

AN INVESTIGATION OF ACCESS TO INFORMATION BY STUDENTS
WITH VISUAL IMPAIRMENT AT UNIVERSITY OF NAMIBIA
LIBRARY, MAIN CAMPUS

A research project report submitted in partial fulfillment of the requirements
for the degree of Bachelor of Arts in Library and Information Science
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By

Febbe N. Shilongo

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Supervisor: Prof. Cathrine Nengomasha

Abstract

The aim of this research report was to investigate the access to information by students with visual impairments at University of Namibia Library, main campus. This study made use of Wilson's model of information. A case study research design was used and the study made use of interviews as a data collection method. The population of this study was UNAM Library staff and visually impaired students at UNAM, main campus. The study applied purposive sampling technique to select the Librarians, and convenience sampling technique to select the students. Librarians were selected purposively because of their better understanding of the topic being study and students were selected because their availability. Interviews were conducted with librarians and students, and interview guides were provided. To analyze qualitative data, the content analysis method was used. The study revealed that various services were offered to visually impaired students to enable them success their studies. Furthermore the study showed that the service provided were not user friendly and the study also discovered that services provided were not all in the right format. The study recommends UNAM library management to allocate enough funds to purchase necessary equipment for the provision of information. The study proposes a study on the provision of information services to other UNAM campuses.

Contents

Abstract.....	2
LIST OF TABLES.....	iv
ACKNOWLEDGEMENTS.....	v
DEDICATION.....	vi
DECLARATION.....	vii
LIST OF ABBREVIATIONS AND ACRONYMS.....	viii
CHAPTER ONE.....	1
INTRODUCTION.....	1
1.1. Introduction.....	1
1.2. Orientation of the study.....	1
1.3. Statement of the Problem.....	2
1.4. Research questions.....	3
1.5. Significance of the study.....	4
1.6. Limitations of the study.....	4
1.7. Delimitations of the study.....	4
1.8. Methodology.....	4
1.9. Definition of key terms.....	6
1.10. Layout of research report.....	7
1.11. Trustworthiness of the findings.....	8
1.12. Chapter summary.....	8
CHAPTER TWO.....	9
LITERATURE REVIEW AND THEORETICAL FRAMEWORK.....	9
2.1. Introduction.....	9
2.2. Information access services provided to students.....	9
2.3. Mechanisms in place to help visually impaired students.....	11
2.4. Challenges faced by visual impaired students in accessing information.....	12
2.5. Enhancing access to information by the visually impaired students.....	13
2.6. Theoretical framework.....	15
2.7. Chapter summary.....	16
CHAPTER THREE.....	18

RESEARCH METHODOLOGY	18
3.1. Introduction.....	18
3.2. Research Design.....	18
3.3. Data collection method	19
3.4. Population	19
3.5. Sampling	20
3.5. Research Instruments	20
3.6. Procedure	21
3.7. Data analysis	21
3.8. Research Ethics.....	22
3.9. Chapter summary	22
CHAPTER FOUR.....	24
DATA ANALYSIS AND PRESENTATION	24
4.1. Introduction.....	24
4.2 Demographic information of the Participants	24
4.2.1. Demographic data for librarians	24
4.2.2. Demographic data for students	25
4.3. Services to access information provided to students with visual impairments	26
4.3.1. The types of services.....	26
4.3.2. The ease of use of the services provided.....	27
4.4. Visually impaired students’ rights to access information services	28
4.5. Mechanisms the University Library put in place to help visually impaired students access information	29
4.5.1. The types of mechanisms.....	29
4.5.2. Adequacy and effectiveness of the mechanisms.....	31
4.6. Challenges the visually impaired students face in accessing information	31
4.7. Suggestions to enhance access to information by the visually impaired students at the University of Namibia Library.....	32
4.10. Summary	33
CHAPTER FIVE	35
DISCUSSIONS OF FINDINGS, SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	35
5.1. Introduction.....	35

5.2. Discussion of findings.....	35
5.2. The types of services.....	35
5.3. The ease of use of the services provided.....	36
5.4. Visually impaired students’ rights to access information services	37
5.5. The types of mechanisms.....	37
5.6. Adequacy and effectiveness of the mechanisms	38
5.7. Challenges the visually impaired students face in accessing information	38
5.8. Suggestions to enhance access to information by the visually impaired students at the University of Namibia Library.....	39
5.8.1. Librarians suggestions	39
5.8.2. Suggestion from students	39
5.3. Summary of findings.....	41
5.3.1. The types of services.....	41
5.3.2. The ease of use of the services provided.....	41
5.3.3. Visually impaired students’ rights to access information services	42
5.3.4. The types of mechanisms.....	42
5.3.5. Adequacy and effectiveness of the mechanisms	42
5.3.6. Challenges the visually impaired students face in accessing information	43
5.3.7. Suggestions to enhance access to information by the visually impaired students at the University of Namibia Library	43
5.4. Conclusions.....	44
5.4.1. What are the challenges that visual impaired students face in accessing information at University of Namibia library?	44
5.4.2. What are the challenges that visual impaired students face in accessing information at University of Namibia library?	44
5.5 Recommendations.....	44
5.6. Areas for further research	45
5.7. Final conclusion	45
References.....	46
APPENDIX A: INTERVIEW GUIDE FOR LIBRARIANS.....	47
APPENDIX B: INTERVIEW GUIDE FOR STUDENTS	49
APPENDIX C: INFORMED CONSENT FORM	50
APPENDIX D: INTRODUCTORY REQUEST PERMISSION TO CONDUCT RESEACH.....	51

LIST OF TABLES

Table2. Wilson's model of information 16

Table4.1. Librarian's demographic information..... 25

Table4.2. Student's demographic information 25

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DEDICATION

This research report is dedicated to my mother Linda, Mpollo, and Usko for raising me to be a brave and dedicated woman, as well as to my son Tangi-Omuwa, whom I hope to inspire with this work.

DECLARATION

I, Febbe Ndalulilwa Shilongo declare hereby that this study is a true reflection of my own research, and that this work or part thereof, has not been submitted for a degree in any other institution of higher education. No part of this research project may be reproduced, stored in any retrieval system, or transmitted in any form, or by any means (e.g. electronic, mechanical, photocopying, recording or otherwise) without the prior permission of the author, or the University of Namibia on her behalf.

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Fshilongo

December 2022

Student's Signature

Date

LIST OF ABBREVIATIONS AND ACRONYMS

UNAM University of Namibia

VP Virtual Impairment

JAWS Job Access with Speech

IFLA International Federation of Library Associations and Institutions

NGOs Non-governmental organizations

QR Qualitative Research

IPA Interpretative Phenomenological Analysis

UREC UNAM Research Ethics Committee

CHAPTER ONE

INTRODUCTION

1.1. Introduction

This chapter introduces the research area, therefore it covers the orientation of the study, specifically, the access of information to students with visual impairment. The chapter further looks at the statement of the problem, research questions, significance of the study, limitation of the study, and delimitation of the study. Finally, the chapter briefly looked at the research methodology, and concludes with the chapter summary.

1.2. Orientation of the study

People with disabilities (PWD) particularly visually impaired (VI) students, face problems in accessing library facilities and information resources. According to Naipal and Rampersad, (2018) Visual impairment (VI) is a condition of reduced visual performance that cannot be remedied by refractive correction (spectacles or contact lenses), surgery or medical methods. Consequently, it results in functional limitations of the visual system that may be characterized by irreversible vision loss, restricted visual field and decreased contrast sensitivity, increased sensitivity to glare as well as decreased ability to perform activities of daily living, such as reading or writing.

It is a well-known truth that some academic institutions' library facilities were built with little or no attention or consideration for the needs of handicapped people, limiting their access to library services (Ayoung & Baada, 2021). Access to information has been acknowledged as a basic human right, independent of ethnicity, religion, or physical limitations (Awais & Ameen, 2015). Previous studies have shown that there was a gap in this area whether the provision in accessing

of information by students with visual impairment is satisfactory. Previous studies have shown that web accessibility was still the focus of the investigation but print accessibility and other associated accessibility issues have been left in the dark (Hill, 2013).

