

**INVESTIGATING ACCESS TO INFORMATION BY THE UNIVERSITY OF NAMIBIA  
(UNAM) STUDENTS DURING THE COVID 19 PANDEMIC LOCKDOWNS**

**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS IN LIBRARY  
AND INFORMATION SCIENCE (HONOURS) TO THE UNIVERSITY OF NAMIBIA,  
FACULTY OF EDUCATION AND HUMAN SCIENCES, DEPARTMENT OF  
SOCIAL SCIENCES**

**BY**

**CLARA NANGULA MUFUNGULWA**

**201708950**

**2022**

**SUPERVISOR: PROF. C. T. NENGOMASHA**

## **ABSTRACT**

The first coronavirus (COVID-19) case to be recorded in Namibia came in February 2020. Libraries had to be closed due to the COVID-19 outbreak. In order to address the information demands of library users during the COVID-19 pandemic and lockout of the university library, this study examined the information access of students at the University of Namibia. The main objective of the study was To find out how the UNAM library provided access to information resource to students during the COVID 19 lockdowns; To investigate the type of information materials and sources that UNAM library provided to the students during the COVID 19 lockdowns; To determine the media and tools that the library used to provide information to students during the COVID 19 lockdowns; To identify the challenges faced in the provision and access to information by the UNAM Library and students during the COVID 19 lockdowns; and To suggest solutions on the challenges face in the provision and access to information by the UNAM Library and students during the COVID 19 lockdowns. The population of the study was UNAM Library staff and information science undergraduate students. The study adopted a case study research design. A sample population of 36 students and 4 staff from the University Library using stratified sampling technique and convenience sampling techniques took part in the study. The data collection methods were interviews and surveys. The data collection instruments were questionnaires and semi-structured interview guides. Data was analyzed for descriptive statistics using Statistical Package for the Social Sciences (SPSS) technique for quantitative data and Thematic content analysis for qualitative data. The results demonstrate that the Library informed the students about personal hygiene (hand washing, cleanliness, and the use of hand sanitizers) and educated the public about COVID-19 through posters and leaflets. The results also show that the Library offered data and e-resource links to aid students' continued research. Moreover, it was

revealed that the challenges the UNAM Library faced were lack of coordination, and none subscription for data for librarians to work from home. The researcher recommends that the UNAM Library needs to revise its current procedures for responding to patrons' informational demands during emergencies. The management of the Library should put together a team to develop a crisis management plan that would keep patrons' services running smoothly in the event of a pandemic. The Library's ICT units should be developed with competent staff, sufficient internet connections, and amenities that will improve the distribution of information to patrons in partnership with university management. The adoption of sustainable information technology tools, including as blogs, repositories, and professional networks like LinkedIn, ResearchGate, and Academia.edu for the delivery of online material, should be ensured by the Library's ICT divisions. The management of the Library should give enough data subscriptions for the librarians to improve the availability of information to customers via mobile phones at all times.

## Contents

ABSTRACT .....	i
LIST OF FIGURES .....	viii
ACKNOWLEDGEMENTS .....	ix
DEDICATION .....	x
DECLARATION .....	xi
LIST OF ABBREVIATIONS AND ACRONYMS .....	xii
CHAPTER 1.....	1
INTRODUCTION.....	1
1.1 Introduction .....	1
1.2 Orientation of the study .....	1
1.3 Statement of the Problem .....	3
1.4 Objectives of the study .....	4
1.5 Significance of the Study.....	5
1.6 Limitations of to the Study .....	5
1.7 Delimitations of the Study.....	6
1.8 Research Methodology .....	6
1.9 Definition of key terms.....	6
1.10 Outline of the report .....	8
1.11 Chapter Summary .....	9
CHAPTER 2 .....	10
LITERATURE REVIEW .....	10
2.1 Introduction .....	10
2.2. Libraries’ provision of access to information resource to students during the COVID 19 lockdowns.....	11
2.3 The type of information materials and sources that libraries provided to the students during the COVID 19 lockdowns.....	12
2.4 The media and tools that the libraries used to provide information to students during the COVID 19 lockdowns .....	13
2.5 The challenges faced in the provision and access to information by the Library and students during the COVID 19 lockdowns.....	14
2.6 Solutions to the challenges faced in the provision and access to information by the Library and students during the COVID 19 lockdowns.....	14
2.6 Theoretical framework .....	15

