resources. The authors further state that postgraduate students are to be "provided with the facilities necessary for mastering the subject matter, techniques, information literacy skills, habits of thought, and methods of work in their chosen field". Academic libraries need to ensure that they provide services that will cater for the needs of postgraduate students to improve their perceptions.

Academic libraries support teaching, learning and research activities through provision of various information resources (Vishala and Bhandi, 2018). According to Patel (2018: 419), to ensure that academic libraries render relevant services to postgraduate students, they must "examine how their mission statements relate to the perspectives of researchers". Patel (2018: 419) further state that in academic libraries, both academics and researchers mostly depend on the library resources (information resources such as books, databases, journals) and facilities (computers, printing and photocopying) for their information needs. There is no doubt that a quick and easy access to such resources accelerate both academic and research activities more effectively by proving needs that will satisfy students. Kiriri (2018: 378) explain that "besides storing books, academic libraries also provide systematically digitized information resources and services to support research, teaching and learning".

It is crucial for academic libraries to fulfil their role of supporting research and learning by making sure that they provide access to up-to-date and generous collections of both print and electronic resources; access to archives and special collections – facilitated in recent years by libraries' digitization projects; efficient Information and ICT; quick document delivery services; and specialist help and advice in tracing resources (Rusyn, Vysotska and Pohreliuk 2018: 123). One of the objectives of the study was to ascertain the perceptions of postgraduate students regarding library services in KwaZulu-Natal academic libraries. The researcher wanted to find out how students feel about the library services and what role librarians play in facilitating research.

2.10. Frequency of use of library services

It is vital for library staff to examine the frequency of use of library services by the users to improve service quality where necessary and get feedback from the students. Results of the study that was conducted by (Gyau, Jing and Akowuah 2021: 14) revealed that majority (65%) of postgraduate students used library service on a daily, weekly, monthly and quarterly basis. Even though the majority of postgraduate students used library services daily, there was also a negative effect of using non-library resources on library premises and some postgraduate students did not use library services due to the inability to locate, retrieve and use information sources in the library despite orientation programs being made available to students to improve their library skills (Gyau, Jing and Akowuah 2021: 14). The availability of the right information at the right time is of utmost importance to library users. When library users are unable to access information resources at their earliest convenience it becomes impossible for them to do their research and that can be frustrating. Patel (2018: 416) state that inability to access library services by postgraduate students has been a major concern. This could be due to the fact that postgraduate students are not getting enough encouragement to use the library from academic staff. Bhatti, Atta and Khan (2015: 4) indicate that different types of users, including students, researchers and users from different occupations use the academic library. This study wanted to determine if postgraduate students use the library services or not, and if so, how frequently postgraduate students used the library services. Gyau, Jing and Akowuah (2021: 14) confirmed that the frequency of consulting library staff varies widely". It is important for academic libraries to evaluate the use and frequency of library service.

2.11. Awareness of library services by postgraduate students

To increase the awareness of library services amongst postgraduate students, librarians need to ensure that they market the services regularly. To a large extent, postgraduate students are dependent on library resources and services to conduct research. Therefore, it is imperative for academic libraries to maintain awareness on the optimization of those services to improve user satisfaction (Burhansab, Batcha and Ahmad 2020: 12). Many libraries, especially university libraries, are focusing on the evaluation of the users' needs and their satisfaction with their services to see where they can improve their services to ensure that the users' needs are met. Findings of a study conducted by (Donabedian, Carey and Balayan 2018: 9) revealed that students lacked sufficient knowledge of resources and services that were pertinent to their teaching and research activities. The study revealed that one hundred and ninety respondents rarely used these resources (information resources and services) and they faced challenges

when it comes to utilizing them. In addition, some of the respondents acknowledged that they were aware of library resources, although the library materials were outdated (Kaur and Kathuria 2017: 81). Based on the literature in the above paragraph, this study aimed to address one of the critical questions of the study namely; what challenges do postgraduate students face when utilizing library services? This literature clears indicates that postgraduate students do face some challenges when utilizing library services. The researcher hopes to find out if postgraduate from KZN institutions experience any challenges.

2.12. Factors that contribute to low usage of library services

A wide range of information is accessible online, and the increasing availability of technology has made the world very different for today's students (Fakoya-Michael 2017: 26). Due to this, postgraduate students often do not use academic libraries for research studies. According to a study that was conducted by Rout and Panigrahi (2018: 31), the majority of the postgraduate students were satisfied with library services. However, some postgraduate students were dissatisfied with in-time responses from library staff to their queries. The author further explains that the majority of postgraduate students indicated that they were facing a lack of electronic resources, inadequate collection, and insufficient physical facilities.

Findings of a study conducted by (Fakoya-Michael 2017: 26) revealed that postgraduate students experienced various challenges whilst utilizing library services. These challenges include but not limited to lack of electronic resources in the library, as well as inadequate collections and insufficient physical facilities. Furthermore, the analysis revealed that most postgraduate students faced problems related to library catalogues, collection arrangements, computer facilities and inadequate library opening hours. In addition, some students experienced difficulty in obtaining appropriate articles, others were just unable to do basic information search using the library catalogue (Fakoya-Michael 2017: 26). This study wanted to determine if postgraduate students use library services and to investigate possible reasons for not using the services, if there were any. Since the factors that contribute to the low usage of library services have been discussed, the researcher wanted to find out if the same situation occurred in KZN academic libraries.

2.13. The impact of library services on postgraduate students

Library services play a pivotal role in the research world of postgraduate students. "Academic libraries exist to contribute to the core values and mission statements of the university, which is to support teaching, learning and research" (Idris et. al 2019: 6). According to Gilchrist (2016: 23), "only a small percentage of discipline faculties integrate instruction in library research methods into their courses or maximize the instructional opportunities embedded in

the library's facilities and collections". She adds that "this situation persists in spite of the fact that the library's educational role forms a significant spoke, if not indeed the hub, of many college libraries missions". Academic libraries have always aimed to uphold the educational mission in the university that it serves. However, the perception that it played the role of a support service was understandable prior to the information era (Idris et. al 2019: 9)". Gilchrist (2016:17) states that "the distinguishing features of academic libraries include a philosophy and tradition of collaboration and facilities designed to support and engage a diversity of student needs in a variety of ways".

Findings of a study that was conducted by (Islam and Sheik 2020: 279) revealed that a majority of students considered library opening hours as highly important to access library resources, followed by Wi-Fi internet speed and the library website to access library resources and services for their research. Results of the study further revealed that postgraduate students indicated that library opening hours during semester break, printing, photocopying, reference services, information skill sessions, and training on bibliographic citations were important for their research activities.

Anyim (2018) state that there are library initiatives that aim to move proactively into the domain of researchers by establishing dedicated research units, which aim to embed the library in research activity. An example is that at the Curtin University of Technology which aims to proactively support research activities by providing relevant resources, strengthening research processes, facilitating scholarly communication and promoting research output" (Islam and Sheik 2020: 119). Some of the activities taking place in these units are: "managing the submission of electronic theses, managing institutional repositories, developing research collections, training in database searching and building relationships across universities' research communities, for example between offices of research and development and the committees for postgraduate studies" (Anyim 2018). Discussions presented in the previous paragraphs provide details on how library service impact postgraduate students and it also relates to one of the objectives of the study which was to ascertain postgraduate students' perceptions regarding library services in KwaZulu-Natal academic libraries.

2.14. Summary

This chapter discussed a significant body of literature that highlights issues relevant to the study and hence gives it relevant context. The researcher consulted a selection of local and global literature in diverse scenarios accessible in monographic form, journal articles, conference papers and online websites, the last mentioned being particularly useful in areas where information in traditional information sources is difficult to come by. The main findings presented by the authors regarding perceptions of postgraduate students regarding library

services was that postgraduate students revealed that library services were relevant to their information needs and the library has kept up-to-date regarding new developments in their field of interest. Another major finding was that students revealed that they were aware of library services, but the library lacked current and up-to-date information resources. The majority of students faced lack of e-resources and insufficient physical facilities in the library. However, some students felt that library services had a positive impact on their postgraduate studies. The next chapter focuses on the research design and methodology that has been employed to conduct this study.

CHAPTER THREE

Research Design and Methodology

3.1. Introduction

Research methodology considers and explains the logic behind research methods and techniques (Welman 2015: 2). "This is where the actual research is conducted. Methodology is a process by which data is collected and analyzed." Mills and Birks (2014:32) state that "methodology determines how the researcher thinks about a study; how they make decisions about a study; and how they position themselves to engage firstly with participants and then with the data generated or collected." The authors further state that choosing a methodology is strongly linked to the desired outcome of the study, such as what do you want to achieve by answering a research question.

3.2. Research approach

Different types of approaches can be adopted when conducting research. These approaches include qualitative methodology, quantitative methodology and mixed method research. According to Creswell and Guetterman (2019: 545), "a mixed method research design is a procedure for collecting, analyzing and mixing both quantitative and qualitative methods in a single study in order to understand a research problem." In quantitative research, the investigator identifies a research problem based on the trends in the filed or on the need to explain why something occurs, whereas quantitative data collection involves using an instrument to measure variables in the study such as questionnaires (Creswell and Guetterman 2019: 13). This study adopted a quantitative approach due to its capability to obtain results on larger sample sizes.

This chapter has two main parts: data collection and data analysis. The technique for collecting data was developed and strategies for collecting data were put into practice.

3.3. Research methodology

This research methodology includes the population, sampling, data collection instruments, questionnaire design, pre-testing the questionnaire and questionnaire distribution.

3.3.1. Population

Babbie (2013: 115) defines the population as a group (usually of people) about whom one wants to draw conclusions. In this study, the population were postgraduate students in KwaZulu-Natal tertiary institutions. The total number of the population for this study was 493 postgraduate students as indicated in Table 3.1 which was obtained through the research office of each institution.

Name of institution	Population
Durban University of Technology (DUT)	183
University of KwaZulu-Natal (UKZN)	198
University of Zululand (UNIZULU)	112
Total	**493**

Table 3.1: Number of postgraduate students at each institution

3.3.2. Sampling

Most populations are too large to gather data from all members. The researcher can instead select a sub-set of the population to study which is called a sample (Jensen and Laure 2016: 88). "Sampling is the process of selecting a few (sample) from a bigger group (the sampling population) as the basis of estimating or predicting the relevance of an unknown piece of information, situation or outcome regarding the bigger group" (Kumar 2014: 229).

"A sample is used to simplify the research" in order to save time because studying an entire population can be time-consuming (Brynard, Hanekom and Brynard 2014: 56), especially if the population is very large or distributed over a large geographical area. The first stage of any sampling process is to clearly define the population that the researcher is interested in. According to Best (2012: 236), once one has defined the population one is interested in, one needs to decide on how to identify a representative sample from the population. It is very important to make sure that the sample is representative of the population. Stratified random sampling was used in this study. According to Creswell and Guetterman (2019: 148) "stratified random sampling is based on grouping units into subpopulations called strata and then using hierarchical structure of units within each stratum." In this study the population was stratified according to institutions and then respondents were selected randomly. Due to Protection of Personal Information Act (POPIA) the researcher could not get a list of postgraduate students from KZN institutions. As a result, postgraduate students from research commons were

approached. The researcher used (Sekaran and Bougies 2013: 268) table to determine the appropriate sample size for each institution as indicated in Table 3.2. The University of KwaZulu-Natal had 198 postgraduate students and an appropriate sample size is 127. University of Zululand comprises of 112 postgraduate students and an appropriate sample size would be 86. The Durban University of Technology (DUT) has 183 postgraduate students and the sample size for this population is 123.