Rafiq (2021) showed that in terms of access for the visually impairment students to the information in libraries in Pakistan, the students have utilized the interpersonal relationships as the primary source of academic information. Interpersonal relationship is when individuals interact with one another in a chain of interconnected and mutually beneficial interactions (Kanniammal, 2008).

The major barriers which were indicated by the Rafiq (2021), especially on the access of information to the visually impairment students, are format barriers, technical, barriers, ICTs and financial barriers (Rafiq, 2021). On another note, Rayini (2017) has emphasized on the development of the efficient library services for the disabled people. One of the emphasized points by Rayini (2017) is that, the libraries have moral obligation to make information available to all categories of users regardless of their gender, age, race, political affiliation or disability (Rayini, 2017). In 2003, the University of Namibia enrolled three visually impaired students for the first time (Enabler, 2008). Since then in 2019 for the first time, one visually impaired student graduated with a Master's degree from University of Namibia (Siririka, 2019). As per UNAM statistics five virtually impairments students were enrolled by the time. It is an indication that the enrolment and progress of the virtually impairments students at UNAM is low.

1.3. Statement of the Problem

Libraries need to provide their services to the visually impaired. There are challenges which the visually impaired face such as technical issues, hardware issue while accessing the information

on the internet (Ahmed & Naveed, 2019). Although using information resources can provide access to current and reliable material, observation by this researcher at the UNAM main campus has revealed that students with visual impairments rarely use these tools. Libraries have come up with strategies to enhance access of information by the physically challenged students which include the library staffs being knowledgeable about various disabilities and how to serve patrons with these disabilities visual impairment(Echezona et al., 2011). Materials specifically produced for persons with reading disabilities should be easy to find. These materials may include talking books, easy-to-read books, braille books and large print books (Irvall & Nielsen, 2005). Visually impaired students' inability to access information may have a negative impact on their performance. (Nasiforo, 2015). Therefore, it was crucial that this study be carried out because, as far as the researcher was aware, no such study had been carried out at UNAM Library.

1.4. Research questions

The following were the study's research questions:

- What information access services are provided to students with visual impairments?
- What mechanisms does the library put in place to help visually impaired students?
- What are the challenges that visual impaired students face in accessing information at University of Namibia library?
- What can be done to enhance access to information by the visually impaired students at the University of Namibia library?

1.5. Significance of the study

Creswell and Creswell (2018) defined significance of the study as a section that focuses on the study's relevance from adding to the body of knowledge, improving practices, and informing policy or decision-making. The study's findings would allow library management to make informed decisions about provision of information to the visually impaired students. This study findings could benefit library users with visual impairments as the findings could inform strategies to address their needs better. The study becomes very important to future researchers since it serves as the base for further research.

1.6. Limitations of the study

Limitations of the study according to Simon (2011) are challenges outside of the researcher's control that could have an impact on the study's methodology or results are its limitations. The study only focused on UNAM main campus due to financial constraints. Therefore, it left out views from other universities which could have enriched the findings.

1.7. Delimitations of the study

According to Enslin (2014) delimitation of the study entails the boundaries set by researchers. The study will only be done at the University of Namibia main campus; this means that the study did not focus on other UNAM campuses than main campus.

1.8. Methodology

This study used a qualitative approach. Qualitative approach is the research which includes the collection of large amount of information (Gaille, 2017). The qualitative research methodology includes the use of observations, interview, focus group and questionnaires (Demuth, 2015). The study will adopt a case study research design. A case study is an appropriate way to learn more

about a scenario that is underexposed or poorly understood, such as the requirement to investigate the access of information by students with visual impaired at UNAM. The data will be collected through interviews in order to gather information from participants. Interview is an important data gathering technique involving verbal communication between the researcher and the subject (Fox, 2000). Population refers to the set or group of all the units on which the findings of the research are to be applied (Satishprakash, 2020). The study population is UNAM Library staff, visually impaired students

A sample is a collection of individuals, things, or things collected from a large population for measurement in research (Bhardwaj, 2019). Sampling was done in order to obtain accurate data. The researcher collected data until data saturation. Many people refer saturation to as the point at which the data collection process stops producing any fresh or pertinent data. A research instrument, according to Kumar 2014, is a research tool that also serves as a way to gather data for a study. The researcher made use of semi-structured interview guides to collect data from the librarians. According to Mason (2004), semi-structured interviews are characterized by their flexibility and fluid framework, which distinguishes them from structured interviews. Open-ended questionnaires were used to collected data from the students.

Trustworthiness of the findings was ensured by interviewing several respondents on the same issue and comparing responses. Questions on the same issue were asked in the interview in different ways in the interview process to find out if the respondent would give the same answer, this way researcher was able to tell how honest and consistent the respondent's response was. The results from the study was be reliable and ensured the documentation of the methodology properly and reporting the findings honestly. A procedure is a set of actions that is the official or accepted way of doing something (Cambridge, 2021). Through the allocated supervisor the

researcher sought authorization from UNAM library to conduct the study. The researcher set aside a day for data collection, and participants chosen confirmed their availability on that day. Every participant interviewed individually; the interview took 30 minutes to make sure that they had enough time to answer the questions. According to Saunders et al. (2009) explained that data analysis is a process for collecting and analysis of qualitative data that involves three concurrent sub process of data reduction, data display, and drawing and verifying conclusion. The researcher interpreted data collected to create meanings. Thematic analysis was used to analyses data. Thematic analysis is data analysis method to analyze the qualitative and descriptive data a researcher gathers to solve his or her research problem (Anuradha, 2022). Data was presented in a narrative form.

1.9. Definition of key terms

The objective of this section is to define the terms used in this study.

People with disability: PWD is defined by People with disability (2022) as people who have physical, mental or emotional condition that keeps them from living a social or functional life which is deemed to be normal for their peers.

Virtual impairment: for the purpose of this study, VP has been used to refer to describe sight loss that cannot be corrected with glasses or contact lenses (Disability Resource Centre (DRC), 2022).

1.10. Layout of research report

This section outlines the arrangement of the report.

Chapter 1: Introduction – This chapter is an introduction to the report; presenting the orientation of the proposed study, statement of the problem, methodology used, definition of key terms, research ethics and chapter summary,

Chapter 2: Literature review and theoretical framework - the chapter provides inclusive literature with relevance to the research objectives.

Chapter 3: Research methodology – the chapter outlines and discusses how the qualitative method was applied to the study. Elements of data collection and analysis as well as trustworthiness of the findings are presented in this chapter.

Chapter 4: Data analysis and presentation – the chapter analyses and presents the data.

Chapter 5: Discussion of findings, summary, conclusions and recommendations – the chapter provides a comprehensive discussion of the data presented in chapter four, with literature coming from related studies. It also summarizes the findings, makes conclusions and provides recommendations as informed by the results of the study.

References: provides a list of all sources, articles, papers and all relevant source material used in the paper.

Appendices: this section provides all procedural documents used in conducting the study. It includes informed consent letters, research permission and ethical clearances letters, as well as the interview guides used to collect data.

1.11. Trustworthiness of the findings

The researcher ensured the trustworthiness of the findings by interviewing several respondents on the same issue and comparing responses. The researcher ensured that honesty and transparent were part of the procedures and no respondents were harmed or affected by others. The researcher asked in the interview the same issue in different ways apart in the interview process to see if the respondent would give the same answer, this way the researcher was able to tell how honest and consistent the respondents response were. Reliability was ensured by documenting the methodology properly and reporting the findings honestly. Lincoln and Guba (1985) state that trustworthiness in a qualitative research aim to determine the accuracy and credibility of the findings. In addition, Creswell (2012) also adds that validating findings means that the researcher determines the accuracy or credibility of the findings through strategies such as member checking or triangulation.

1.12. Chapter summary

The chapter introduced and orientated the study, emphasizing the importance of information to students. The problem statement acknowledged and identified the difficulties that students with visual impairment face in accessing information. The Chapter also clarified the overall research outline by discussing research methodology and design. The following chapter discusses the literature review.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. Introduction

This chapter discusses both the literature and theoretical framework. A literature review is a surveys scholarly articles, books and other sources relevant to a particular issue, area of research, or theory, and by so doing, providing a description, summary, and critical evaluation of these works. Literature reviews are designed to provide an overview of sources you have explored while researching a particular topic and to demonstrate to your readers how your research fits into the larger field of study (Fink, 2014). The literature reviewed is relevant to the research questions of this study, allowing the study to be placed in the appropriate context; in essence, the literature was organized to themes arising from the research questions. The goal of the chapter's literature review was to update the reader on earlier studies in the field of academic libraries and the use of information by students with visual impairments.