2.7 Chapter Summary .....	16
CHAPTER 3 .....	17
RESEARCH METHODOLOGY .....	17
3.1 Introduction .....	17
3.2 Research Design .....	17
3.3 Population .....	19
3.4 Sample and sampling .....	19
3.5 Data Collection Methods .....	20
3.6 Instruments .....	23
3.6.1 Questionnaire .....	23
3.6.2 Semi-Structured Interview Guide .....	24
3.7 Reliability and validity .....	24
3.8 Procedure .....	26
3.9 Data Analysis .....	27
3.10 Research Ethics .....	28
3.11 Chapter Summary .....	29
CHAPTER 4 .....	30
DATA ANALYSIS AND PRESENTATION .....	30
4.1 Introduction .....	30
4.2 The Response Rate .....	30
4.3 Demographic Information .....	31
4.3.1 Age .....	31
Figure 4.1: Age of respondents .....	31
4.3.2 Sex .....	32
Table 4.1: Sex of respondents .....	32
Table 4.2 Qualification and year of study .....	32
Findings .....	33
4.4 How the Library provided information to students during the COVID19 lockdowns ....	33
Table 4.2 Provision of information to patrons during the COVID-19 pandemic .....	33
4.5 The types of information materials and sources that libraries provided to their patrons during the COVID-19 pandemic .....	35
Table 4.3 To ascertain the types of information materials and sources that libraries provided to their patrons during the COVID-19 pandemic .....	36

4.6 To determine the media/tools that the library used to provide information to students during the COVID-19 pandemic. ....	37
Table 4.4 To determine the media/tools that the library used to provide information to students during the COVID-19 pandemic .....	38
4.7 To identify the challenges facing the provision of information to students during the COVID-19 pandemic.....	40
Table 4.5 Challenges facing the provision of information during the COVID19 pandemic lockdowns .....	40
4.8 Chapter Summary .....	42
CHAPTER 5 .....	44
DISCUSSION OF FINDINGS, SUMMARY OF FINDINGS, CONCLUSIONS ..... AND RECOMMENDATIONS	44
5.1 Introduction .....	44
5.2 Discussion of findings.....	45
5.2.1 How the Library provided information to students during the COVID19 lockdowns. ....	45
5.2.2 The types of information materials and sources that libraries provided to their patrons during the COVID-19 pandemic .....	45
5.2.3 The media/tools that the library used to provide information to students during the COVID-19 pandemic.....	46
5.2.4 Challenges facing the provision of information during the COVID19 pandemic lockdowns.....	47
5.3 Summary of findings.....	49
5.3.1 How the Library provided information to students during the COVID19 lockdowns. ....	49
5.3.2 The types of information materials and sources that libraries provided to their patrons during the COVID-19 pandemic .....	49
5.3.3 The media/tools that the library used to provide information to students during the COVID-19 pandemic.....	50
5.3.4. Challenges facing the provision of information during the COVID19 pandemic lockdowns.....	50
5.7 Conclusions .....	50
5.7.1 To find out how the UNAM library provided access to information resource to students during the COVID 19 lockdowns	50
5.7.2 To investigate the type of information materials and sources that UNAM library provided to the students during the COVID 19 lockdowns	51

5.7.3 To determine the media and tools that the library used to provide information to	students	
during the COVID 19 lockdowns		51
5.7.4 To identify the challenges faced in the provision and access to information by the	UNAM	
Library and students during the COVID 19 lockdowns		51
5.8 Recommendations .....		52
5.9 Areas for further research.....		52
5.10 Final Conclusion .....		53
REFERENCES .....		54
APPENDIX A: INFORMED CONSENT FORM .....		59
APPENDIX B: QUESTIONNAIRE FOR THE STUDENTS .....		61
APPENDIX C: INTERVIEW GUIDE FOR LIBRARIANS .....		67

## **LIST OF TABLES**

TABLE 4.1: SEX OF RESPONDENTS.....	32
TABLE 4.2: QUALIFICATION AND YEAR OF STUDY.....	32
TABLE 4.2: TO FIND OUT IF LIBRARY PROVIDED INFORMATION.....	33
TABLE 4.3: TYPES OF INFORMATION MATERIALS AND SOURCES.....	36
TABLE 4.4: MEDIA/TOOLS.....	38
TABLE 4.5: CHALLENGES.....	40



**LIST OF FIGURES**

FIGURE 4.3.1: AGE OF RESPONDENTS.....31

## **ACKNOWLEDGEMENTS**

I would like to give thanks to God Almighty for carrying me this far, and for giving me the strength to complete this study. My mother, who has been my biggest cheerleader and source of strength during this process. To my supervisor Prof Nengomasha for her guidance.