Institution	No. of postgraduate students	Sample size
DUT	183	123
UKZN	198	127
UNIZULU	112	86
TOTAL	439	336

Table 3.2: Sample size of the population

3.4. Data collection method

Data collection is the process by which data will be generated and collected. Data collection might include a combination of participant stories, conversation, field notes, poetry, imagined dialogue or artwork (Mills and Birks 2014: 166). "In order to avoid problems later, the researcher needs to specifically, concretely and without reservations answer the following questions: What data is needed? Where is the data located? How will the data be secured? How will the data be interpreted?" (Leedy Ellis & Ormrod 2015: 196). According to Leedy, Ellis and Ormrod (2015: 99), "data is often collected from a large sample that is presumed to represent a particular population so that generalizations can be made about the population." In this study, data was collected from postgraduate students in academic libraries in KwaZulu-Natal. There are various methods of data collection. Creswell and Guetterman (2019: 146) identifies four of these methods: self-administered questionnaires; interviews; structured record reviews to collect financial, medical or school information; and structured observations.

3.4.1. Self-administered questionnaires

Self-administered questionnaires were used to gather data from participants. "A questionnaire is a written list of questions, the answers to which are recorded by respondents. Thus, respondents read the questions, interpret what is expected and then write down answers" (Kumar 2014: 178). "Usually, the purpose of the study is explained to potential respondents. Apart from being slightly more time-consuming, this method has all the advantages of administering a questionnaire collectively" (Kumar 2014: 180). To obtain informed consent, the questionnaire in this study was accompanied by a covering letter that described the main

objectives of the study. The relevance of the study was also explained, any general instructions conveyed, and it indicated that participation in the study was voluntary. "

The questionnaire used in this study comprised open-ended and closed-ended questions. Since participants do not like answering the questionnaire, the researcher made sure that there were few open-ended questions in order to save the participants' time. According to Neuman (2011: 323), open-ended questions allow the respondent the freedom to offer any answer they wish to the question; whereas in closed-ended questions, the possible answers are set out in the questionnaire and the respondent must choose from a fixed set of answers.

Kumar (2014: 181) postulates that even though questionnaires have advantages, there are some disadvantages as well. Advantages being that questionnaires are inexpensive, allow the researcher to gather information from a large audience and allow easy analysis of results. On the other hand though, Questionnaires are notorious for their low response rates as people fail to return them on time or return them at all. There is also a high possibility of respondents filling the questionnaire incorrectly, leaving some questions unanswered, as well as differences in understanding and interpretation of questions.

3.4.2. Questionnaire design (Appendix C)

The questionnaire consisted firstly of two demographic questions, namely institutions where respondents were currently studying at as well as the qualifications they were pursuing. The rest of the questionnaire consisted of three sections: Section A, B and C.

Questions 1-10 from Section A pertained to the library services; whether postgraduate students use the library services and how often they used the services.

Questions 1-7 from Section B were specifically about library services offered to postgraduate students.

Lastly, questions 1-12 from Section C were about the impact of library services on postgraduate studies. At the end of the questionnaire, respondents were welcome to write general comments and suggestions regarding library services.

3.4.3. Pre-testing of questionnaire

To check if the questionnaire is clear, a small pilot study must be done. Questionnaires for this study were pre-tested to ensure validity and reliability. Reliability estimates the consistency of your instruments whilst validity involves the degree to which you are measuring what you are supposed to. Questions formulated in this study's questionnaire were carefully designed and applied to all respondents so as to maintain reliability of the instruments.

Presenting the questionnaire to a few people that share the characteristics of a sample but do not belong to the group will allow the researcher to identify all the potential flaws (Bless, Higson-Smith and Sithole 2013: 212). According to Kumar (2014: 191), "having constructed the research instrument, whether an interview or a questionnaire, it is important that one tests it out before using it for actual data collection." It is essential to conduct one or more pilot tests to determine the validity of the questionnaire. At a minimum one should give the questionnaire to several friends or colleagues to see whether they have difficulty in understanding any items (Leedy, Ellis & Ormrod 2015: 169). "Through such strategies one can see the kinds of responses one is likely to get and ensure that in the actual study, the responses obtained will be of sufficient quality to help answer the research questions." Twelve questionnaires were distributed to 12 postgraduate students at the University of South Africa (UNISA) in Durban for pre-testing. The researcher personally went to the research commons to distribute pre-test questionnaires. In order to avoid late returns, the researcher collected the questionnaires the same day. Ten out of the twelve questionnaires that were distributed for piloting were returned. The purpose was not to collect data, but to identify problems that the potential respondents might have in understanding the questions (Bless, Higson-Smith and Sithole 2013: 241). The pilot study revealed that respondents did not experience any difficulties in answering the questionnaire.

3.4.5. Distribution and collection of questionnaires

All questionnaires were personally distributed by the researcher. Respondents were asked to submit completed questionnaires to the circulation desk. The first batch of questionnaires was personally delivered by the research to the Durban University of Technology, next was the University of KwaZulu-Natal, and lastly the University of Zululand. Data was collected from 18 May 2018 till 18 July 2018. The reason for reporting on the research three years after data was data was collected is because the researcher's studies were interrupted due to personal matters. Respondents were given two weeks (from UKZN and UNIZULU) to complete the questionnaires, but after two weeks the return rate was very low, and the researcher had to give another two weeks.

Bless, Higson-Smith and Sithole (2013: 102) "claim that if the research worker delivers the questionnaires, picks them up or both, the completion rate seems higher than in a straightforward mail survey." Furthermore, "to facilitate a desired high return rate, personal collection of the questionnaires from the selected academic libraries was done." Follow-ups were made two weeks after distribution to ensure maximum return rate. Some respondents had the questionnaires ready in time and others needed more time. Many times, the researcher ended up going to the institutions under difficult circumstances, only to be told that the questionnaires were not ready. More time was allowed to the respondents. Leedy, Ellis &

Ormrod (2014: 201) highlight that "respondents should be given the choice of either participating or not participating and they have the right to withdraw at any time."

3.4.6. Return rate of questionnaires

According to Fink (2017: 72) "self-administered questionnaires require a great deal of preparation and monitoring to get a reasonable response rate." To encourage high return rate of questionnaires, the researcher needed to make sure that the timing was right, and this meant that questionnaires had to be distributed before students went on June vacation. This helped to avoid some students going on holidays with the questionnaires and never return them. Some respondents did not return the questionnaires on time and the researcher had to be patient and wait until they all returned the questionnaires. Data collection ended in July 2018 amounting to three months of data collection (data collection began on 24 May 2018). Despite the problems outlined in section 3.5.4, of the 336 questionnaires distributed, due to the researcher's perseverance there was a return of 173 (51%) questionnaires. Bless, Higson-Smith and Sithole (2013: 132) advise that "once the data has been collected and before coding the data, the researcher has to make sure that each question has been answered and the answers properly coded." If 25% of the questionnaire is left incomplete, it may be a good idea to regard it as spoilt questionnaire (Sekeran and Bougie 2013: 302). Of the 173 questionnaires that were returned, thirteen were regarded as spoilt. Therefore, the effective return rate was 160 (47%) of the 336 questionnaires distributed.

	Institution	No. of Questionnaires Distributed	No. of Questionnaires Returned	%age Rate	Spoilt questionnaire
1.	Durban University of Technology	123	58	43%	4
2.	University of KwaZulu-Natal	127	65	47%	5
3.	University of Zululand	86	50	53%	4
	Total	**336**	**173**	**47%**	**13**

Table 3.3: Questionnaire distribution and collection [N=173]

Fink (2017: 261) points out that "while a response rate of questionnaires of at least 50% is adequate for data analysis and reporting, it is just a rough guide having no statistical basis." Sekaran and Bougie (2013: 237) consider a "30% rate acceptable." However, according to Bless, Higson-Smith and Sithole (2013: 121), out of the total number of questionnaires sent out, generally only 20-40% are returned. This study, with its overall return rate and with the individual return rates for each of the three institutions seems to have done well. According to Leedy, Ellis & Ormrod (2015: 192-193), "potential respondents have little or nothing to gain by answering and returning the questionnaires and many often do not."

3.5. Data analysis

Sekaran and Bougie (2013: 24) state that "in data analysis, the data gathered is statistically analyzed to see if the hypothesis that was generated has been supported." Data was analyzed using Microsoft Excel. Cross-tabulation charts and graphs was used to compare results. A high level of confidentiality and anonymity was maintained by "keeping research data secret from the public; not releasing information in a way that permits linking specific individuals to specific responses; and by presenting data only in aggregate form such as percentages" (Neuman 2011: 153). According to Mills and Birks (2014: 97), "the goal of analysis is to seek patterns as well as irregularities, examining data for explanations of the phenomenon being studied."

3.6. Validity and reliability

According to Neuman (2011: 323) reliability is the extent to which an instrument measures the same without being biased to the various items in the data collection instruments each time it is used. Questionnaires were pre-tested to ensure that they were measuring what they were supposed to measure and to also check if respondents understood the questions. In this study validity was ensured by phrasing the questions concisely to avoid ambiguity. The questionnaire contained relevant questions pertaining to the objectives if thus study and questions were structured in a way that would be easy for respondents to comprehend.

3.7. Summary

This chapter explained the methodology used to conduct the research. It also gave an account of how the respondents were selected using a multi-stage sampling method. The data collection instrument, distribution and collection of data was clearly outlined in this chapter. Each section of the questionnaire was clearly discussed. A detailed discussion of data collection was provided in this chapter. Chapter four entails results and interpretation of findings.

CHAPTER FOUR

Results and Discussion

4.1. Introduction

Chapter three was mainly about research methodology and data collection techniques used to gather the required data for this study. This chapter presents findings that were derived from the self-administered questionnaires which were used to survey postgraduate students in KwaZulu-Natal (KZN) academic libraries. A total of 336 questionnaires were administered to postgraduate students. A return rate of 173 questionnaires (51%) was achieved, however, thirteen questionnaires were spoilt. So, the total number of questionnaires that were analyzed were 160.

Data collected was analyzed and is presented in the form of tables and graphs, where possible. Percentages are rounded off to the nearest whole to effect easier presentation of findings. Findings from the content analysis of responses to open-ended questions are presented in narratives. The questionnaire targeted postgraduate students in academic libraries in KwaZulu-Natal, namely:

- the Durban University of Technology (DUT);
- the University of KwaZulu-Natal (UKZN);
- the University of Zululand (UNIZULU).

4.1.1. Institutions that were surveyed

Table 4.1 presents the institutions that were surveyed, namely, "Durban University of Technology (DUT), University of KwaZulu-Natal (UKZN)" and "the University of Zululand (UNIZULU)." The number of questionnaires that were distributed to DUT, MUT and UKZN, number of questionnaires returned as well as the number of spoilt questionnaires are presented.

A total of 336 questionnaires were distributed in academic libraries (123 distributed at DUT, 127 for UKZN and 86 for UNIZULU). From DUT 54 (44%) questionnaires were returned, at UKZN 60 (47%) questionnaires were returned and at UNIZULU the return rate was 46 (53%). Overall, the total number of questionnaires returned across the three academic libraries in KZN was 173 (51%). UKZN had the highest return rate of questionnaires. Of the 173 (51%) returned, 13 questionnaires were spoilt. Therefore, the results will be presented on the 160 responses.