The following subheadings are used to discuss the literature review for the study: information access services provided to students, mechanisms in place to help visually impaired students, challenges faced by visual impaired students in accessing information, enhancing access to information by the visually impaired students

2.2. Information access services provided to students

The right of the visually impaired to have access to academic information services, is like any other member of society, is adequately captured in many policies, legislation and international agreements. However, one area that seems to be lacking is information accessibility.

Accessibility in the context of information technology refers to the degree to which services or software is easily usable (Iwata et al., 2013). The study of Matsuzaki, Hamamatsu, and Shibata (2020) defined information accessibility for students with disabilities as the transformation of text into textual data, braille, or speech format. Information is frequently available to the visually impairment students, although it is rarely useful to them. It is a pressing problem for the LIS community. Iram (2012) argued that because VIPs lack access to information, they are excluded from the information society. Since services are not bundled in the appropriate way, Pakistan's VIPs have limited access to information (Zia & Fatima, 2011). Awais and Ameen (2015) raised accessibility concerns in the disabled community. They also depicted attitudinal barriers as an impediment to information access. The study also discovered a lack of service design, ineffective infrastructure, poor policies, and insufficient resources, all of which contributed to poor performance. Regarding the number of visually-impaired students in Sudan, Abdelrahman (2016) reported an apparent shortage of library and technological equipment. Majinge (2014) revealed that libraries in Tanzania are facing a funding crisis in order to build services for people with visual impairments. Shunmugam (2002) emphasized that there are few resources accessible in South African higher education institutions for students with special needs. According to the World Health Organization (WHO, 2009) statistics, there are about 314 million visually impaired people globally with 45 million totally blind. Of these, 87% live in developing countries. Although visually impaired people cannot read the conventional print, they have the right to access information. That is, the right to read information in formats that are accessible to them. Friend (2009) stated that less than 5% of the information materials available to sighted library users are accessible to the visually impaired in Kenya.

2.3. Mechanisms in place to help visually impaired students

Higher education is a highly interactive social progress that aims to impart specific cognitive skills and provide relevant information. Its success is critical to the ease with which students can interact with lecturers, other students, and institutional librarians, as well as access available information. According to Lourens and Swartz (2016), a suitable mechanism for passing on information about daily events or programmes must be available in the institution in order to create a favorable environment. Academicians are not well-equipped to teach inclusively to pupils who are blind or visually challenged, according to Berggren et al. A touch sensor application with audio tags was created by Oppenheim. Through a study of users with normal vision and those with visual impairments, the technology was evaluated and found to be helpful. Therefore, it is advised to include the same in commercial gadgets, so that people with disabilities can use the complicated, foreign devices comfortably. According to Bodaghi and Zainab (2012) a lack of staff training in academic libraries is a major reason that deputed staffs have difficulty handling assistive tools and technologies and providing services to people with visual impairments. According to Bateman (2018) many devices have been developed but not tested with visually impaired users. As a result, it is suggested that libraries acquire assistive technologies after conducting testing with users with print disabilities. Several studies have agreed that access to information for visually impaired students is difficult because information is not available in appropriate formats. Furthermore, visually impaired students have access to only a few library websites. Copeland (2011) discovered that libraries contribute to the social construction of disability by failing to build websites that are accessible to the visually impaired. In addition, the attitude of library staff, as well as a lack of research, resources, and training facilities, have been identified as barriers to accessible services in libraries.

Din (2018) et al. discovered that menu marking is faster than TalkBack. It was also suggested that marking menus and motion gestures could help with smartphone interaction. According to Karabay (2016) visually impaired students face challenges with readers and encoders services due to the reader's inability to read clearly and smoothly. Furthermore, the study found that readers provided to visually impaired students are sometimes unable to correctly pronounce terms if they are from a different discipline.

2.4. Challenges faced by visual impaired students in accessing information

Visually impaired students had to make the available information useable, which was time-consuming (Majinge & Mutula, 2018). Seyama (2009) pointed out that blind students usually face difficulties in task accomplishment due to time constraints as they have to make information useable. The presumption that information technology is the solution to every problem, perhaps, is the major reason for the paucity of research on the information behavior of VIPs (Beverley et al., 2007; Williamson et al., 2001). A study conducted by Yemisi (2011) in Nigeria found that there was a challenge of providing equitable library and information services to the visually impaired. Yemisi (2011) Nisbet's study (2020) also recommended adopting assistive technologies to make printed information resources accessible to pupils who are blind or visually impaired. For users who are visually imprisoned, Xie et al. (2020) recommended including aid tools in the design of the digital library environment. Studies on the alleged phenomena among people with visually impairment were carried out in Pakistan. According to Zia and Fatima's (2011) study, University of Karachi students who are visually impaired have limited access to the information they require. Instead of books, many choose electronic journals or Braille content. Due to equipment and software limitations, a lack of technological knowhow, and a lack of assistance and resources, these pupils were unable to use digital library services. Ram (2012),

on the other hand, concentrated on the reading needs and interests of visually impaired people. Only a few contents were discovered to be usable by visually impaired people. Despite the fact that the library's printed materials are accessible, they are inaccessible to them due to their disability. Reading ability of visually impaired people can be improved if braille books, audio books, the internet, and computers are available. Awais and Ameen (2015) looked on the accessibility of information for people with various disabilities. They found that the primary sources assisting disabled people in obtaining the information they needed were their family and friends. According to Ali, Bashir, Fatima, and Babar (2016) findings, visually impaired students' information demands were primarily focused on academics, health, careers, employment, current events, politics, and finances. For their information needs, these individuals prioritized the library over the internet, classmates, and teachers. For informational purposes, these participants adore using JAWS and talking books. The least favoured materials among students who are blind or visually challenged are printed materials, Braille, zoom texts, and huge printing. Lack of supplies based on needs and a lack of technical knowledge seemed to be obstacles to meeting their information needs.

2.5. Enhancing access to information by the visually impaired students

Access to information is major problem for the visually impaired. Bhardwaj (2018) suggested that the guidelines provided by IFLA for libraries, governments, and other stakeholders provide a framework for developing library services for people who are visually impaired.

These guidelines are based on the development of library services to visually impaired people. Libraries should establish the mission of their library service for those who are print disabled. Library services to print-disabled persons should be established by legislation. The guidelines recommend that each country establish a national agency with the mandate to set standards and

define, develop, and coordinate a national strategy for library services for people who are print disabled. Suggested for policy implementation:

- **Adequate funding of state libraries**

Governments must fund state libraries so that they can fulfill their mandate of enlightening and empowering the citizenry through provision of essential information.

- **Policy review**

The public and academic libraries need to review their policies to reflect their commitment to library and information provision to the visually impaired. A formal, documented policy is important because it will serve as a guide in acquisition, budget allocation and staff training. It will equally help to define the relationship of the library with other agencies serving the visually impaired.

- **Networking**

No single school or library can adequately cater for the information needs of the visually impaired. Therefore, it is important that all the institutions serving the blind in Nigeria come together to form a national network. This will afford them the opportunity of sharing their resources and collections in interlibrary loan arrangement. Also, by forming a national network, they will be better positioned to attract international donors.

- **Training and Retraining of Librarians**

Training is necessary for optimum performance. Therefore, librarians should be trained on how to relate to visually impaired clients. Studies have shown visually impaired people use more of interpersonal medium when seeking information. It is therefore important that librarians be given

periodic training on how best to serve this category of users.

According to Fatima and Kumari (2017), a library must provide relevant sources and a collection of materials to meet the information needs of visually impaired people in order to improve information services to all users, whether they are regular or special users, such those who are blind. Offer students who are blind or visually handicapped specialized awareness training so they can use sophisticated information technology programs. Using the proper tools, convey freshly obtained information resources or any other type of information materials to the attention of the visually impaired students. Provide adequate computers with cutting-edge technology for people who are blind or visually handicapped to improve library services.