## **DEDICATION**

This study is dedicated to my mother, Jennifer Nando Tatalife. Thank you, mummy, for pushing me when I could no longer push myself. To my two sister, Ronnah and Daphine, you give me the strength to push through, thank you. To my father Harrison Mufungulwa, thank you for your guidance and to my late grandmother Easter Thughi Tatalife, thank you for your prayers.

## DECLARATION

I, Clara Nangula Mufungulwa, hereby declare that this study is my own work and is a true reflection of my research and that this work or any part thereof has not been submitted for a degree at any other institution. No part of this research report may be reproduced, stored in any retrieval system, or transmitted in any form, or by means (e.g. electronic, mechanical, photocopying, recording or otherwise) without the prior permission of the author, or The University of Namibia in that behalf. I, Clara Nangula Mufungulwa, grant The University of Namibia the right to reproduce this research report in whole or in part, in any manner or format, which The University of Namibia may deem fit.

CLARA NANGULA MUFUNGULWA

CM

27 NOVEMBER 2022

Name of Student

Signature

Date

## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>COVID19</b>	Corona Virus 2019
<b>FAQs</b>	Frequently Asked Questions
<b>IA</b>	Information Access
<b>ICT</b>	Information Communication Technology
<b>IE</b>	Inclusive Education
<b>OPAC</b>	Online Public Access Catalogues
<b>SDI</b>	Selective Dissemination of Information
<b>SPPSS</b>	Statistical Package for Social Sciences
<b>UNAM</b>	University of Namibia
<b>UREC</b>	University of Namibia Research Ethics Committee

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction**

This chapter introduces the foundation for the study, by briefly highlighting the main topics proposed to be discussed throughout the study. The chapter introduces the research and provide an introduction to the study. A brief background of how the UNAM Library provided information access to students during the COVID19 Lockdowns was discussed. The statement of the problem identifies the main issues of the study. The next aspect explains the objectives of the study, detailing the purpose behind the research and what it aimed to investigate. The significance of the study follows, highlighting the importance of the study concerning library patrons, academic libraries as well as policymakers. Thereafter the limitation and delimitations of the study was explained. A summary of the research design and the methodology used was discussed in this chapter. The research design explains the action plan the research intended to follow and guidance on how the data was collected and analyzed. The methodology chapter follows that gave a more detailed explanation of what research methods were adopted into the study and the shortcoming encountered from those chosen methods. The chapter concludes with a definition of key terms used in the study and the Outline of the study. This chapter ends with a summary.

### **1.2 Orientation of the study**

The decision to close libraries as a means of combating COVID-19 was made at the University of Namibia. In the wake of the COVID-19 outbreak, certain worldwide library organizations, such as the Association for Rural and Small Libraries and the American Library Association, have suggested that public libraries be closed (Pearson, 2020). However, closing libraries has a significant impact on the communities they serve (Pearson, 2020). Several groups worked to

ensure that information was available during the pandemic. The lockdown, which disrupted critical sectors of the economy and library services, brought confusion among students on how to access information to meet the information needs of their academic life outside the library walls. Due to a lack of online access knowledge and the inaccessibility of necessary online access prerequisites such as smartphones and internet, the majority of UNAM students were unable to explore online resources.

The teaching-learning process and research activities was severely affected as a result of the nationwide lockdown, which closed all universities and colleges across the country. While it was vital to follow the government's steps to prevent the spread of COVID-19, it was also critical to continue the educational process effectively, utilizing technology and other relevant resources as needed. Taylor and Francis (2014) reiterated that high level of expertise is required when using social media, which may require skills for customizing applications that aid in the process of accessing online catalogues. Despite the fact that the future may be unpredictable, difficult circumstances need quick and appropriate judgments. The necessity, value, type, and manner of information delivered altered dramatically because of this major transformation in the UNAM Library System. It also fundamentally alters librarians' role as dependable and consistent disseminators of information and expertise. In this unusual and urgent scenario, library professionals' involvement was critical in informing their patrons about the facilities and services they offer which is beneficial to students. During the COVID 19 lockdowns, the current study was to look into how libraries deliver information resources to students. This scenario called into question how academic libraries used to work.