Institution	No. of Questionnaires Distributed	No. of questionnaires returned	Percentage (%) return
DUT	123	54	44%
UKZN	127	60	47%
UNIZULU	86	46	53%
Total	**336**	**160**	**48%**

Table 4.1 Academic libraries that were surveyed in KwaZulu-Natal [N=173]

4.1.2. Qualifications of respondents

Thirty-six (67%) of respondents at DUT were pursuing their Master's degree and 18 (33%) and were doing their PhD. Eighteen (30%) respondents from UKZN were studying towards an Honours Degree, 26 (43%) were pursuing Master's and 16 (27%) were on PhD level. At UNIZULU, 10 (22%) respondents were pursuing an Honours, 20 (43%) were studying towards a Masters' Degree and 16 (35%) respondents were pursuing a PhD. Based on the results in Figure 4.1 it can be concluded that the majority of respondents 80 (46%) were pursuing their Master's degree.
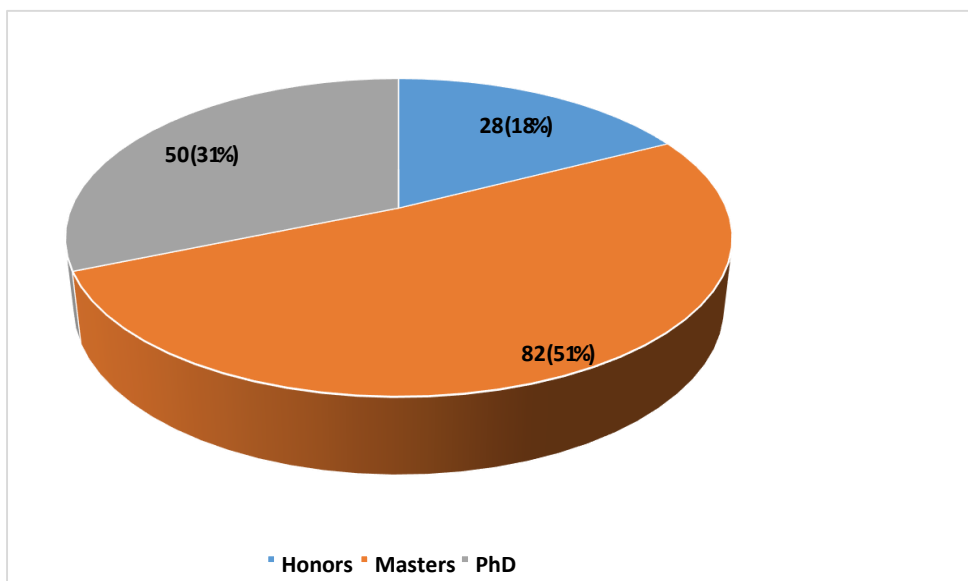
[N= 160]

Figure 4.1 Qualifications of study of respondents

4.1.3. Library usage

Figure 4.2 demonstrates that 130 (81%) of the respondents used the library and 30 (19%) of the respondents did not use the library. The reason why the majority of postgraduate students 130 (81%) used the library could be due to the fact that "academic libraries now provide services and facilities" to the postgraduate students to motivate them to use the library (Sriram and Rajev 2017; Ongus, Geraka and Nyambonga 2017). Postgraduate students use the library to do their research. However, the study revealed that 30 (19%) postgraduate did not use the library. This could be due the fact that they did not have time to visit the physical library because some of postgraduate students work full time, or it could be that they experienced some challenges when accessing the library remotely. The study aimed to determine whether postgraduate students access library services in academic libraries in KwaZulu-Natal or not. It can be concluded that postgraduate students do make use of library services both physical and remotely.
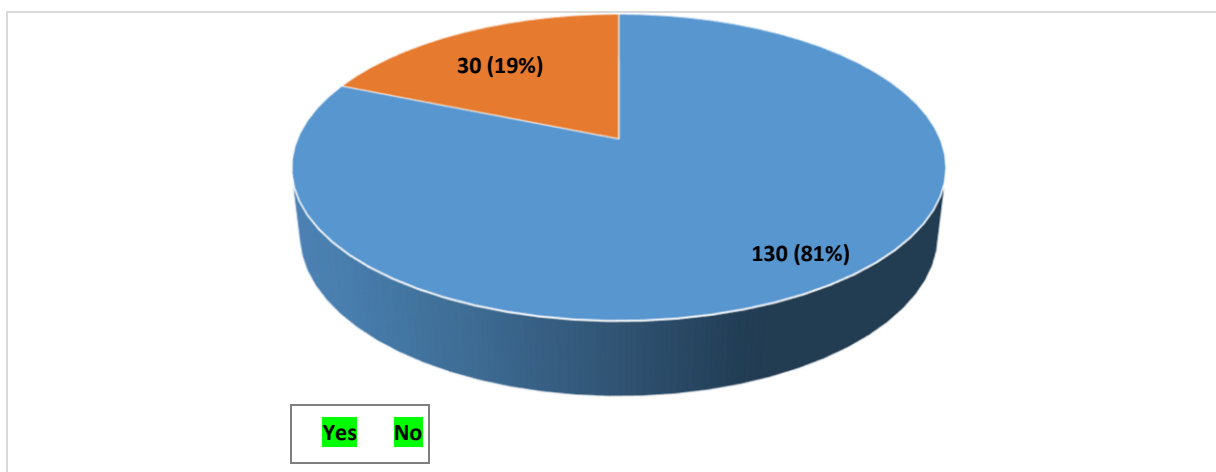
[N=160]

Figure 4.2 Library usage

4.1.4. Reasons for not using the library

Even though most respondents 130 (81%) indicated that they used the library, 30 (19%) indicated that they did not use the library and its services. According to Iwhiwhu and Okorodudu (2014: 7) the reasons that lead to non-usage of the library by postgraduate students were dissatisfaction with the information resources provided in the library, lack of new textbooks, journals and other recreational materials. In this study respondents who did not use the library highlighted the following reasons: the library was too busy and they do not know how the library works; the noise level was too high so they preferred to access the library at home. Other postgraduate students indicated that all the information that they need is found on the internet, some said they had their own computers to search for information as the library environment was not conducive to study.

4.1.5. Frequency of library services usage

As one hundred and thirty (81%) of respondents acknowledged to using the library, the rest of the analysis will be based on the 130 responses. The results presented in Figure 4.3 show that a majority, 51 (39%), of respondents used the library services monthly, while 49 (38%) utilized the library services daily. Thirty (23%) respondents indicated that they made use of the library services weekly. Some postgraduate students work full-time and study part time, it could be the reason that 51 (39%) postgraduate students used the library services monthly. The geographic distance and inability to access library services could also be another reason that contributed to less usage of library services. It could also be because some students were in final stages of their study writing the report. Amalahu, Oluwasina and Laoye (2011: 39) recommend that library staff should examine the "frequency of use of library services" by the users to get feedback from the students and improve service quality where necessary. This study set out to investigate if postgraduate students use library services in academic libraries in KwaZulu-Natal or not. Based on the results in Figure 4.3, it can therefore be concluded that postgraduate students do make use of library services monthly.
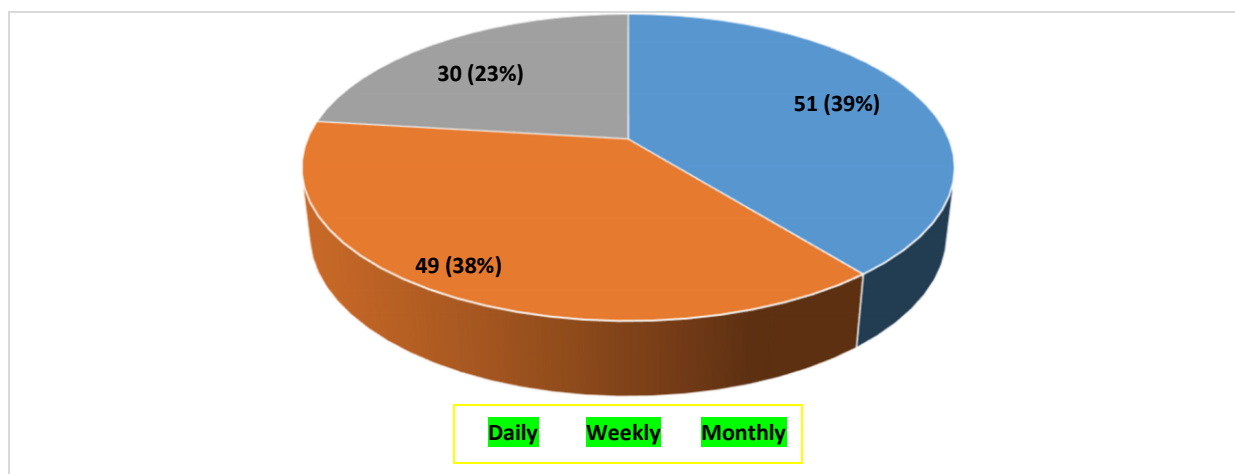
[N=130]

Figure 4.3 Frequency of use of library services

4.1.6. How respondents feel about each of the services provided by the library

Figure 4.4. illustrates how respondents felt about library services. Respondents rated the library services as follows:

In terms of Inter-library Loans: 98 (75%) respondents rated this service as excellent, 32 (25%) rated the service as good and none of the respondents rated the ILL service poor.

Of the total of 130 respondents, 100 (77%) indicated that electronic resources were excellent, 28 (22%) selected good and 2 (1%) indicated that electronic resource were poor.

Eighty-five (65%) respondents indicated that computers were excellent, 30 (23%) indicated that the computers were good and 15 (12%) selected poor. Sixteen respondents did not answer this question.

IT support was rated excellent by 102 (78%) respondents, while 28 (22%) selected good.

One hundred and ten (85%) respondents felt that EndNote was excellent and 20 (15%) selected good.

TurnItIn was rated excellent by 83 (64%) respondents and 43 (33%) said it was good.

Four respondents did not answer this question.

Photocopying and printing were rated excellent by 94 (72%) respondents and 36 (28%) selected good.

The significant findings based on the results indicate that postgraduate students were satisfied with the services that were offered by the library hence they rated the services as excellent (refer to Figure 4.5). This may be due to the fact that academic libraries are marketing the library services and teaching postgraduate students how to utilize these services (Jayasundara, Ngulube and Minishi-Majanja 2011: 127). Another reason could be that the library provided up to date resources and the opening hours are adequate. This study hoped to investigate post-graduate students' perceptions regarding academic library services. A conclusion can be made that respondents feel positive about the library services, hence most respondents rated most of the services as being excellent.
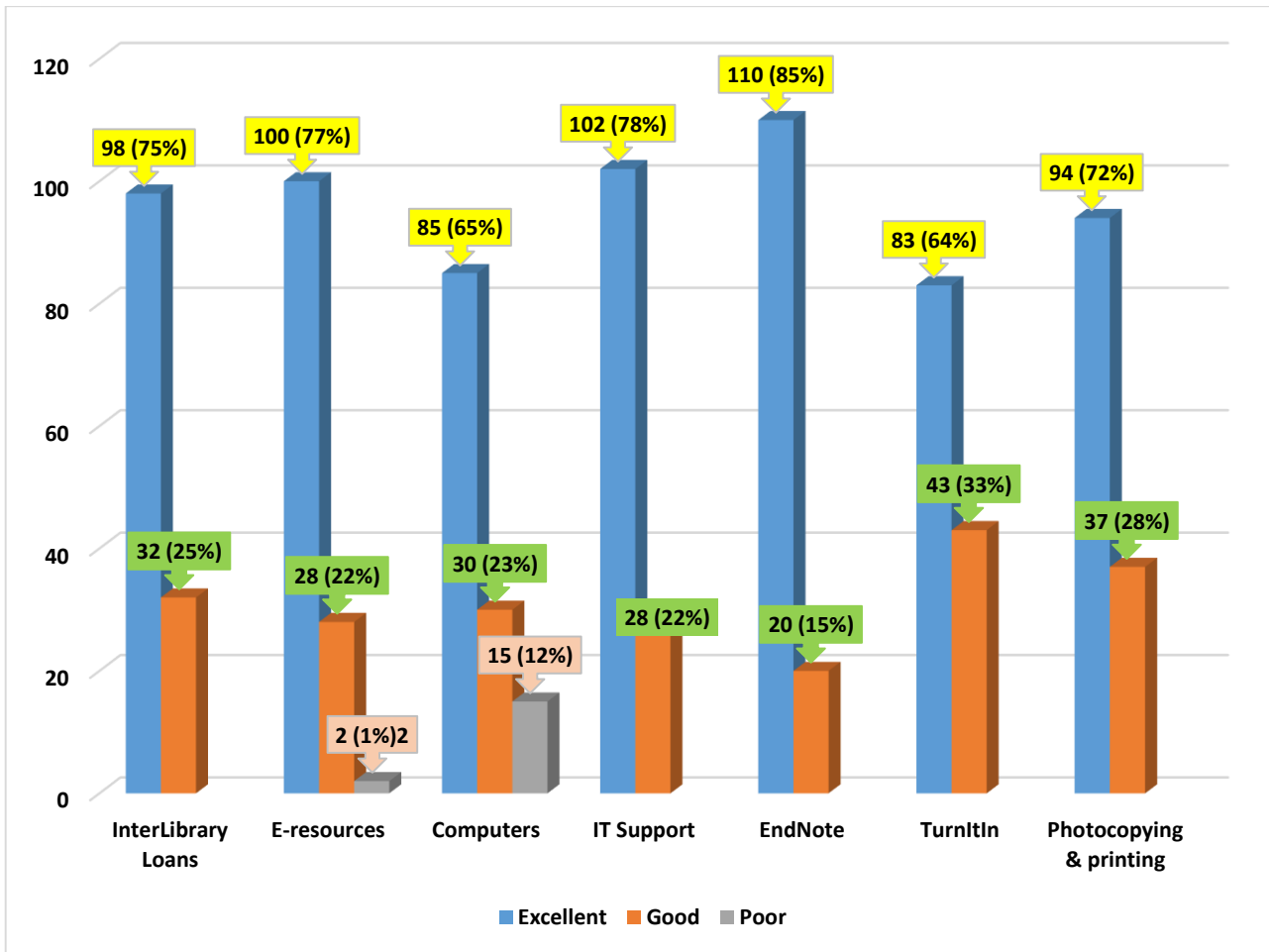
[N=130]