2.6. Theoretical framework

Theoretical framework is defined as a conceptual model that establishes a sense of structure that guides research, it provides a background that supports investigation and offers justification of the study on a specific research problem (Statistics Solutions, 2011). This study made use of Wilson's model of information. According to Wilson 1981 model, information seeking behavior develops as a result of a need that an information user perceives, to meet this need, the information user places demand on formal or informal information sources or services, and the outcome is whether or not they are successful in finding pertinent information. If successful a person uses the knowledge and, depending on how much of the perceived desire is satisfied. If not, they must restart their quest. Additionally, the model demonstrates how information seeking behavior can engage other people through information exchange and how knowledge that is deemed helpful can be shared with others in addition to being used by the original user (Wilson, 1981). The study employed this model because it underscores the elements of information behavior such as needs, sources, and services which will help to understand the information

behavior of visual impaired students. Similarly, Kumar and Tholkappian (2013) affirm that Wilson's model was crucial in understanding the information behavior of users, their needs and services, and ensuring that their needs are met or satisfied. As a result, the theory offered suitable guidelines for understanding information seeking behavior of visual impaired students.

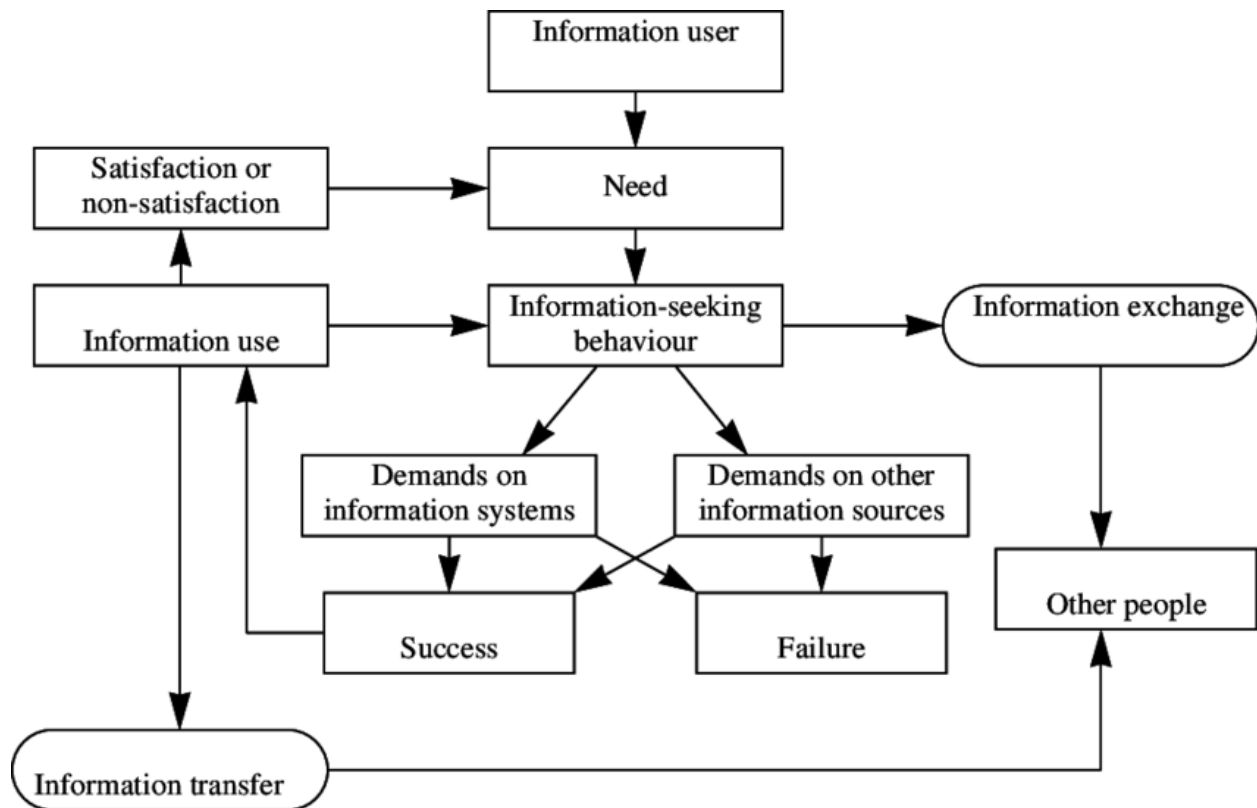


Table2. Wilson's model of information

2.7. Chapter summary

This chapter provided an analysis on literature conducted on the topic; the access of information to students with visual impairment. The analysis of the literature was therefore addressed according to the five research questions of the study, which helped in contextualizing and identifying gaps that this study intends to satisfy. Through the literature review, it comes to light

that some academic libraries, particularly in Africa are yet to understand the importance of visual impaired student and accessing information services in universities' libraries.

This chapter includes the theoretical framework. The study used the Wilson's model of information. The next chapter discusses the research methodology that was used for this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter describes the methodology employed to conduct this study. Research methodology refers to a systematic way employed to solve a research problem, it is also the procedure by which researchers go about describing, elaborating and predicting the phenomena under study (Rajasekar, Philominathan & Chinnathambi, 2006). This chapter is a detailed explanation of how the researcher collected the data, the methods and instruments used to collect the data, the population studied, how the population was sampled, and the procedures that were used in data collection and how the data was analyzed. Research ethical considerations that will protect the researcher and the participant were further explained in this chapter.

3.2. Research Design

The study adopted a case study research design, within a qualitative research approach. A case study is a description and analysis of an individual matter or case with the goal of identifying variables, structures, forms, and orders of interaction between the participants in the situation (theoretical purpose), or to assess work performance or practical purpose (Rebolj & Possibilities, 2017). According to Creswell (2009) qualitative approach is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, report detailed views of information, and conducts the study in a natural setting.

3.3. Data collection method

Data collection involves gathering of data using defined techniques in order to answer the pre-defined research questions of the study (Onyango, 2002). A data collection method is a method that a researcher used to collect relevant information or statistics for a study. To obtain results that can be generalized or used over a long period of time, the proper method should be used.

Interviews were used to gather the information as a data collection method. Interviews are an important data gathering technique involving verbal communication between the researcher and the subject (Fox, 2000). An interview is defined by Adhabi and Anozie (2017) as attempts to understand the world from the subject's point of view, to unfold the meaning of peoples' experiences, to uncover their lived world before scientific explanations. The best method for studying complex and sensitive topics is through an interview because it allows an investigator to gather in-depth information for probing and gives them the opportunity to supplement information from responses with non-verbal cues (Kumar, 2014). The researcher interviewed the librarians and students by making use of semi-structured interview guides.

3.4. Population

Population refers to the set or group of all the units on which the findings of the research are to be applied (Satishprakash, 2020). Furthermore Mutungi (2012) and Adler and Clark (2010) defined the population of study as the entire group of persons, elements or set of objects and events that the researcher is interested in studying. The population is very important in a research, because it is the group on which the study is based. Once the researcher has decided on the population the researcher has to distinguish between the target population and accessible population. The difference is that the target population is everyone or everything that falls within the population parameters, studied (Du Plooy Cilliers, Davis, & Bezuidenhout, 2014). The

population of this study was UNAM whereas the accessible population refers only to the section of the population that can actually be Library staff and the visually impaired students at UNAM, main campus.

3.5. Sampling

Bhardwaj (2009) defined sampling as a collection of individuals, things, or things collected from a large population for measurement in research. Sampling is done in order to obtain accurate data. Dhivyadeepa (2015) defined qualitative sampling as the process of choosing smaller individuals who will serve as reliable key informants and aid the researcher in understanding a particular phenomenon. Sample sizes for qualitative research are typically smaller and less representative than for quantitative research. The study applied purposive sampling technique to select the Librarians, and convenience sampling technique to select the students. According to Creswell (2012), purposeful sampling means that to learn or understand the essential phenomenon, a researcher selects individuals and sites intentionally. Convenience samplings refer to a sampling where the researcher selects participants because they are ready and available to be studied (Creswell, 2012). Three students were selected because of their availability. Three librarians were selected purposively because of their better understanding of the topic being studied. The disability coordinator of visual impairment students was selected because of knowledge in dealing with the students; a research librarian was selected because students in most cases make use of research on information for their studies. A reference resources librarian was also selected because of the referral information and students usually get referred.