The suspension of in-person services and access to tangible collections at the universities' libraries forced students, teachers, and library professionals to explore utilizing technology is one of the challenges faced in the provision of library services. During the lockout, UNAM library displayed their abilities, sensitivity, and flexibility in responding to the fast changing situation. In such cases, the website become a vital and dynamic platform for connecting with and serving the targeted users. However, this is challenging because technology alone was not sufficient. In this unusual and urgent circumstance, library professionals, particularly those from leading technical universities, play a critical role in informing their patrons about the facilities and services they provide. A study which was done in Ghana by Adarkwah 2020) revealed challenges of online access which are also like the South African context. Digital advancements have given librarians new chances to create new positions and new ways of providing library services. One of these possibilities is the creation of a unified information architecture and knowledge organization structure that allows for quick access and retrieval of information from online resources. In an uncontrolled and unmediated digital environment, this technical infrastructure can help patrons assess the integrity of scientific papers and find information (Tait et al. 2016).

The UNAM Library has several branches, reflecting the University of Namibia's multi-campus system. The library's facilities, services, and resources are focused at supporting the university's academic and research aims, and are thus connected with the university's strategic direction. The website is their virtual home on the internet, but it only covers a portion of the library's offerings.

### **1.3 Statement of the Problem**

The suspension of in-person services and access to tangible collections at the universities' libraries has forced students and library professionals to explore utilizing technology as the only option to



get through the difficult moment. University libraries' traditional techniques of fulfilling users' information needs, which need actual interaction between the library and students have become outdated during the pandemic as a result of the COVID 19 lockdowns. There were benefits and challenges created by the COVID 19 lockdowns. Since the COVID-19 pandemic has caused students to flee their campuses, UNAM libraries have abandoned their customary practices and research has shown that the claim that information was provided using ICT is rhetoric in most university libraries (Omeluzor & Oyovwe-Tinuoye, 2017). This study investigated how the UNAM library reacted to the lockdowns. The study will provide valuable information, which can help UNAM to enhance its services in the events of further lockdowns.

#### **1.4 Objectives of the study**

The study's goal is to find out how University of Namibia students accessed information during the COVID 19 (Lande & Barkova, 2013). The study's objectives were:

- 1.4.1. To find out how the UNAM library provided access to information resource to students during the COVID 19 lockdowns;
- 1.4.2. To investigate the type of information materials and sources that UNAM library provided to the students during the COVID 19 lockdowns;
- 1.4.3. To determine the media and tools that the library used to provide information to students during the COVID 19 lockdowns;
- 1.4.4. To identify the challenges faced in the provision and access to information by the UNAM Library and students during the COVID 19 lockdowns; and

1.4.5. To suggest solutions on the challenges face in the provision and access to information by the UNAM Library and students during the COVID 19 lockdowns.

### **1.5 Significance of the Study**

“A significance of the study conveys the importance of the problem for different audiences that may profit from the study” (Creswell, 2014, p.248). This study will provide valuable information on how to effectively provide information resources to students during a pandemic and remotely.

Therefore, this study is significant to:

- a. **Library students:** The study provides valuable information on how to effectively locate, find and access information resources.
- b. **Academic Libraries:** The study will provide valuable information on how to effectively provide information resources to students during the pandemic and remotely.
- c. **Policymakers:** To make valuable decisions about information provision and access.

### **1.6 Limitations of to the Study**

The study was only limited to the UNAM main Campus leaving out the centers which may have been affected by different factors resulting in different experiences. Similarly, it includes library science students only living out other students. This might be a major limitation as library science students learn about information resources and searching, hence the findings may not be indicative of the true situation regarding the majority of the students.

### **1.7 Delimitations of the Study**

The study was conducted at UNAM main campus and involved library science students only.