Figure 4.4 Perceptions of library services

4.1.7. Remote access

As shown in Figure 4.5, the significant finding is that the majority of respondents 127 (98%) were able to access library services and resources even if they were not on campus. According to Perez (2014: 2) this could be because academic libraries train their students and equip them with necessary skills so that they can use library resources remotely. "Library users obtain access to a great variety of local or remote information which they can access immediately whenever they want it" (Perez 2014: 2).
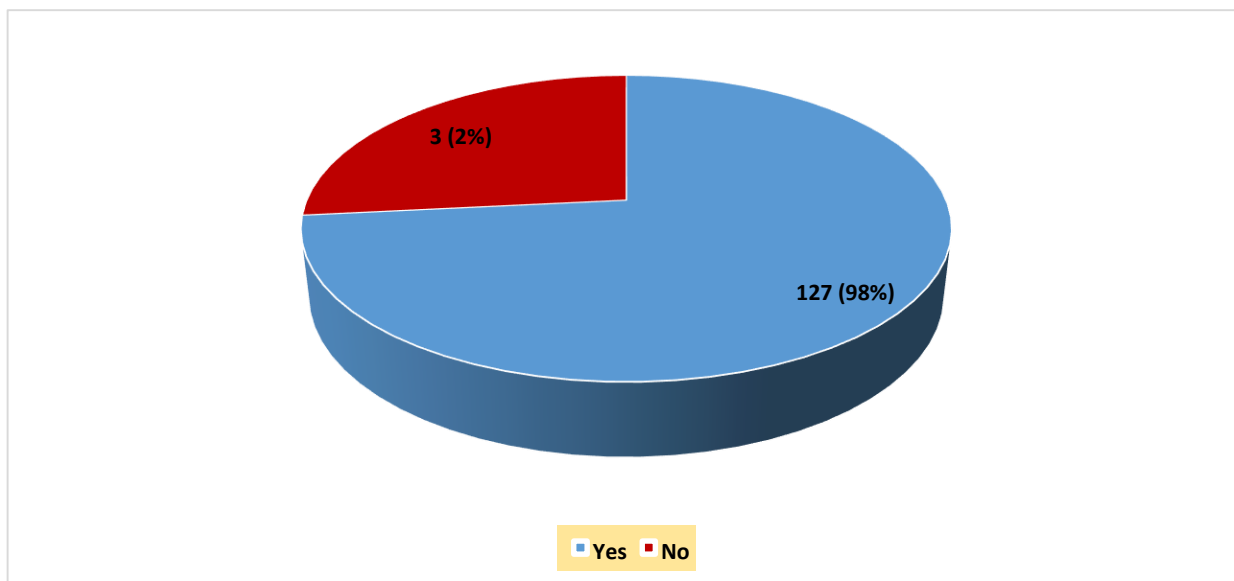
[N=130]
Figure 4.5 Remote access to library services

4.1.8. Access to library services

The majority of respondents 74 (57%) indicated that they used their personal laptops to access library services, 15 (12%) used mobile devices, with 36 (28%) indicating that they accessed library services at the Research Commons. Whilst library services can be accessed anywhere on any device, 5 (3%) of respondents highlighted that they gained access to library services through an Internet café. Results in Figure 4.6. revealed that most respondents 74 (57%) preferred to access library services using their personal laptops for convenience, this could be due to the fact that academic libraries provide space for postgraduate students to access library resources using their personal laptops. Another probable reason is that sometimes the research commons gets too busy due to ongoing trainings of other postgraduate students and the use of library computers become restricted.

It can be concluded that postgraduate students do utilize library services using different devices. Williams and Sawyer (2016: 3) agree that academic libraries have Research Commons especially for postgraduate students in order for them to make use of library services, however postgraduate students are also allowed to use their own devices such as cell phones and laptops.
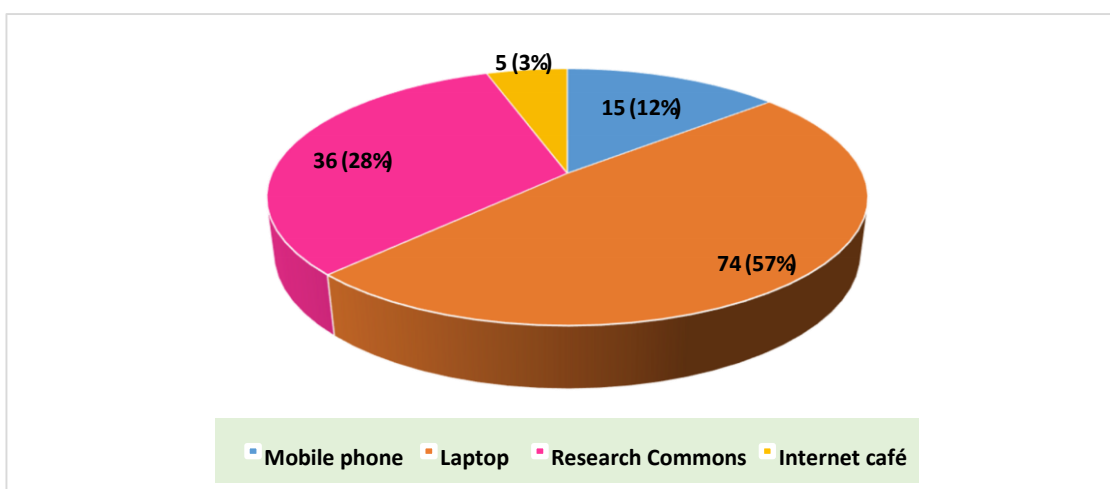
[N=130]
Figure 4.6 Methods used to access library services

4.1.9. Awareness of training on library services

For postgraduate students to be able to conduct research of good quality, academic libraries need to offer thorough and regular training on how to utilize library services. As shown in Figure 4.7 the majority, 109 (84%), of respondents were aware of the training that was offered by the library, while 21(16%) were not aware. This may be because not enough awareness is created regarding the training. Part of the study's objectives was to ascertain postgraduate students' perceptions regarding library services. The results in Figure 4.7 indicate that a minority, 21 (16%), of respondents were not aware of the training offered by academic libraries. Chanakira and Madziwo (2013: 45) propose that such training must be done regularly so that every postgraduate student can be aware. It is crucial for the management of academic libraries to contribute to university success by providing training and development programmes to re-skill postgraduate students with search skills, constructing search phrases and determining relevance.
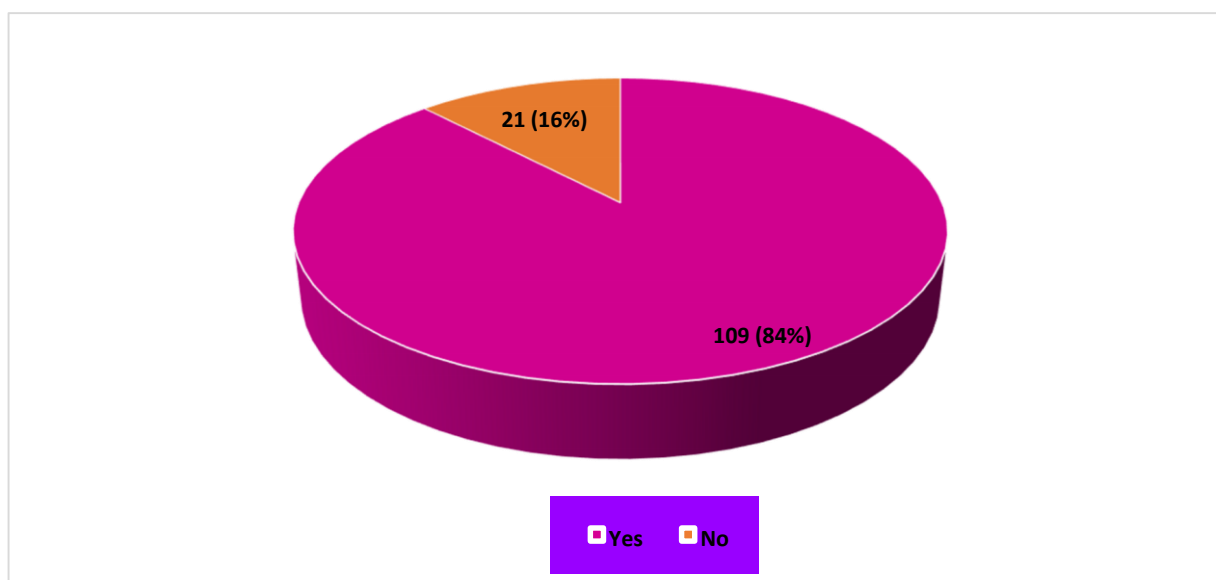
[N=130]
Figure 4.7 Awareness of training on how to utilize library services

4.1.10. Attendance at training

One hundred and seven (82%) of the respondents indicated that they attended the training offered in the library, while 23 (18%) indicated that they did not attend the training. A minority, 23 (18%) did not attend the training because, according to the responses from the questionnaire, they thought they had to pay for it. Lack of awareness could be the reason 23 (18%) postgraduate students did not attend the training. The study hoped to answer one of the critical questions: "do postgraduate students make use of library services in academic libraries in KwaZulu-Natal, if not what are the possible reasons that contribute to this?" It can be concluded, based on the results in Figure 4.8, that many respondents 107 (82%) have attended the training offered by the library. According to Snyder (2019: 336) training is crucial to the quality of postgraduate student's academic course work. When postgraduate students are encouraged to attend training, they will be equipped with research skills.
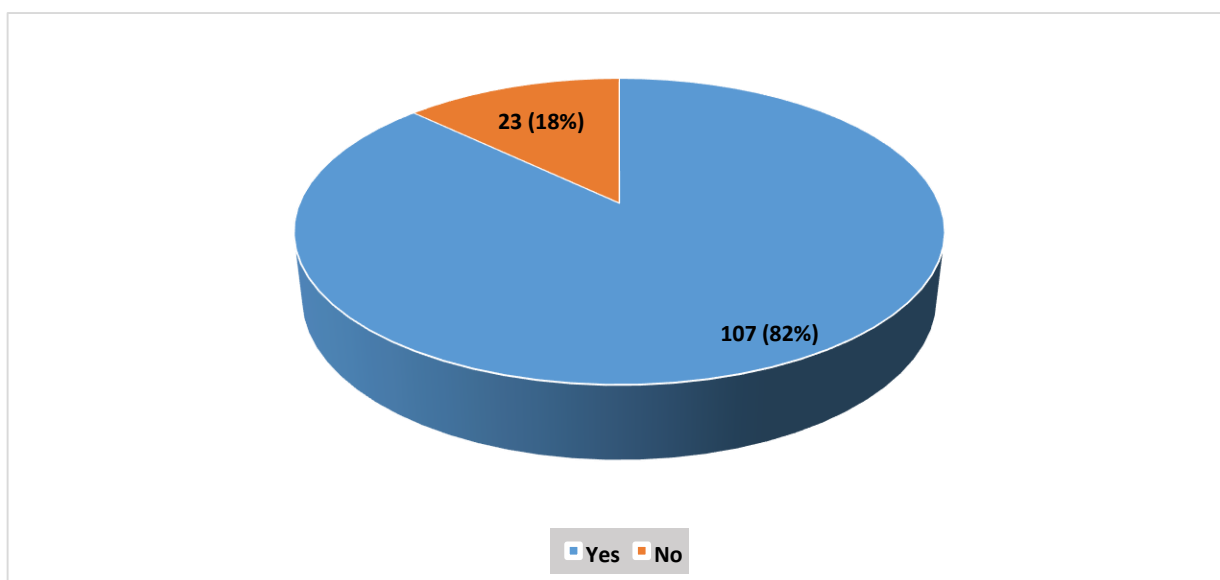
[N=130]
Figure 4.8 Attendance at training

4.1.11. Challenges faced by postgraduate students when utilizing library services As Akporhonor and Akpojotor (2016: 6) mentioned, postgraduate students face several challenges when utilizing library services. Those challenges include physical barriers relating to ICT infrastructure, damaged computers in the library which prevent postgraduate students from doing their work. Respondents from the three institutions indicated the same challenges which are as follows: Some of the online journals are difficult to access. The reason for this could be that postgraduate students are not equipped enough with information literacy skills necessary for them to conduct research. Another challenge that postgraduate students faced was limited access to the Research Commons (respondents require 24/7 access), sometimes the Research Commons is booked for workshops and students are forced to leave the venue. Not all postgraduate students own personal laptops, so academic libraries need to find an alternative venue that postgraduate students can use if the Research Commons is unavailable. Poor internet connection and inability to access the library catalogue and the inability to locate books from the shelves were some of the challenges that postgraduate students come across. To ensure that library services are up to date, academic libraries need to make sure that they provide services that are in good conditions such as fast internet connection and up to date information resources.