3.5. Research Instruments

A research instrument, according to Kumar 2014, is a research tool that also serves as a way to gather data for a study. The study made use of two separate semi-structured interview guides to

collect data from the librarians and the students. According to Mason (2004), semi-structured interviews are characterized by their flexibility and fluid framework, which distinguishes them from structured interviews.

The semi-structured interview guides (See Appendix A and B), are divided into 2 sections. The questions were designed to gather information about the library staff at UNAM's main campus' acquaintance with library services; as well as gather information from the visually impaired students at UNAM main campus. The researcher used open-ended questions to let respondents express their views on the topic of the study.

3.6. Procedure

Punch (2005) defined procedures as steps requiring careful consideration, planning, anticipation, pilot tests (where necessary), and through preparation. According to Walter (2006), in order to accomplish a certain event, a series of related activities or events must occur. As a researcher, it is crucial to adhere to processes in order to manage projects and finish them on schedule. They significantly affect the more technical facets of the data quality.

The researcher got an introduction letter from the supervisor of which she made use to seek permission from the University Librarian to conduct the study. Interviewing librarians was permitted by the University Librarian (see Appendix D). The researcher made appointments to conduct interviews with the librarians and students. To collect data from the students, it took the researcher two weeks.

3.7. Data analysis

According to Jupp (2006), data analysis comprises examining the data, organizing it, dividing it into useable units, coding it, summarizing the data to determine its meaning, and then presenting

the results. The process of reviewing and summarizing the data gathered in order to reach a conclusion is known as data analysis. Data has to be analyzed in order to get the findings and knowledge the researcher was hoping to find.

Qualitative data analysis is the procedure for gathering, examining, and interpreting qualitative data, including user feedback and non-numerical, conceptual information(Kawulich, 2015). Content analysis method was used by the researcher. Content analysis is contents of a specific form of material that is detailed and examined systematically for the purpose of identifying patterns and themes (Leedy & Ormrod,2015). According to Kumar (2014) the researcher employed the content analysis method, identifying and developing the main themes from the responses, categorizing responses under different main themes by reading all of the interview records, and finally adding themes and answers. The lessons learned during the interview, meaning of data, recommendations of data for any improvement were highlighted as the last step in qualitative data analysis method (Cresswell, 2018).

3.8. Research Ethics

The majority of research ethics concerns fall into one of four categories: protection from harm, informed consent, right to privacy, and candor with peers in the field (Leedy & Omrod, 2015). Students participated voluntarily in the study and they signed a consent form (see Appedix C). Confidentiality means the researcher know who the participants are and codes of conducts were endured (Creswell, 2012).

3.9. Chapter summary

The purpose of this chapter was to present and discuss the study's research methods. The methodology and procedures used in this investigation were described in detail in this chapter. It

also highlighted why the method approach was chosen. This was done to ensure that the chapters in this study flowed smoothly. Discussions about data collection methods and targeted population were librarians and visual impairments students at UNAM, main campus. Data collection methods were interviews. Data collection instruments were semi-structured interview guides for the interviews. Content analysis was used to analyze qualitative data. Participants were recorded and it was successful and data is stored as audio that is stored on Google documents until transcriptions while the researcher maintains data management and security of data. The following chapter is on analysis and presentation of the study's research findings.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1. Introduction

This chapter presents data gathered from interviews with UNAM librarians and students. Data obtained from interviews was analyzed through content analysis, and presented in the form of descriptive narrative and some selected direct quotes from the participants.

The study had a sample of 3 librarians and 3 students. The librarians were purposively selected, because of the knowledge and experience they had in dealing with the virtual impaired students. The researcher managed to interview the 3 librarians and 3 students as a result accomplished 100% response rate. Therefore, this chapter presents the qualitative data which was collected from both the librarians and the students.

Data is presented under the following headings as drawn from the research questions and integrates qualitative data: information access services provided to students with visual impairments, mechanisms the library put in place to help visually impaired students, challenges that visual impaired students face in accessing information at University of Namibia library, what can be done to enhance access to information by the visually impaired students at the University of Namibia Library.

4.2 Demographic information of the Participants

4.2.1. Demographic data for librarians

The demographic data presents librarians' positions, number of years of in the positions and number of years in the library as presented in the figure below.

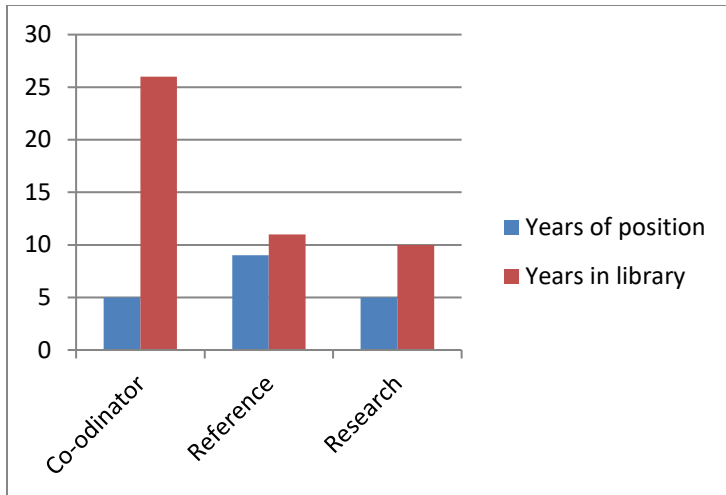


Table4.1. Librarian's demographic information

The above table shows the librarians with different number of working experience in the library, first librarian (L1) that participated had high number of 26 years, followed by the librarian with 11 years (L2) and the lowest with 10 years (L3).

4.2.2. Demographic data for students

The demographic data presents year of study, programme and number of years at UNAM as presented in figures below.

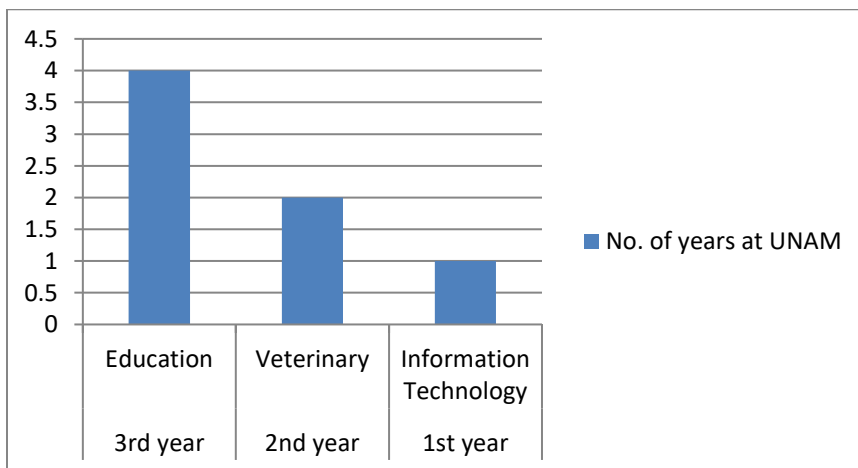


Table4.2. Student's demographic information

Table 4.2 above shows the students (S1) in highest year level of study (3rd year) that is studying Education, 2nd year level participant (S2) that is studying Veterinary, and 1st year level of study participant (S3) that is pursuing studies in Information Technology.

Data is presented under the following headings as drawn from the research questions and integrates qualitative data: Information access services provided to students with visual impairments, challenges visual impaired students face in accessing information at University of Namibia library, and enhancement of accessing information by visually impaired students at the University of Namibia Library.

4.3. Services to access information provided to students with visual impairments

4.3.1. The types of services

The librarians were asked to state the services provided to students with visual impairments to access information. All librarians replied that students were provided with information services from the University library, although they were not sufficient. Furthermore, all basic services were provided including literature searches support on writing assignment, training on accessing information and how to access it.