### **1.8 Research Methodology**

The study employed a mixed research approach of qualitative and quantitative. The research design is the case study. A mixed-methods study combines elements of both approaches. To acquire a fuller view of the situation and increase the trustworthiness of the results, combine qualitative and quantitative insights. The study used both quantitative and qualitative methods of data collection. The data collection method for the quantitative is survey, which collected data from the students and for the qualitative, it was interview with a library member of staff. The population of this study was UNAM library staff and information science undergraduate students. Stratification was done according to the years of undergraduate library study, followed by convenience sampling to select for each strata. The research instruments were questionnaire for collecting data from the students and semi-structured interview guide for the library staff member. The data collected using questionnaires of this study was analyzed using the Statistical Package for Social Sciences (SPSS). The software's descriptive statistics tools, which include frequencies and cross tabulations, was employed, and the results was presented in tables, bar, and pie charts. Data from key informant interviews was analyzed using thematic analysis and data was presented using descriptive narrative. Chapter 3 presents a detailed discussion of the methodology.

### **1.9 Definition of key terms**

The purpose of this section is to provide clarification on the keywords used in this study. Defining important terms is essential to ensure a common understanding of key concepts and terminology is shared between the dissertation author and his or her audience, particularly if the term is unusual

or not widely known. Clearly defining your terminology will enhance readers' understanding of important terms.

**Information Access-** The ability to successfully identify, retrieve, and use information is known as information access. Information dissemination is a means of providing information services to library patrons. In any crisis situation, such as a war, pandemic or disaster, libraries have a role to play in ensuring that patrons have continuous access to reliable information to avoid misinformation and fake news. According to Ali and Gatiti (2020), the roles of librarians and information specialists in a pandemic are to promote health awareness by creating and disseminating information relating to preventive measures; support research teams, researchers and faculty by providing information regarding the latest developments, research and literature; and meeting the core needs of regular library users.

**COVID-19 lockdowns-** A variety of non-pharmaceutical interventions (including stay-at-home orders, curfews, quarantines, cordon sanitaires, and other societal restrictions) adopted in a number of nations and territories around the world to curtail the spread of COVID-19. The spread of COVID-19 forced the lockdown of libraries. Some international library associations, such as the Association for Rural and Small Libraries and the American Library Association, recommended the closure of public libraries amid the COVID-19 pandemic (Pearson, 2020).

**Inclusive Education (IE) -** Inclusive education refers to how we build and design our schools, classrooms, programs, and activities so that all children may learn and engage in the same way. The 2013 Sector Policy on Inclusive Education, which endorses the UNESCO definition, defines inclusive education as a “process of addressing and responding to the diversity of needs of all children, youth, and adults through increased participation, cultures, and communities, as well as

reducing and eliminating exclusion within and from the educational system (Suzanne, 2015).” It also clarifies that inclusive education entails ending segregation or the deliberate exclusion of certain groups from education due to performance, gender, race, culture, religion, lifestyle, health conditions, or disability conditions, rather than just integrating children and young people with disabilities or those who are vulnerable.

### **1.10 Outline of the report**

The study is organized into five chapters as follows:

**Chapter One:** Introduction to the study gives the background, objectives, statement of the problem, and the research methods used for this study.

**Chapter Two:** Literature Review and Theoretical Framework- This chapter provides a review of the literature within the field of how libraries reacted to the COVID19 lockdowns. The gaps are identified in this literature.

**Chapter Three:** Research Methodology- This chapter discusses the research methodology including research approaches; research design; study population; sampling techniques; data collection methods; validity and reliability of the instruments; data analysis and ethical issues.

**Chapter Four:** Data Analysis and Presentation - This chapter presents data analysed from qualitative and quantitative data sourced from questionnaires and interview schedules. This data was then presented in the form of tables, charts and figures.

**Chapter Five:** Discussion of findings- This chapter discusses the results as presented in chapter four. Summary, Conclusions, and Recommendations- This section provides a summary of the findings, in addition to recommendations based on the outcome of the study and suggestions for further research.

**References:** This section provides an alphabetical list of all literature cited within the study, using the American Psychology Association (APA) referencing style.

**Appendices:** This section of the study provides all documentation, which includes research data collection tools used, permission letters and consent letters required to carry out the study.