4.1.12. Awareness of Research Commons in the library

As shown in Figure 4.9, 120 (92%) respondents indicated that they were aware of the availability of Research Commons and 10 (8%) respondents indicated that they were not aware. Based on the findings of the study, it can be concluded that most respondents 120 (92%) were aware of the availability of the research commons that is available in the library. This could be due to the fact postgraduate students use the Research Commons to do their research. User surveys can provide useful perceptions of service quality in libraries. The reason for some respondents 10 (8%) to lack awareness of the Research Commons could be that they were not well informed, or they did not know how to access the Research Commons. Findings of a study conducted by Popoola (2015: 176) that one hundred and ninety respondents rarely used these resources (information resources and services). In addition, those who were fully aware occasionally used the resources and they indicated that the libraries lacked current materials and good customer relations.
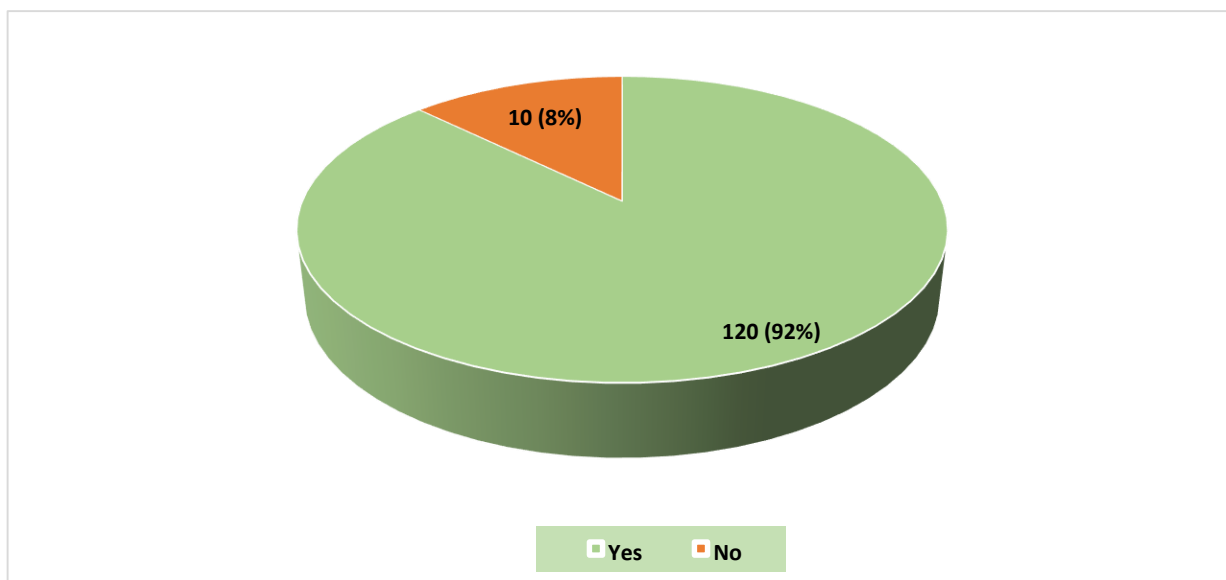
[N=130]
Figure 4.9 Awareness of Research Commons in the library

4.1.13. Usage of the Research Commons

Although 120 (92%) respondents indicated that they were aware of the Research Commons available in the library, 64 (53%) of the respondents indicated that they used the Research Commons daily, 30 (25%) used the Research Commons weekly and 26 (22%) used the Research Commons monthly. Ten respondents did not answer this question. The significant findings of this study reveal that respondents utilized the research commons daily. This may be because they had a lot of work and they also had to meet deadlines. Another probable reason could be that there were valuable and relevant services available in the library. Bhim (2016: 15) states that the research common is a service offered to postgraduate students which is a quiet research space within the library and is for researchers and postgraduate students. Since research commons is also a service that is offered by academic libraries, the study hoped to investigate if postgraduate students use library services in academic libraries in KwaZulu-Natal or not. Based on the findings, it is evident that respondents used the Research Commons.
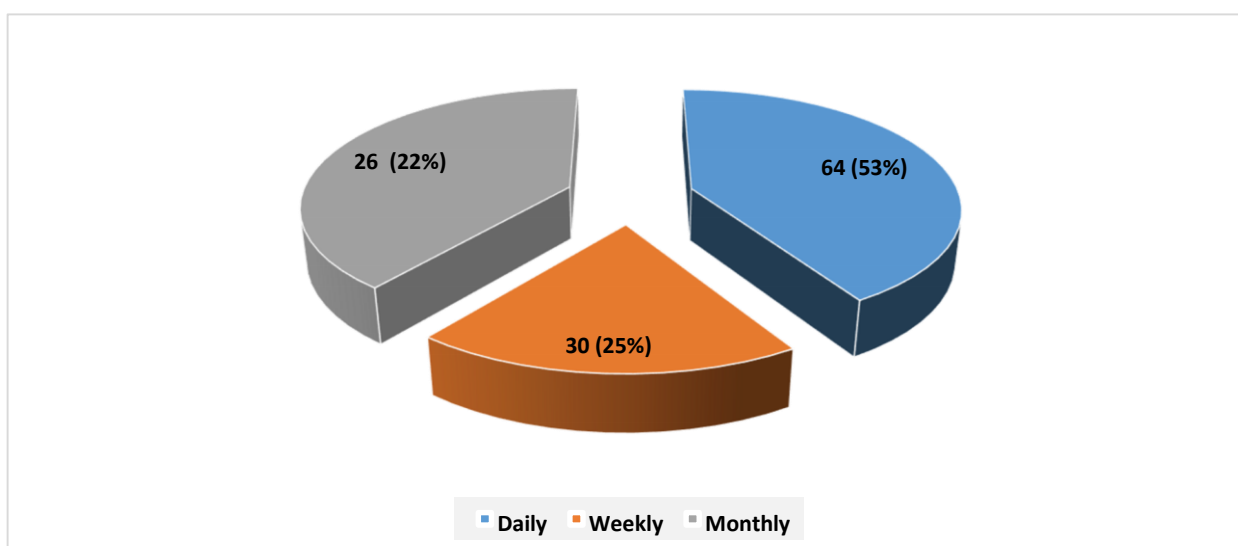
[N=130]

Figure 4.10 Usage of Research Commons

4.1.14. Resources used in the Research Commons

The results in figure 4.11 revealed that 40 (33%) respondents used the research commons to do research, 9 (8%) used it for typing, 39 (33%) utilized the research commons to search for library materials, 22 (18%) for photocopying and printing, and 10 (8%) used the research commons to connect to the internet. Ten respondents did not respond to this question. Most respondents 40 (33%) used the Research Commons to do research. This may be because Research Commons is mainly for research purposes and it gives postgraduate students the opportunity to conduct their research in a quiet space without any interruptions. As Bhim (2016: 15) mentioned, postgraduate students use the research commons for various reasons such as doing research, access the library website, photocopying and printing as well as connecting to the internet.
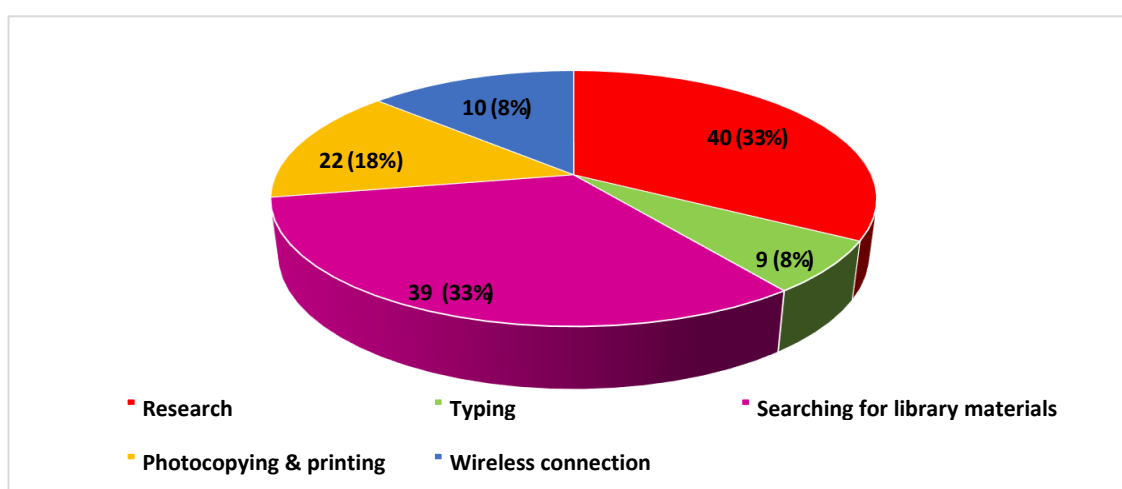
[N=130]