For instance L1 stated;

“The library has assistive technology including software and hardware, specialized room specifically for the virtual impaired student needs. Software such as JAWs for speech; it say the words when the students are typing, magic software for speech enhancement it also says out the typed words. Specialized keyboard which are in large

keys and it enables students that are not totally blind to see as it makes the words bigger. Books in electronic formats with electronic publication, it has capabilities of talking and students listen to it instead of reading. Though there are information services provided, they are not enough''.

The librarian's responses match the students' responses when they were asked the same question by the researcher. Training, special keyboard, printing of braille papers, quite computers, books with sounds, special room.

S3 expressed:

''The library provides us with all the services we need to make use, the librarians guides us on how to make use of the keyboard and computers and they have speakers that tells us on what to do and what have you typed in the computer and we search for articles and other educational journals from the computers''.

4.3.2. The ease of use of the services provided

The librarians and students were asked whether the services provided to students were easier to use and satisfy the students' needs; the respondents' responses were different as follows; as librarians responds that different students were affected differently, L1 and L2 stated the following:

L1: ''Yes, they are user friendly, all though we don't have enough materials, the little that is available it is user friendly, because the library is providing information literacy programme for the visually impaired students in orderto familiarize students with the equipment that provide access to information''.

L2 said

‘This maybe a Yes and a No, especially when there is a section that is just dedicated to them which might make the students feel isolated and stigmatized. Designated section is at the second floor, making it difficult for the students not to get there mostly when the elevator is out of order. The access to the library building is hidden, because they make use of the loading bay where they have to ring the bell and wait for the door to be opened. They think they are being stigmatized because they cannot enter the library as other students. The university has disability unit where there are computers or infrastructures where most of their test are covered to braille format’.

Students’ responses to whether the services satisfied their needs; many of the despondence mentioned that the services satisfied their needs thus why they continued coming on campus to study and to learn. For instance S3 expressed: ‘‘Yes, they satisfy me, because I am still coming on campus to learn and study from them, I could had stop studying’’.

4.4. Visually impaired students’ rights to access information services

To provide response to this question, the librarians were asked if they perhaps thought the students’ rights were respected in accessing information services.

L1 narrated;

‘‘Yes, the visual impaired students’ rights to accesses information are 100 percent respected, because the library is going out of its ways to provide information in audio format such as the JAWs, Electronic Public software, having books in electronic format to make sure that students hear if they don’t see’’.

L2 responded;

“Yes; perhaps the perspective might be failing that the services are at the second floor and it is the only place for the visually impaired students in the library and they might feel discriminated. Students are valued; as we make sure they access the services and information resources that satisfy their needs. During Covid-19 it was difficult for them to get assisted unless they send a request to get assisted perhaps we because we don’t have the database for the students beforehand”’.

Additionally L3 responded saying;

“Yes, in fact they are more special being in a way that if you find them you would want to help them, the virtual impaired students are our concern we make sure they are well taken care of in terms of accessing information services”’.

4.5. Mechanisms the University Library put in place to help visually impaired students access information

4.5.1. The types of mechanisms

The librarians and students were asked the mechanisms in place to provide access to information to the virtually impaired students. Both librarians and students mentioned the same types of mechanisms such as; a unit with capable devices, study buddies, information in sound speak, elevator and basement door to access the library, librarians and students expressed their feelings differently as follow:

Librarians:

L1 said:

‘All the materials provided by the library, should have the capability of serving virtually impairment students, as the world is moving away from print, the University library is purchasing books and journals in electronic format for students to access them electronically. There are special computers located at special room where there is no disturbance and there are books in print format and some materials are in braille in the library’.

L2 responded; “Unit with compatible devices to students with virtually impairment, initiatives for the students to access the library building through a door easier to use working hand in hand with disability unit”

L3 responded; “the disability unit has put up mechanism of the virtually impaired to have study buddies. A room all the information needed at the disability unity”

S1 said “Information is provided in sounds that speak whenever pressing on the computers and keyboards”.

S2 responded;

To go to the library is sometimes hard, because the elevator in the library doesn't work properly sometimes, as for me I see but not really properly there was a day I was stuck in the library as I was waiting on the elevator to come but it was not coming. The librarians should make sure the elevator is working every day.

S3 responded, “Yes, they are useful to me, and I like how we have study buddies to help us walking around campus”.

4.5.2. Adequacy and effectiveness of the mechanisms

The researcher asked the librarian how adequate and effective the mechanisms were. Librarian 1 response was as follow; ‘Not adequate because they are not enough in comparison with the number of students registered; however, the library has sufficient effective materials necessary to help students access them’. L2 response to the question was; ‘some mechanisms are effective and some are not because there is an issue of entering the build of which their section is at the second floor’. L3 said; ‘the mechanisms are very helpful and the students don’t feel left out’.

4.6. Challenges the visually impaired students face in accessing information

Librarians and students were asked the challenges the students facing in accessing information and their responses corresponded.

For instance L2 narrated:

‘Assistive technology because of high cost associated with, although there might be few students who could afford personalized assistive technology that they can use when off campus, and there are some students that cannot afford such and they have to be on campus if they have to do their assignment or to study and relay on. Transferring textbooks into braille is costly and it requires high budget’.

For instance S2 expressed:

‘I have a challenge to enter the library through the elevator, I once got stuck in it lucky enough I was with my friend, I think librarians should really move the special room at the disability unit’.

S3 responded:

‘When my computer got broken, I could not study properly because it had my studying materials, I could search on internet with it. Now I study the hard way; I come on campus and study until I am done with my exams’.

Students further explained that they encountered challenges of accessing the special room in the library because of the elevator that failed to work.

4.7. Suggestions to enhance access to information by the visually impaired students at the University of Namibia Library

The research lastly asked the librarians and students of their opinions on what could be done to enhance access to information by the visually impaired students. L1 expressed;

‘Mind change of Unam management to visually impaired students; the students need to have equal access to information as other students. Budget allocation; enough budget should be allocated for the visually impaired students to enable the library support the students fully by buying necessary gadgets that will help students have equal access to information as other students. Training of staffs; library staffs need to be trained on how to deal with students with disabilities because in the absence of this training all though all the assistive technology is available and staffs are not trained to help students then it would not help anything. Attitude change among the librarians towards the students with disability and visually impaired; the attitude of willingness to help and acceptance of these students as University members of community and not to burden to certain students that can help a lot for the students to succeed in their studies’.

L2 added;

‘‘There should be a collaboration between Unam and Ministry of Social Welfare, for the ministry to cater for the visually impaired students ’educational needs in terms of devices and converting of text into braille format and other costs. There is a need to redesign the library building so that it will be compatible to the students needs’’.’’

L3 responded, ‘‘the gadgets used by students need special applications to be installed in and they help students navigate on the websites, the University library should help the students install these application in their laptops’’

S1 responded, ‘‘The UNAM management should buy more materials for us that because currently they are not enough. They should also provide to other campuses of which most of us re-locate for continuing with our courses’’. S2 said, ‘‘The University must install in new elevators that has speakers, to help us on where it is taking us. And the University should buy equipment’s that put all information in audio, audios are easier to make use of ’’. S3 responded, ‘‘The University should meet students in at least in installing the software in the student’s computers so that we can also make use of our sibling’s computers when ours get damaged’’.

4.10. Summary

The chapter analyzed and presented qualitative data that was gathered in this study. The qualitative data from the interviews was presented manually through content analysis and through descriptive narrative, and with directed quotations from the respondents and sometimes presented by means of figures from Microsoft Excel. The study revealed that the majority of the participants expressed that the library provide information services to visual impaired students although they are not enough for all the students enrolled in the University. Further it was exposed that; trainings, JAWS, braille papers, speaking keyboards, sound books, study buddies

and elevator are services offered to at the University Library. Therefore it showed that the students have access to information. The next chapter discusses and summarises the findings, and provides conclusions and recommendations.

CHAPTER FIVE

DISCUSSIONS OF FINDINGS, SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter discusses and summarises findings, gives conclusions and recommendations.