### **1.11 Chapter Summary**

This chapter focused on laying the foundation for the study, by briefly highlighting the main topics proposed to be discussed throughout the study. The chapter introduced the research and provided an introduction to the study. A brief background of how libraries provided information access to students during the COVID19 was discussed. The statement of the problem identified the main issues that drove the study. The statement provided a brief overview of the situation in existing academic libraries and the obstacles faced in the information access and provision. The next aspect explained the objectives of the study, detailing the purpose behind the research and what it aimed to investigate. These objectives sought to investigate the awareness, tools and media, challenges and solutions of the information access during the COVID19 lockdowns. The significance of the study followed, highlighting the importance of the study concerning library patrons, academic libraries as well as policymakers. Thereafter the limitation and delimitations of the study were explained. A summary of the research design and the methodology used was also discussed in this chapter. The research design explained the action plan the research intended to follow and guidance on how the data was collected and analysed. The methodology chapter followed that gave a more detailed explanation of what research methods were adopted into the study and the shortcoming encountered from those chosen methods. The chapter concluded with a definition of key terms used in the study and the Outline of the study. The next chapter is on the literature review.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

A literature review is an evaluative report of previous studies found in works that are related to your selected area of study, as a result reviewing what's already known and not known. A literature review enables one to summarize, describe, evaluate and clarify literature to determine the nature of one's research (Babbie, 2013). Through conducting a literature review a researcher can demonstrate their knowledge about the topic under research, which includes theories, key variables, and phenomena, methods, and history.

This literature review is presented under the following sub-headings drawn from the research objectives:

- Libraries' provision of access to information resource to students during the COVID 19 lockdowns;
- The type of information materials and sources provided to students during the COVID 19 lockdowns;
- Media and tools that the library used to provide information to students during the COVID 19 lockdowns;
- Challenges faced in the provision and access to information by students during the COVID 19 lockdowns; and
- Solutions on the challenges faced in the provision and access to information by students during the COVID 19 lockdowns.

## **2.2. Libraries' provision of access to information resource to students during the COVID 19 lockdowns**

Many academics have underlined the importance of utilizing ICT for SDI (selective dissemination of information) services, as well as reaching out to library patrons. Uzohue and Yaya (2016), for example, argue that medical librarians should employ current awareness and SDI services to provide information services to their users. Similarly, Omeluzor and Oyovwe-Tinuoye (2017) evaluate the use of ICT in university libraries. Their research illustrates how SDI and current awareness services are delivered to library clients using tools such as blogs, RSS feeds, Ask a Librarian, Twitter, Google+, emails, online public access catalogues, Facebook, and YouTube. The data also suggest that few libraries used ICT to provide SDI and current awareness services to their customers, and that none of the state university libraries had ICT components on their websites. According to Omeluzor et al. (2014), the introduction of ICT in libraries has improved information gathering, processing, storing, retrieving, and dissemination. Radio, television, computers, CD-ROMs, communication gadgets, and the Internet are all examples of communication media that ICT relies on.

In terms of the media services utilized to communicate information to library patrons during the COVID-19 pandemic, Ishtiaq et al. (2020) discovered that 15 (55.6%) of the 27 respondents in their survey used email to disseminate information to library users throughout the pandemic. The data also demonstrate that university libraries in Sindh, Pakistan, used mobile applications, live chats, and social media such as Facebook, YouTube, LinkedIn, and Instagram to communicate information to patrons during the COVID-19 era. In addition, González-Padilla and Tortolero-(2020) Blanco's study pinpoints the role of social media in the COVID-19 pandemic. The study reveals some of the advantages and disadvantages of social media with regard to information



dissemination, and concludes that social media are a potent means of disseminating information quickly about new discoveries, sharing diagnostic, treatment and follow-up protocols, and comparing different approaches from other parts of the world.