Figure 4.11 Reasons for using the Research Commons

4.1.15. Postgraduate/ Subject Librarian in the library

As illustrated in Figure 4.12, 100 (77%) respondents indicated that they had a Postgraduate/Subject Librarian, while 30 (23%) respondents indicated that they were not aware of a Postgraduate/Subject Librarian. The availability of a Postgraduate/Subject Librarian in the library was understood to be the crucial factor as far as student centeredness is concerned. This could be because Postgraduate Librarians are there to assist postgraduate students with research and how to access information in the library. This could also be because supervisors and research officers conduct training and create awareness on the use of postgraduate services. However, some respondents 30 (23%) were not aware of a Postgraduate Librarian. This may be because they were just consulting with any library staff member that was available at that time. According to Kumara et al. (2014: 213) all institutions have postgraduate librarians or subject librarians that offer research services to postgraduate students. This study wanted to investigate postgraduate students' awareness regarding library services in academic libraries in KwaZulu-Natal. Postgraduate students were aware of the availability of Postgraduate Librarians in their library.
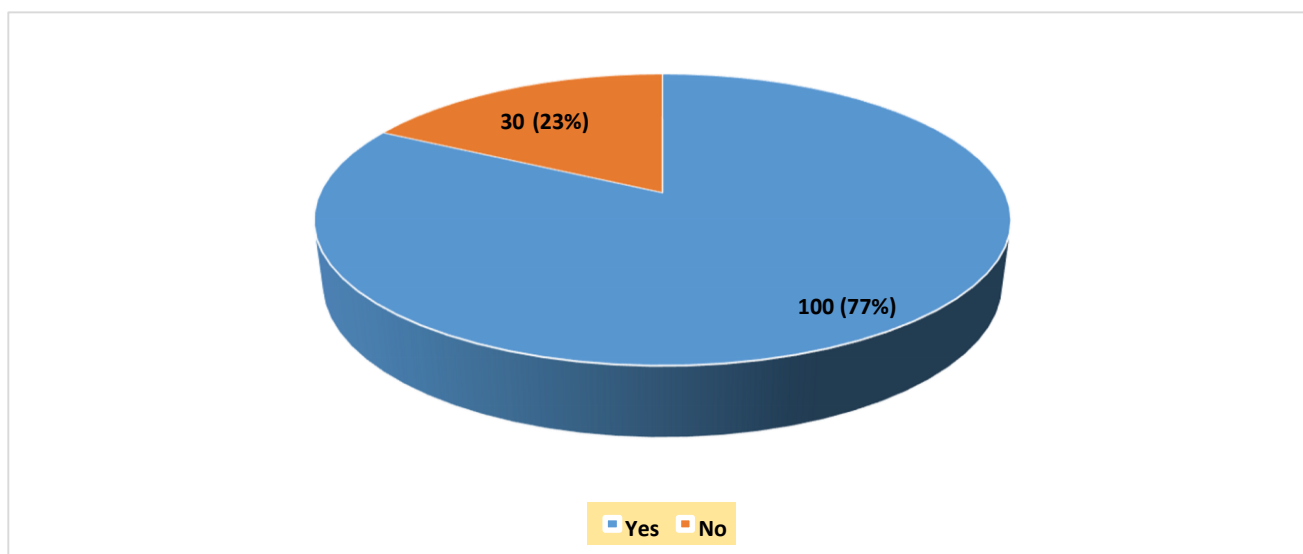
[N=130]
Figure 4.12 Availability of a Postgraduate/Subject Librarian in the library

4.1.16. Other library staff who assist postgraduate students

Seventy-seven (59%) of respondents indicated that they received assistance from Subject Librarians, 34 (26%) consulted with the writing center staff and 19 (15%) consulted with the circulation staff. It can be concluded that postgraduate students were assisted by any Subject Librarians available at that time. This may be because Subject Librarians and Postgraduate Librarians do similar jobs and any of them can assist postgraduate students with any queries. Librarians deliver services in a way that answers the students' needs in a timely and personalized way with continuity (Reale (2016: 9). Postgraduate Librarians also undertake training and attend to departments meetings to promote the postgraduate services. This study wanted to determine if postgraduate students use library services or not. It can be concluded that postgraduate students do consult with Subject Librarians when they need assistance.
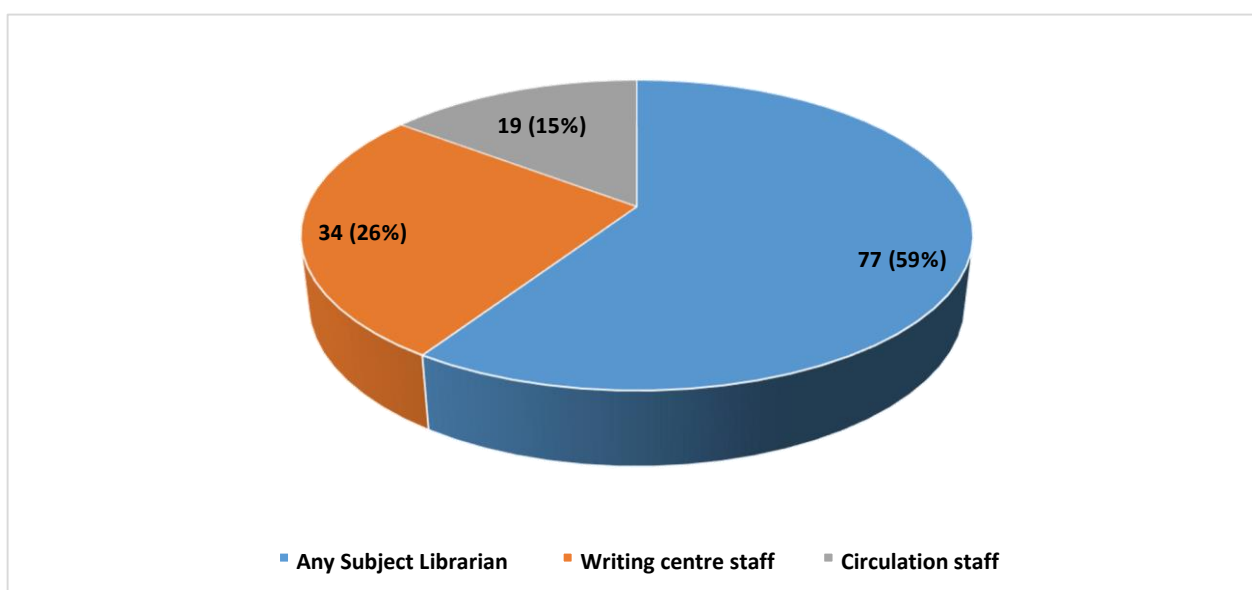
[N=130]

Figure 4.13 Library staff who assist postgraduate students in the absence of a Postgraduate Librarian

4.1.17. Role of Postgraduate Librarians

The 100 postgraduate students who acknowledged to being aware of Postgraduate Librarian (figure 4.12) were asked to indicate what the Postgraduate Librarians assist them with. Figure 4.14 reflects that postgraduate students are assisted with research eleven (8%), referencing 10 (8%), EndNote 27 (21%), access to resources 33 (25%), and TurnItIn 19 (15%). Thirty (23%) of respondents did not answer this question. Most respondents indicated that postgraduate librarians assist them with accessing e-resources. This could be because the core function of Postgraduate Librarians is to facilitate research and assist postgraduate students in finding the relevant information. Postgraduate Librarians play a vital role in providing teaching and research facilities to students, hence Nzivo (2012: 110) emphasizes that postgraduate librarians need to ensure that "the information needs of students are met through provision of valid, relevant and user driven information resources." This study wanted to identify challenges faced by postgraduate students when utilizing library services. Therefore it can be concluded that Librarians are available to assist postgraduate students when they are having trouble accessing library servicers.
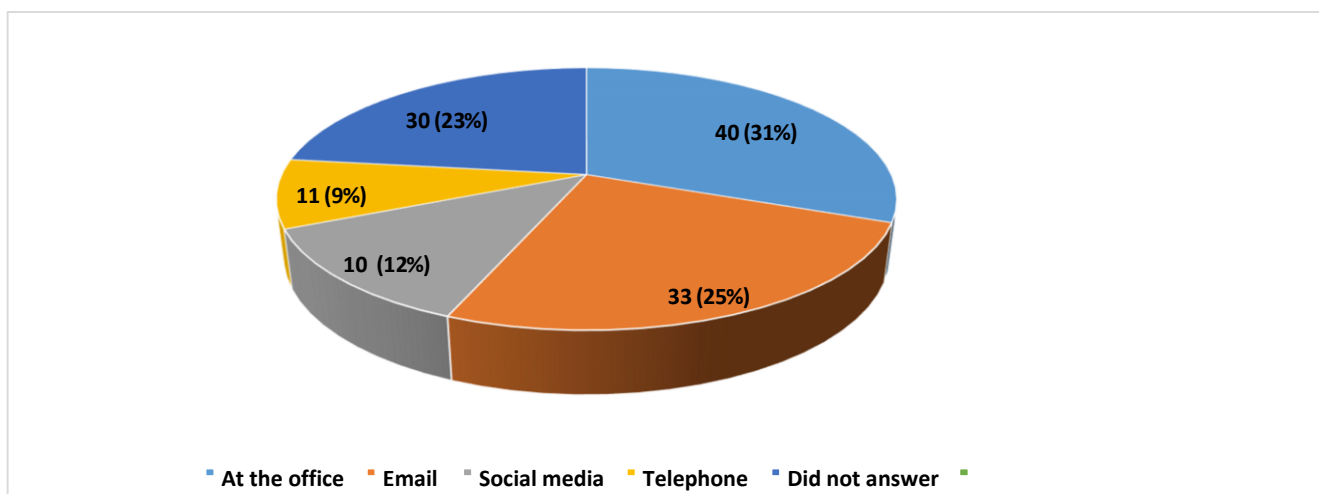
[N=130]
Figure 4.14 Role of a Postgraduate Librarian (n=130)

4.1.18. Communication methods

Librarians directly in their offices, while 33 (25%) of respondents communicated through Email, 16 (12%) through social media, eleven (9%) used the telephone as a method of communication and 30 (17%) did not respond to the question. It is evident that a majority of 40 (31%) respondents from this study preferred to consult with their postgraduate librarian directly from their offices in the library. This may be because postgraduate students thought it was more convenient to have a one-on-one meeting so that they could easily understand what was expected of them. Reale (2016: 32) states that librarians need to establish contact early and often with students, setting up initial appointments with each of them where they discuss, among other things, what concerns they may have with the materials in the library and how they may help them specifically is a good place to start. The study wanted to investigate if postgraduate students use library services or not. Based on the results in Figure 4.15, it can be concluded that postgraduate students use library services by communicating with the Postgraduate Librarians through various communication channels.
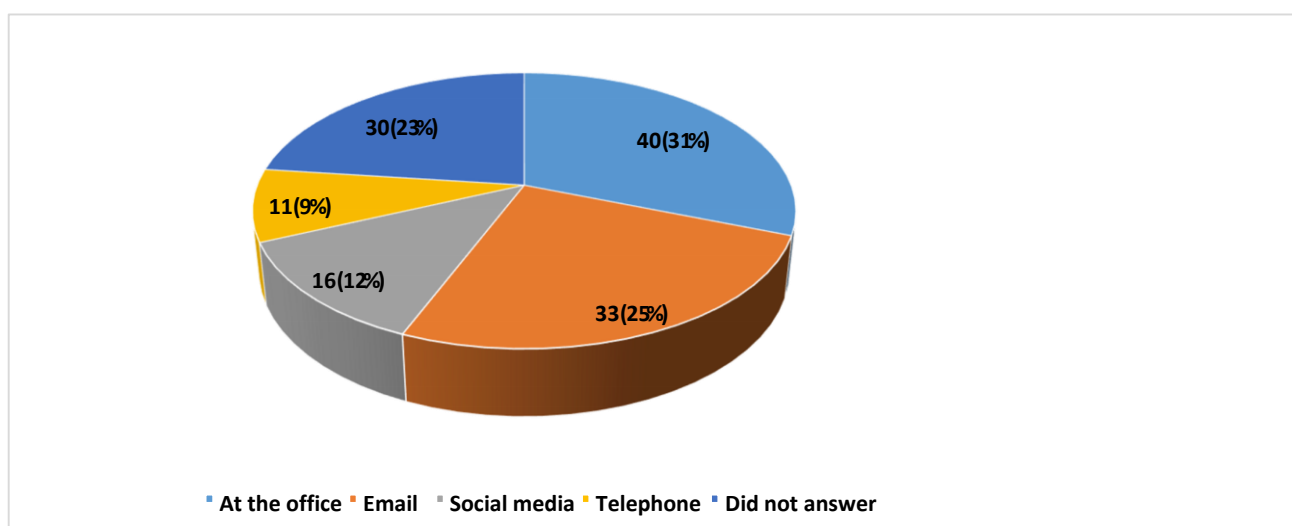
[N=130]

Figure 4.15 Communication methods

4.1.19. Impact of library services on postgraduate studies

As illustrated in Figure 4.16, 127 (98%) respondents indicated that online databases have assisted them in finding articles to compile literature reviews and three (2%) respondents did not feel that way.

With the help of postgraduate librarians 79 (61%) respondents were able to search and export references from online databases while 21 (16%) disagreed and 30 (23%) respondents did not answer this question.

One hundred and twenty respondents (92%) indicated that they were now able to access the plagiarism detection tool called TurnItIn and ten (8%) respondents disagreed. About 67 (52%) respondents agreed that the writing center helped them with strategies for writing in different disciplines, 33 (25%) respondents disagreed and 30 (23%) did not respond to this question.