5.2. Discussion of findings

The purpose of the discussion of research findings is to explain its' meaning to the reader and it should therefore be written to ensure that the discussion based on the study's data is understood by the end reader (Hess, 2004). According to Leedy and Ormrod (2010) the research findings are interpreted in light of the literature reviewed in Chapter 2.

As outlined in chapter one, the purpose of this study was to investigate access to information by students with visual impairment at University of Namibia Library, main campus. The discussion is done under the following subjects drawn from each research questions: What information access services are provided to students with visual impairments? What mechanisms does the library put in place to help visually impaired students? What are the challenges that visual impaired students face in accessing information at University of Namibia library? What can be done to enhance access to information by the visually impaired students at the University of Namibia library? The responses under these research questions were gathered among the librarian and the visually impaired students at the University of Namibia, main campus.

5.2. The types of services

One of the research questions was to find out the types services provided to students with visual impairments. In this regard it was evident in this study that assistive technology including JAWS

for speech and hardware, magic software, specialized room, books in electronic formats with electronic publication, training on using the electronics, special keyboard, printing of braille papers, quite computers were the types of services provided to students. Similarly, Rayini (2001) when studied Library and Information Services to the visually impaired persons at the University of Nebraska in Ghana, found that braille books, talking books, electronic texts, voice recognition software were the services provided to students.

5.3. The ease of use of the services provided

The study revealed that different students were affected differently because the findings of this study states that to some services provided were user friendly and some were not friendly, although the available materials are not enough, the library is providing information literacy program for the visually impaired students in order to familiarize students with the equipment that provide access to information. On the other hand findings had finds that the services were not user friendly, especially when there is a section that is just dedicated to visually impaired students which makes the students feel isolated and stigmatized. Designated section is at the second floor, making it difficult for the students not to get there mostly when the elevator is out of order. The access to the library building is hidden, because they make use of the loading bay where they have to ring the bell and wait for the door to be opened. They think they are being stigmatized because they cannot enter the library as other students. On the other hand the findings shows that the services provided to students satisfy their needs. The huge evidence is that students continue coming on campus to study and to learn making use of the services.

Similarly, in the study conducted by Osman and Kwafoa (2020) on Library services for the visually impaired: case study of academic libraries in Ghana found services provided to students were not easily accessed due to lack technical services or support for the visually impaired.

This clearly calls massive investments in the redesigning of library space entrances in order to make it easy for students access to information services.

5.4. Visually impaired students' rights to access information services

This study's findings whether the students' rights are respected in accessing information services found that all students with visually impairments' rights are 100 percent respected just as other fully aid students. That's why the University library is going out of its ways to improve on the service provision by providing information in audio format such as the JAWs, Electronic Public software, having books in electronic format to make sure that students hear if they don't see. Although on the other hand the situation of service provision still to improve some students felt their rights were not well respected on accessing of information service reason being that if there is a dilemma for the students not to reach campus the students will not have access to services provided by the library, this is hence a satisfactory.

5.5. The types of mechanisms

The study shows the mechanisms provided to visually impaired students, such as; unit with capable devices, study buddies, information in sound speak, elevator and basement door to access the library. However the study found that these mechanisms should have the capability of serving virtually impairment students, as the world is moving away from print, the University library is purchasing books and journals in electronic format for students to access them electronically. Furthermore the University library works together with the disability unit to provide necessity mechanisms to access to services by students.

5.6. Adequacy and effectiveness of the mechanisms

This section discusses findings on adequacy and effectiveness of the mechanisms provided to students by the University library. The librarians indicated that the mechanisms provided to students are inadequate. Students' responses match the librarians' responses. Similarly to a study conducted by Osman and Kwafoa (2020) on library services for the visually impaired: case study of academic Libraries in Ghana found that respondents from University of Education, Winneba (UEW) evaluated the kind of library services the university library provided for the visually impaired students as inadequate.

5.7. Challenges the visually impaired students face in accessing information

This section discusses challenges faced by the visually impaired students. Librarians and students were asked the challenges the students facing in accessing information and their responses corresponds as the findings showed. The materials that students have access to are not sufficient and they need to be in correct format in order to be effective to the virtually impaired students. There is a challenge on necessary resources in terms of funds to acquire the assistive technologies that will enable students have access to information within the library such as enough information materials in braille format, equipment that can read and text, equipment's that can converts from text to braille. Conversion of information available in print to audio format for students to enable accesses them. Findings indicate that these challenges affect students' studies. Similarly, to a study conducted by Osman and Kwafoa (2020) found that four challenges were mentioned by the librarians: finance, infrastructure, resource persons and assistive technologies. They cited finance as the greatest challenge facing the libraries in providing library services to the visually impaired students. Another study conducted by Bhardwaj (2018) on Mechanism for Visually Impaired Students in Higher Educational

Institutions, found that it had challenges on facilities for visually impaired students in higher educational institutions are very basic and it is difficult for visually impaired students to conduct study and research with existing ICT infrastructure. Higher educational institutions in Delhi do not have the infrastructure suited to the needs of visually impaired students to facilitate efficient services. University libraries in Delhi are facing difficulties due to lack of funds and trained staff to deliver services to visually impaired students (Bhardwaj, 2018).

5.8. Suggestions to enhance access to information by the visually impaired students at the University of Namibia Library

The research lastly asked the librarians and students of their opinion, on what should be done to enhance access information by students.

5.8.1. Librarians suggestions

UNAM management to provide all the necessity services students need to have equal access to information as other students. Budget allocation for the visually impaired students, training of staffs, attitude changes among the librarians towards the students with disability and visually impaired students, collaboration between UNAM and Ministry of Social Welfare, for the ministry to cater for the visually impaired students' educational needs in terms of devices and converting of text into braille format and other costs. There is a need to redesign the library building so that it will be compatible to the student.

5.8.2. Suggestion from students

The UNAM management needs to purchase enough materials and UNAM should also provide to other campuses of which most of us re-locate for continuing with our courses. University must install in new elevators that has speakers, to help us on where it is taking us. And the University

should buy equipment's that put all information in audio; audios are easier to be used. The University should meet students in installing the software in the student's computers so that we can also make use of our sibling's computers when ours get damaged.

Similarly to a study conducted by Rayini (2001) found suggestions guidelines for improving library and information services to the visually impaired at the university of Nebraska- Ghana: Meeting user needs; Libraries must meet the needs of this diverse community of print-disabled persons and provide services. Work with blindness agencies; Agencies that provide or advocate for service to print-disabled people often conduct or assemble information on consumer demographics, needs, trends and behavior. They are likely to be on top of the latest vision aids and technologies and are already providing training to clients or assisting in troubleshooting adaptive devices.

Collection development; A library's collection is the heart of its service and a reflection of its mission. Building a collection to meet the needs of a community requires consideration of its demographic, economic, cultural and racial diversity. Access to service and collections; Libraries for the blind need to develop strong policies and procedures to ensure that clients can obtain information and leisure reading materials in the formats of their choice and choose the most efficient methods of delivery. Such policies should clearly set out the conditions of service for when and how borrowed materials are to be returned to the library. Reader training and awareness; Training users in the use of new services and in new technologies that support these services is essential. Libraries should make users aware of new services or changes to existing services (Rayini, 2001).

5.3. Summary of findings

The previous section presented key findings of this study. The findings are summarized within the following themes from the research questions: What information access services are provided to students with visual impairments? What mechanisms does the library put in place to help visually impaired students? What are the challenges that visual impaired students face in accessing information at University of Namibia library? What can be done to enhance access to information by the visually impaired students at the University of Namibia library?

5.3.1. The types of services

The study found positive perceptions on accessing information services by visual impaired students; UNAM library offers access to services. Software such as JAWS and magic, and hardware, specialized room, specialized keyboard books in electronic formats, training on using the electronics, printing of braille papers, quite computers, study buddies, and all these services are used by most of the student's respondents. It is interesting to discover that there were different services being provided to visually impaired students by the university library to enables them success with their studies and these information services were provided based on their needs.