### **2.3 The type of information materials and sources that libraries provided to the students during the COVID 19 lockdowns**

Hinchliffe and Wolff-(2020) Eisenberg's examination of academic libraries' responses to COVID-19 in the United States found that access to both technologies and print items was largely impacted by the epidemic. Furthermore, the vast majority of libraries (80%) reported making no modifications to their existing technology lending programs, while 85% reported giving access to print resources. Regarding their services, 65 percent of the libraries provided reference services, and 25% had limited hours in which to provide their available services while giving phone and online access. According to the findings of the study, 34% of the libraries offered virtual synchronous education. A research by Parikh et al. (2020) indicates library customers' reading patterns during the COVID-19 shutdown. During lockdown, 70% of students and 53% of teachers preferred reading print books, while 7% of pupils and 3% of staff chose e-books, according to the survey. The library's ability to address their demands during the COVID-19 epidemic was decided by their preferences in the utilization of information resources. The libraries at the University of the Pacific (2020) and the University of Adelaide (2020) transitioned to remote operations during the COVID-19 era, making online resources and services available through their respective library websites. Access to e-books, e-journals, publisher databases, and streaming movies were among the online resources, while patrons were given an email address and a link to facilitate dialogue with librarians. During the COVID-19 pandemic, Chan et al. (2020) at the Prince of Wales

Hospital, a tertiary academic hospital in Hong Kong, recommend the use of social media such as Twitter and WeChat to quickly disseminate information to clients.

#### **2.4 The media and tools that the libraries used to provide information to students during the COVID 19 lockdowns**

The COVID-19 pandemic in Nigeria has transformed the way libraries disseminate information and respond to users' information requirements. Most librarians are using ICT technologies like WhatsApp, Twitter, and social media to exchange and disseminate vital information to colleagues and patrons instead of the normal regular processes. In the wake of the COVID-19 outbreak, the Delta State Chapter of the Nigerian Library Association presented a seminar on fake news and misinformation. The webinar brought together information experts from around the world who shared a belief in the value of ICT in information transmission. The Delta State Chapter disseminated posters and pamphlets to raise awareness and prevent the spread of COVID-19. With regard to the media services adopted for the dissemination of information to library patrons during the COVID-19 pandemic, the findings of Ishtiaq et al. (2020) reveal that out of the 27 respondents in their study, 15 (55.6%) used email to disseminate information to library users during the pandemic. The findings further show that mobile applications, live chats and social media such as Facebook, YouTube, LinkedIn and Instagram were used to disseminate information to patrons in the COVID-19 era by university libraries in Sindh, Pakistan.

## **2.5 The challenges faced in the provision and access to information by the Library and students during the COVID 19 lockdowns**

- Challenges related to studying conditions (access to a quiet place to study, access to equipment and to a reliable internet connection, access to course study materials and confidence in using online platforms).
- Challenges related to funding (loss of employment/income, difficulties in meeting living costs, issues with receiving scholarships).
- Challenges related to well-being (lack of supportive social networks; prominent feelings of frustration, anxiety and boredom with academic activities).

## **2.6 Solutions to the challenges faced in the provision and access to information by the Library and students during the COVID 19 lockdowns**

- Supporting information access in adapting their curriculum and methods to online access;
- Ensuring the well-being of staff and students in such turbulent changes;
- Supporting students in being better prepared for online information access;
- Avoiding the risk of disengagement and drop-out of students who face difficulties in the online environment;
- Adapting assessment processes to safeguard quality standards and academic integrity in the context of online access;
- Adapting quality assurance regulations for a more flexible approach to address the online resources and blended delivery of study programmes;
- Addressing potential negative consequences on the recognition of online access.

## **2.6 Theoretical framework**

The acceptance of technology is an active area of research, whereby several theories and models have been proposed to understand the drivers of technology adoption (Akbar as cited in Williams, 2018). This research is guided by the theory of Inclusive Education (IE), which, in its most traditional definition, entails educational institutions that are built or transformed with the goal of accommodating students who have difficulty accessing information and adapting to the COVID 19 academic environment (Schuelka et al., 2020). From a broader viewpoint, IE refers to the process of recognizing and supporting groups who are marginalized in any form. The broader view of IE considers student diversity and how educational institutions could adapt to these disparities. As a result, IE can be characterized as learning that supports all students' personal, academic, and professional growth, regardless of their age, gender, language, economic situation, handicap, or other distinctions. Learning institutions are being urged to adapt education to fit the demands of students, such as altering library systems to serve students in the COVID 19 age. The foundation of IE is the idea of Education For All, which assumes that every learner has a right to equal and high-quality access to information, educational opportunities and benefits (UNESCO-IBE, 2016). The provision of excellent education is in keeping with the fourth Sustainable Development Goal which prioritizes inclusive and equitable quality education. The practice of IE necessitates an understanding that necessitates a constant process that aims to maintain all students' engagement. It also tries to restructure learning institutions' cultures, policies, and practices in response to student diversity.