Through Inter-Library Loans 125 (96%) respondents were able to get books from other institutions related to their study, however five (4%) respondents disagreed.

In order to understand how library users feel about library services, the library needs to investigate users' perceptions regarding their services. This will make it easier for the library to improve where necessary and ensure that the services that they offer meet the specific needs of their users (Beaumont 2012:6). Hence the objective of the study that aimed to ascertain post-graduate students' perceptions regarding library services in academic libraries in KwaZulu-Natal, and the findings revealed that postgraduate students agreed that library services made a positive impact on their studies through teaching, learning and research.
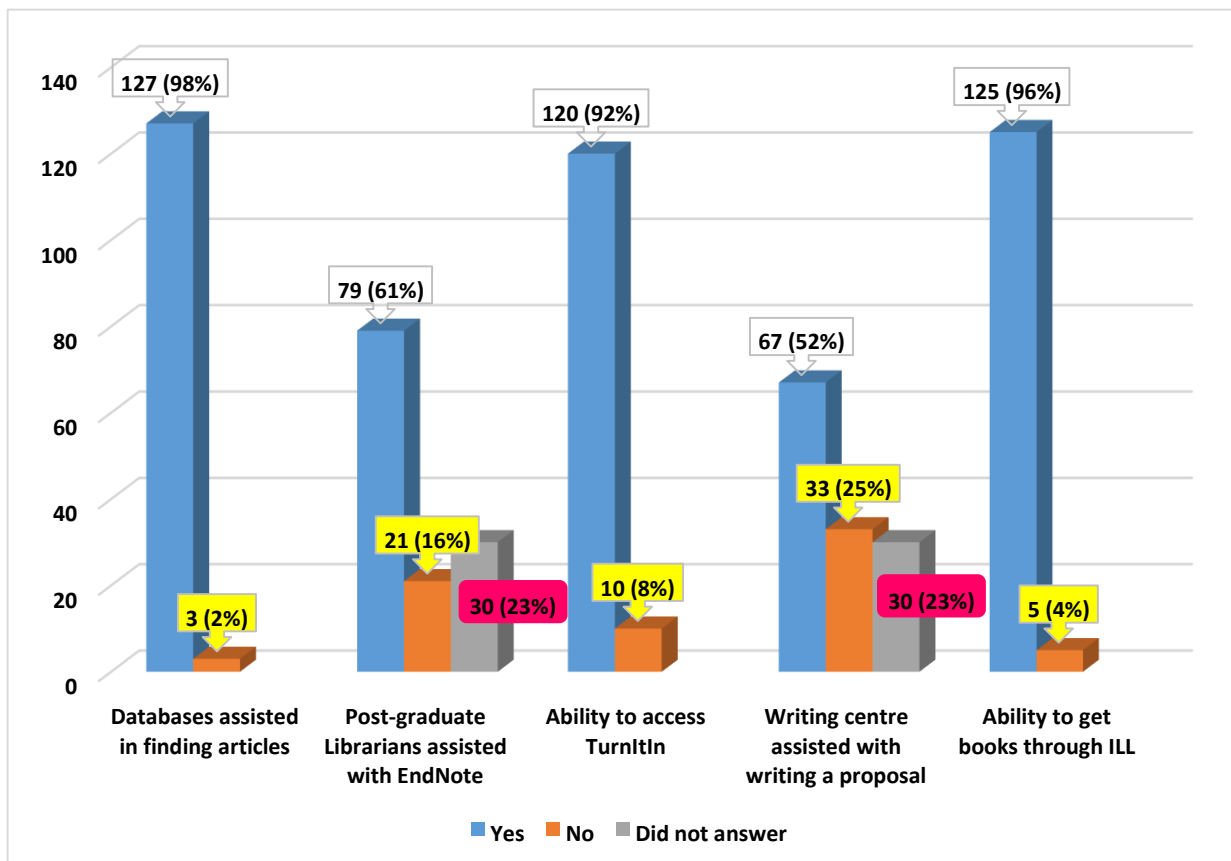
[N=130]

Figure 4.16 Impact of library services on postgraduate studies

4.1.20. General comments on postgraduate library services and impact on postgraduate studies Respondents were asked to make any further comments regarding the Impact of library services on postgraduate studies. Respondents provided the following varied comments.

	Comments
1.	Postgraduate services have assisted respondents immensely towards their studies, but the library still need to improve on regular training on various aspects of research tools.
2.	Postgraduate Librarians are playing a big role in assisting postgraduate students with their research.
3.	The library does an exceptional work thus far.
4.	Without the library, it would be difficult to accomplish postgraduate studies.
5.	The library has a very helpful program that assists students when doing their research.
6.	Finding electronic resources is now easy.
7.	It is easy to find up-to-date e-books and articles.
8.	The library assisted postgraduate students in finding information resources that will cater for their needs.
9.	EndNote makes it easy to do export references from online databases.
10.	Electronic resources are very helpful.
11.	The Research Commons should open 24/7.
12.	Not aware of some services available at the library.
13.	Poor internet connection and slow computers is a big issue.
14.	The Research Commons must be strictly for postgraduate students.

[N=130]

Table 4.2 General comments on postgraduate library services and impact on postgraduate studies

4.2. Summary

This chapter presented findings of the study resulting from analysis of data collected via self-administered questionnaires. Findings were presented in a form of graphs and tables using Microsoft Excel. This study revealed that majority of respondents were using the library services offered by academic libraries in KZN and they agreed that library services have made a positive impact on their studies. Challenges that postgraduate students come across when utilizing library services were also discussed. The next chapter provides a summary of the main findings and discussion of these findings in terms of the objective of the study and the literature reviewed. Based on these discussions, conclusions are drawn, and recommendations.

CHAPTER FIVE
Conclusions and Recommendations

5.1. Introduction

Chapter four presented findings based on the analysis of data that was collected from the survey of postgraduate students in three academic libraries in KwaZulu-Natal (DUT, UKZN and UNIZULU). This chapter discusses the main findings relevant to the objectives of the study and their corresponding research questions in the context of the literature reviewed for the study. Based on this discussion, conclusions are drawn, and recommendations are made. Hence it is necessary to restate the objectives and research questions of the study.

5.2. Objectives of the study

The objectives of the study were as follows:

  i.   Determine if postgraduate students use the library services in KwaZulu-Natal academic libraries.

  ii.   Identify challenges faced by postgraduate students when utilizing library services; and

  iii. Ascertain postgraduate students' perceptions regarding library services in academic libraries in KwaZulu-Natal.

5.3. Discussion of critical questions

This study generated the following critical questions to meet the above mentioned objectives.

5.3.1. Do postgraduate students make use of library services in academic libraries in KwaZulu-Natal?

This study revealed that the majority of the respondents 130 (75%) used the library and 43 (25%) of the respondents did not use the library due to the fact that the library was too busy and noisy, some did not know how the library works so they preferred to work from home. For this reason, a better understanding and collaboration between the departments and academic libraries is therefore essential as library training has a significant impact on postgraduate students. Academic library needs to train all postgraduate students on how to access library services anywhere, anytime. Postgraduate students should be provided with means or forum where they can lodge any complaints concerning the inefficiency or effectiveness of services, resources and facilities provided by the library. Over and above providing a conducive atmosphere for reading and consultation of relevant facts and data, the library also offers a

variety of facilities and services to enable readers to make optimal use of library resources" (Iwu,-James, Haliso and Ifijeh 2020: 159). Moreover, there are strategies that can be put in place to establish teaching style and encouraging postgraduates to make use of library services. In his discussion, Reale (2016: 32) elaborate on the fact that librarians need to establish contact early and often with students, setting up initial appointments with each of them where they discuss, amongst other things, what concerns they may have with the materials in the library. How one may help them specifically is a good place to start. This will certainly make postgraduate students feel comfortable to visit the library and ask for assistance, in return, utilize the library services. Furthermore, postgraduates should be encouraged to fill out an intake form that will collect information from them and help one establish a baseline idea of their strengths and difficulties are with research (Reale 2016: 32). Literature reviewed in this study supports the above mentioned finding that, postgraduate students use library services. Thus this statement is proven to be true and literature reviewed supports this finding. This study found that, 50 (33%) postgraduate students used the research commons to do research, 10 (7%) for typing. Forty-nine (32%) postgraduate students used the research commons to search for library materials, 22 (15%) used the research commons for printing and photocopying, while 20 (13%) used the research commons to access the internet. It is vital for library staff to examine the frequency of use of library services by the users to improve service quality where necessary and get feedback from the students. Therefore, it is imperative for academic libraries to maintain awareness on the optimization of those services to improve user satisfaction (Burhansab, Batcha and Ahmad 2020: 12).

5.3.2. What challenges do postgraduate students come across when utilizing library services?

Although this study found that postgraduate students used library services, the majority of them are still faced with challenges. This study proved that there are challenges associated with accessibility and availability of library services. This study revealed that, 127 (73%) of respondents were able to access library services remotely, whereas 46 (27%) of respondents indicated that they were not able to access library services remotely to difficulty in logging in, some respondents indicated that they did not know their username and passwords. This study also noted that online journals were difficult to access, limited access to the Research Commons (respondents required 24/7 access), sometimes the Research Commons is booked for workshops and students are forced to leave the venue. Some challenges include poor internet connection and inability to access the library catalogue, not being able to locate books from the shelves. Lack of recent information resources was also a major challenge that postgraduate students faced. According to (Akporhonor and Akpojotor 2016: 6) information retrieval, inability to use suitable key words, lack of information literacy skills, limited computers

and poor connectivity are some of the challenges that postgraduate students come across when utilizing library services. Other challenges faced by postgraduate students include inadequate training, inability to access library resources, noise from library users as well as inadequate library opening hours (Okogwu 2019). According to Akporhonor and Akpojotor (2016: 13), students found it difficult to find information as they struggled to navigate through some of the websites. Moreover, download delays, inability to obtain some journals, the unavailability of some websites and difficulties in navigating through electronic resources were also highlighted as some of the challenges that postgraduate students come across (Akporhonor and Akpojotor 2016: 7). Literature reviews proves the above mentioned statement to be true that postgraduate students experience some challenges when utilizing library services. Furthermore, findings of this study played a pivotal role in terms of answering the above mentioned critical question.

5.3.3. What are postgraduate students' perceptions regarding library services in academic libraries in KwaZulu-Natal?

Postgraduate students were satisfied with the services that were offered by the library hence they rated the services as excellent (83%), while (59%) indicated that the library assisted them in writing their research proposals. This study found that (58%) of respondents agreed that online databases have assisted them in finding articles to compile literature review. Overall, majority of respondents were happy with the services that are provide by their libraries. They indicated that postgraduate librarians played a big role in assisting them with their research. However, 31% of respondents indicated that library services made no impact on their studies, they felt that the library still needs to improve on regular training on various aspects of research tools. Findings of the study that was conducted by (Andoh, Appiah and Agyei 2020: 129) revealed that students showed some level of dissatisfaction with library services. The authors further state that on the other hand students were happy with the library's e-resources as they contributed positively to their research work. "Since academic libraries are an integral part of the education system, how they are perceived determines their smooth existence and value to the users" (Namurega 2014: 743). Academic libraries should therefore contribute to the goals of the system as a whole and respond to the changing needs of postgraduate. Findings of this study together with literature reviewed answered the above critical question.

5.4. Recommendations of the study

Based on the above discussions and conclusions, this study makes the following recommendations:

5.4.1. Dissatisfaction with the information resources

Results in Figure 4.2 revealed that 30 (19%) respondents did not use the library services due to dissatisfaction with the information resources provided in the library, lack of new textbooks, journals and other recreational materials. Respondents in this study also highlighted that the library was too busy, and the noise level was too high. Academic libraries need to provide up to date information resources such as online journals, ebooks and online databases to satisfy the needs of their users. Also, the noise level must be controlled in the library by putting up library notices and make an announcement every hour to remind users to keep their voices down. Postgraduate students should be provided with means or forum where they can lodge any complaints concerning the inefficiency or effectiveness of services, resources and facilities provided by the library. Pinfiled, Cox and Rutter (2017: 58) recommend that library staff should examine the "frequency of use of library services" by the users to get feedback from the students and improve service quality where necessary.