5.3.2. The ease of use of the services provided

The study showed that students were affected differently; to some students services provided were user friendly and to other students were not user friendly especially the designated section is at the second floor, making it difficult for the students not to get there mostly when the elevator is out of order. The access to the library building is hidden, because they make use of the loading bay where they have to ring the bell and wait for the door to be opened. They think they are being stigmatized because they cannot enter the library as other students. These findings

emphasized that the services provided were user and as for the reason why the students continued coming to make use of the services. The provision of the services seem satisfactory to students, which is better and help them with their studies

5.3.3. Visually impaired students' rights to access information services

Students' rights to accessing information were respected. The findings showed that the University library is improving the service provision by providing information in audio format such as the JAWs, Electronic Public software, having books in electronic format . the study further revealed that the situation of service provision still to improve because some students felt their rights were not respected on accessing of information service reason being that if there is a dilemma for the students not to reach campus the students will not have access to services provided by the library, this is hence a satisfactory.

5.3.4. The types of mechanisms

The study further revealed that unit with capable devices, study buddies, information in sound speak, and elevator and basement door to access the library were the mechanisms provided to students. Additionally the study findings found that all mechanisms provided to students should be able to serve them. To conclude the University library works together with the disability unit to provide necessity access to services by students.

5.3.5. Adequacy and effectiveness of the mechanisms

The study unveiled a negative provision of adequacy and mechanisms. The provision of the mechanisms shows that the University library needs to improve on this issue.

5.3.6. Challenges the visually impaired students face in accessing information

The materials that students had access to were not sufficient and they were not in the correct format. There was a challenge of funds to acquire the assistive technologies to enable students have access to information within the library, information materials in braille format, equipment that can read and text, equipment's that can converts from text to braille. Conversion of information available in print to audio format. The study's findings indicate that these challenges affected students' studies.

5.3.7. Suggestions to enhance access to information by the visually impaired students at the University of Namibia Library

Suggestions to enhance access to information included UNAM management to provide all the necessity services students need. Budget allocation for the visually impaired students, training of staffs, attitude changes among the librarians towards the students with disability and visually impaired students, collaboration between UNAM and Ministry of Social Welfare, for the ministry to cater for the visually impaired students 'educational needs, Redesign the library building, provide necessity services to other campuses. University must install in new elevators that has speakers, to update students. And the University should install the necessary software in the student's computers.

5.4. Conclusions

This section provides conclusions of the findings as guided by the research questions of the study as following: What information access services are provided to students with visual impairments? What mechanisms does the library put in place to help visually impaired students? What are the challenges that visual impaired students face in accessing information at University of Namibia library

5.4.1. What are the challenges that visual impaired students face in accessing information at University of Namibia library?

The study showed that students were affected in different ways. To some students services provided were user friendly while to others students, they were not user friendly. These findings emphasized the services seem satisfactory to students.

5.4.2. What are the challenges that visual impaired students face in accessing information at University of Namibia library?

The challenges were: insufficient materials in wrong format, funds to acquire the assistive technologies; and transformation of information available in print to audio format. These challenges affected the students' studies.

5.5 Recommendations

This section presents the recommendations of the study as follows:

- The Library should provide enough services needed by the visual impaired students.
- University should make all service provided user friendly to all students.
- Mechanisms should be put in place by the library management and disability unit should be improved to be flexible to all students.

- Enough materials need to be provided; in correct format increasing usability and transformation of all information available in in print to audio.
- Library management needs to train all staffs on how to deal with disabled persons.
- Enough funds need to be allocated to purchase the necessary equipment's needed for the provision of visual impairment students' services.
- Lastly the researcher recommends the redesign of the library building; the section of the visually impaired students to be on ground floor.

5.6. Areas for further research

Areas for further research should include but not limited to the following:

- The provision of information services to other UNAM campuses was emphasized incapable; hence there is a need to investigate on how students from other campuses access information.

5.7. Final conclusion

The findings disclosed that students were not thoroughly provided with all essential services. There was a lack of funds to acquire the assistive technologies, training of staffs, attitude changes among the librarians towards the students with disability and visually impaired students were some of the challenges highlighted in the study. Moreover, budget allocation need to be drawn to purchase the necessary equipment's needed for the provision of visual impairment students' services, and lastly researcher recommends the redesign of the library building.

References

APPENDIX A: INTERVIEW GUIDE FOR LIBRARIANS

Interview guide for the librarians to investigate the access to information by students with visual impairment at the University of Namibia Library, main campus.

Demographic Information

Position of respondent

No. of years in the position

No of years in the Library

Services to access information provided to students with visual impairments

1. What services are provided to students with visual impairments to access information?
2. The services provided, are they user friendly to these students?
3. In your opinion, do you think visually impaired students' rights to access information services are well respected? Motivate your answer?

Mechanisms the library put in place to help visually impaired students

4. What mechanisms does the University library put in place to help visually impaired students access information?
5. How adequate and effective are these mechanisms?

Challenges visual impaired students face in accessing information at University of Namibia library

6. In the time that you have been a librarian, what are the challenges that visual impaired students face in accessing information at University of Namibia library?
7. How do these challenges affect the visual impaired students?

Enhancement of accessing information by the visually impaired students at the University of Namibia library

8. In your opinion what can be done to enhance access to information by the visually impaired students at the University of Namibia Library?

Thank you for your valuable time

APPENDIX B: INTERVIEW GUIDE FOR STUDENTS

Interview guides for students to investigate the access to information by students with visual impairment at the University of Namibia Library, main campus.

Demographic information

Year of study

Programme

No. of years at UNAM

Information access services provided to students with visual impairments

1. What services does the Library have to enable you to access information?
2. The information services available in the library for use, do they satisfy your need?
3. What mechanisms are put in place by the Library for you to access information services?
How useful are they?

Challenges visual impaired students face in accessing information at University of Namibia Library.

4. What challenges do you face in accessing information services?

Enhancement of accessing information by visually impaired students at the University of Namibia library.

5. What can the Library do to enhance your access to information?

Thank you for your valuable time

APPENDIX C: INFORMED CONSENT FORM

Title of Research Project: An Investigation of Access to Information by Students with visual Impairment at University of Namibia Library, Main Campus

Researcher: Febbe Shilongo

201613520

+264818161672

shilongofebbe@gmail.com

Supervisor: Prof. C. T. Nengomasha

University of Namibia, Department of Information and Communication Studies

Tel: 061 206 3641

cnengomasha@unam.na

Information

This research aims to investigate access to information by students with visual impairment at University of Namibia Library, main campus. All the informal gathered as part of this study will be kept confidential. No name will be published in the write up of the findings and confidentiality and anonymity will be adhered to at all times. Your records will be kept confidential and will not be released without your consent.

This study is important as it will benefit the University in terms of accessing to information by the visual impairments students. It may identify the strengths, weaknesses and come up with recommendations on how to properly access information by visual impairments. For further queries and clarifications do not hesitate to contact me or my supervisor. Contact details are provided above.

Participation is voluntary, and you may choose not to participate or withdraw from participation at any time. I however appeal to you to help in the success of this research through your participation.

If you voluntarily agree to participate in this research, kindly indicate your consent by signing below.

Do you agree to be digitally recorded? YES NO

Signature

Date

APPENDIX D: INTRODUCTORY REQUEST PERMISSION TO CONDUCT RESEARCH

University of Namibia, Private Bag 13301, Windhoek, Namibia
342 Mandume Ndemufuro Avenue, Pionierpark
☎ +264 61 236 3111; URL : <http://www.unam.edu.na>



Department of Information and
Communication Studies

3 August 2022

To Whom It May Concern

Re: Request for Permission to Conduct Research

We wish to introduce to you Ms Febbe Shilongo, a fourth-year student conducting research in partial fulfilment of the B.A. in Library and Information Science (Hons). Her research project is titled "An investigation of access to information by students with visual impairment at the University of Namibia Library, main campus". Please find attached the research proposal.

We are requesting your assistance by granting the student permission to conduct the study in your Library. We rely on the support of our stakeholders for the success of our programmes.

Her email address is shilongofebbe@gmail.com.

Thank you in advance for your support.

Yours Sincerely

A handwritten signature in black ink, appearing to read "C. Nengomasha", written in a cursive style.

Prof C. T. Nengomasha

Supervisor, Department of Information and Communication Studies

Cell: 0812787617; Office: 2063641; email: cnengomasha@unam.na