5.4.2. Challenges faced by postgraduate students

Some of the challenges that postgraduate students faced (as highlighted in section 4.2.20) were poor ventilation, lack of space, slow internet connection. Due to these challenges, it was hard for postgraduate students to utilize library services. To ensure that the library environment is conducive for studying, electricity supply should be restored to the university campuses and in the library for postgraduate students to make maximum of resources and services of the library. Internet providers should develop their network to be adequate and make sure that the Wi-Fi is always operational. Library space should be extended to accommodate more students and ensure that the air conditioner is in good working condition. Librarian must also conduct surveys to find out how postgraduate students feel about the library services and where the library needs to improve. In order to understand how library users feel about library services, the library needs to investigate users' perceptions regarding their services. Understanding users' perceptions helps the librarians to provide relevant services that will meet the specific needs of their users and improve where necessary (Reale 2016: 56).

5.4.3. Library collection review

In Figure 4.2, 30 (19%) respondents indicated that the library did not provide current and up to date resources such as textbooks and electronic resources. It is important for libraries to provide current information resources. The librarians must constantly review the library collection and add new materials when needed. This can be achieved by liaising with academics to find out what information resources postgraduate students need. The library should subscribe to current journals and databases. It is important for academic libraries to

provide a variety of facilities and services to enable users to make optimal use of the library resources (Paul and Criado 2020: 278).

5.4.4. Training

In section 4.2.10 respondents were asked to share general comments regarding postgraduate and they indicated that postgraduate services have assisted them immensely towards their studies, but the library still needs to improve on regular training on various aspects of research tools. Academic libraries need to create more awareness about the trainings they offer so that all postgraduate students can attend. According to Snyder (2019: 265) training is crucial to the quality of postgraduate student's academic course work.   If training is not done properly, postgraduate students will not be equipped with research skills. Therefore, there will be no value in providing library services if postgraduate students cannot access the services.

5.4.5. Marketing of postgraduate services

Results of this study in Section 4.12 revealed that some respondents 10 (8%) were not aware of postgraduate library services offered by the library such as the Research Commons. Therefore, it is recommended that academic libraries should market postgraduate services on a regular basis to increase awareness. This can be done through library displays, posters, and email communications to all postgraduate students informing them about the library services available for them. Academic libraries must create awareness regarding library services that are offered so that all postgraduate students can be aware (Popoola 2015: 176). One of the things that the library has done well is to train postgraduate students on how to access library services remotely. As shown in Figure 4.5 majority of respondents 127 (98%) were able to access library services and resources even if they were not on campus. According to Perez (2014: 2) this could be because "academic libraries train their students on how to access library resources remotely".   "Library users obtain access to a great variety of local or remote information which they can access immediately whenever they want it" (Yeh and Walter 2016: 57). However, more training should still be provided for those postgraduate students 3 (2%) that are struggling to access library services remotely.   Also, postgraduate should be encouraged to attend the training.   Academic libraries should regularly organize training programmes for postgraduate students on the use of library resources and services.

5.5.   Summary and conclusion

This final chapter has been integrated with the findings on perceptions of postgraduate students regarding library services in KwaZulu-Natal. It also provides the literature relating to the study objectives and recommendations of the study. The findings of from the study show that postgraduate students were satisfied with library services and the library services made a positive impact on their postgraduate studies. However, it is recommended that academic

libraries should provide up to date library resources to satisfy postgraduate students' information needs. The findings of this study presented will benefit academic libraries in KZN (DUT, UKZN and UNIZULU) in relations to how post-graduate students feel about the services that are offered by the library. The findings of this study will assist academic library to see where they can improve their services to meet the information needs of postgraduate students. The researcher in this study believed that all the objectives of the study were met. It is also believed that all the critical research questions were met, and data collection tool used covered all the research questions. This study acknowledges the input of all academic libraries staff to support the ongoing of the study. It also acknowledges the support of all the institutions that granted the researcher with permission to collect data.

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Appendix A
Letter of Information and Consent

LETTER OF INFORMATION

Title of the Research Study: A framework of postgraduate library services in academic libraries in KwaZulu-Natal

Principal Investigator/s/researcher: (Iviwe Yengwa, Master of Management Sciences in Library and Information Studies)

Co-Investigator/s/supervisor/s: (Dr Naresh Sentoo, D. Admin and Ms Portia Rakoma**)**

Brief Introduction and Purpose of the Study:

Outline of the Procedures: (The purpose of the study is to investigate perceptions of postgraduate students regarding library services in academic libraries in KwaZulu-Natal. The study aims to investigate how postgraduate students perceive library services, challenges that they come across when utilizing library services and how those challenges can be resolved. Participants are expected to answer the questionnaires with honesty and return them when they are finished or asked to return them. The population of the study is postgraduate students from DUT, UKZN and UNIZULU Library).

Risks or Discomforts to the Participant: (The study has no risks or discomforts to participants.)

Benefits: (The study will benefit both the academic libraries as well as postgraduate students. Challenges that postgraduate students maybe facing will be addressed. The researcher will get an opportunity to present her study in conferences and DUT research program)

Reason/s why the Participant May Be Withdrawn from the Study: (There will be no adverse consequences for the participant should they choose to withdraw. If the participant is sick and unable to participate, he or she will be withdrawn from the study) **Remuneration:** (The participants will not receive remuneration; they will be assured that participation is voluntary)

Costs of the Study: (Participants will not cover the costs for the study)

Confidentiality: (Participants will remain anonymous when filling the questionnaires, this will be achieved by making sure that no names and signatures of participants will be required. The researcher only will know results from data collection)

Research-related Injury: (There will be no compensation since the study does not contain risks factors to participants)

Persons to Contact in the Event of Any Problems or Queries:

Please contact the researcher: Miss Iviwe Yengwa (00313732487/60), my supervisor: Dr N. Sentoo (0313736775) or the Institutional Research Ethics Administrator on 031 373 2900. Complaints can be reported to the Director: Research and Postgraduate Support, Prof S Moyo on 031 373 2577 or moyos@dut.ac.za

CONSENT

Statement of Agreement to Participate in the Research Study:

☐ I hereby confirm that I have been informed by the researcher, Ms Iviwe Yengwa, about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number:

☐ I have also received, read and understood the above written information (Participant Letter of

Information) regarding the study.

☐ I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.

☐ In view of the requirements of research, I agree that the data collected during this study can be processed in a computerized system by the researcher.

☐ I may, at any stage, without prejudice, withdraw my consent and participation in the study.

☐ I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.

☐ I understand that significant new findings developed during this research which may relate to my participation will be made available to me.

_____

Full Name of Participant   _____ _____ _____   **Thumbprint**   **Date**   **Time**   **Signature / Right**

I, _____ (name of researcher) herewith confirm that the above participant has been fully
informed about the nature, conduct and risks of the above study.

_____   _____   _____
Full Name of Researcher   **Date**   **Signature**

_____ _____
Full Name of Witness (If applicable) Date   **Signature**

_____   _____

Full Name of Legal Guardian (If applicable)   Date   Signature

Appendix B

Covering letter to self-administered questionnaire

Dear Respondent

QUESTIONNAIRE ON A FRAMEWORK FOR POSTGRADUATE LIBRARY SERVICES IN ACADEMIC LIBRARIES IN KWAZULU-NATAL

This survey is being undertaken in the fulfilment of the Master of Management Sciences in Library and Information Science Degree at the Durban University of Technology (DUT).

The main purpose of this survey is to determine the perceptions of postgraduate students on library services. The study will benefit students and academic libraries in KwaZulu-Natal because it will provide recommendations for quality library services.

Your cooperation in completing this questionnaire is greatly appreciated. You are assured that your responses to the questions will be treated with great confidentiality and will be used strictly for research purposes.

Your cooperation is highly appreciated.

Yours sincerely.

_____

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Appendix C
Self-administred questionnaire for a framework for postgraduate library services in academic libraries in KwaZulu-Natal

A framework for postgraduate library services in academic libraries in KwaZulu-Natal

SURVEY QUESTIONNAIRE FOR POSTGRADUATE STUDENTS

Please answer all questions. Where options are provided, please indicate your answer by placing a cross (X). Confidentiality is assured.

Please take note that the questionnaire consists of three sections, namely:

SECTION A: LIBRARY SERVICES

SECTION B: POSTGRADUATE SERVICES

SECTION C: IMPACT OF LIBRARY SERVICES ON POSTGRADUATE STUDIES

1. Please indicate at which institution you are currently studying?

Institution	Select
Durban University of Technology (DUT)	
University of KwaZulu-Natal (UKZN)	
University of Zululand (UNIZULU)	

2. What level of study are you currently pursuing? Kindly specify the field/ discipline.

Qualification	Select	Field/ Discipline
Honours degree		
Masters degree		
PhD		
Other (please specify):		

SECTION A: LIBRARY SERVICES

1.   Do you use the library?

Yes	
No	

If you answered No to Question 1 please answer Question 2 and ignore the rest of the questions from section A.

2.   Please explain why you do not use the library?

_____

_____

_____

_____

3.   How often do you use the library?

	Select
Daily	
Weekly	
Monthly	

4.   Kindly rate each of the following library services

Library services	Rate the library services		
	Excellent	**Good**	**Poor**
1. Inter-Library Loans			
2. Electronic resources (databases, e-books, journals)			
3. Computers			
4. IT support			
5. EndNote			
6. TurnItIn			
7.Photocopying & printing			
8. Writing centre			

5. Are you able to access library services remotely?

Yes	
No	

6. If your answer to **Question 5** is **Yes**, how do you access the library services?

	Select
Mobile phone	
Laptop	
Computer Lab at my institution	
Internet café	
Other (please specify):	

7. Does your library provide training on library services?

Yes	
No	

If you answered No to question 7 please ignore questions 8, and 9.

8. Have you attended the training?

Yes	
No	

If you answered **No** to **Question 8**, please explain why.

_____

_____

_____

9. What challenges did you encounter when utilizing library services? (Please explain)

_____

SECTION B: POSTGRADRUATE SERVICES

1. Do you have a Research Commons at your library?

Yes	
No	

If the answer to Question 1 is No, please explain why and ignore Questions 2 & 3.

_____

_____

_____

2. How often do you use the Research Commons?

	Select
Daily	
Weekly	
Monthly	

3. What do you use the Research Commons for? (You may select more than one option)

Reason	Select
Research	
Typing	
Searching for library materials (e.g. books, databases, journals)	
Photocopying & printing	
Wireless access	
Other (please specify):	

4. Do you have a postgraduate Librarian at your library?

Yes	
No	

5. If you selected **No** to **question 4**, who assists you with research related queries?

	Select
Any Subject Librarian	
Writing centre staff	
Circulation staff	
Other (please specify):	

6. If you answered **Yes** to **question 4**, what does your Post-graduate librarian assist you with? (You may select more than one option)

	Select
Referencing	
Editing research	
How to access online resources	
EndNote programme	
Turnitin	
How to structure your research	
Other (please specify)	

7. How do you communicate with your post-graduate Librarian? (You may select more than one option)

Method of communication	Select
Directly at his/ her office	
Email	
Telephone	
Social media	

SECTION C: IMPACT OF LIBRARY SERVICES ON POSTGDRADUATE STUDIES

1. Please respond to each of the following statements

Statement		Agree	Disagree
1.	Online databases have assisted me in finding articles to compile my literature review.		
2.	With the help of the postgraduate librarian I was able to search and export references from online databases.		
3.	I am now able to access the plagiarism analysis tool called Turnitin.		
4.	Library orientation helped me understand what information resources are available at the library		
5.	The writing centre helped me with strategies for writing in different disciplines		
6.	Through Inter-Library Loans I was able to get books from other institutions which are related to my study.		
7.	With the assistance of post-graduate librarians, I am now able to do referencing.		

2. General comments on postgraduate library services and impact on your studies.

_____
_____
_____
_____

Thank you for your time and effort in completing this questionnaire.

_____

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Durban, KwaZulu-Natal

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