## **2.7 Chapter Summary**

Literature reviewed in general looked into the roles of university libraries in pandemic situations, highlighting how they help their members disseminate and mobilize information during the COVID19 lockdowns. Although, studies on academic libraries revealed the importance ICT to effective service of information access and provision some challenges are evident. Some of the challenges are lack of skills, poor infrastructure, poor ICT infrastructure and lack of standardization and policy in information provision. Literature was reviewed on the impact of the Covid19 shutdown on undergraduate and postgraduate students at various West Bengal colleges and universities. Students reported online access issues such as poor internet access, unfriendly study surroundings, tension, despair, and anxiety, according to the findings. The study therefore investigated how the UNAM library provided information to students during the corona lockdowns. Despite the challenges and limitations, literature showed The Ask a Librarian chat service at Duke University Libraries was also expanded to include research and reference issues, as well as direct connections and access to topic specialists who may give support for remote consultation and training. In addition, Duke University Libraries made its resources and reference services, including digital documents and repositories, available to both registered and non-registered users while its personnel worked remotely to support these services. This chapter also looked at the technology adoption theories, namely the theory of Inclusive Education (IE), which, in its most traditional definition, entails educational institutions that are built or transformed with the goal of accommodating students who have difficulty accessing information and adapting to the COVID 19 academic environment. The next chapter discusses research methods and sampling techniques that guided the study.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter describes the research methodology and techniques used in this study. Research methodology according to Rajasekar, Philominathan and Chinnathambi (2013) is a systematic procedure of solving a problem. It is a science on how research needs to be conducted. It is the procedures by which researchers go about carrying out, describing, explaining and predicting phenomena are called research methodology. Research methodology can also be defined as a way to steadily solve a research problem, which helps a researcher to understand the assumptions underlying various techniques including theoretical and philosophical assumptions upon which research is based and the implications of these for the methods and methods adopted. It is also defined as the study of methods by which knowledge is gained, where its aim is to give the work plan of research (Rajasekar et al., 2013). This chapter is structured by first addressing the study's research design that influenced the study. The population is then discussed, the methods of sampling are adopted and the instruments of data collection and the procedure of the data collected are explained and how the data was analyzed. Ultimately, the chapter ends with the research ethics and how the data was analyzed. The chapter is finally ended off by a discussion of the research ethics and the chapter summary.

#### **3.2 Research Design**

This study employed a case study research design, which is defined as a method of researching social factors through a detailed description and analysis of a scenario, such as a detailed examination of a group or event. The research design may also be viewed as a tool that can be used to provide direction to the researcher on the most cost-effective and efficient way to gather data

and analyze it in connection to the research (Hernon & Schwartz, 2009). In other words, the research design provides the researcher with the simplest and most cost-effective method of doing the study. This study used a concurrent mixed methods research approach, which, according to Creswell (2003), is a research approach in which both qualitative and quantitative data are collected at the same time. Concurrent approaches include concurrent triangulation, concurrent nesting, and concurrent transformational designs, among others. Both qualitative and quantitative data are collected simultaneously in each of the aforementioned methods, albeit one form of data may be prioritized over the other. Concurrent triangulation uses both qualitative and quantitative data to more precisely characterize correlations between variables of interest. Both qualitative and quantitative data are collected during the same stage in concurrent nested designs, albeit one type of data is given greater weight than the other (Creswell, 2003).

The qualitative and quantitative data was collected concurrently for confirmation. The objectives of the study sought to be answered by both data collected from the survey (through the use of the questionnaires) and from the interviews held with the librarians. Therefore, showing equal weight distributed among the qualitative and quantitative data collected. The research adopted a multiple case study approach which employed both qualitative and quantitative research approaches. Single case studies generalize findings, in an analytical way, however, multiple-case studies according to Yin (2014) strengthen or broaden generalizations. Other benefits of carrying out a multiple case study according to Gustafsson (2017) is that the data generated from a multiple case study is strong and reliable and the researcher can clarify if the findings from the results are valuable or not. Multiple case studies such as this, has its strength in replication logic, whereby the case studies of UNAM library staff and students were designed to corroborate each other.

### **3.3 Population**

Creswell (2014) defines a study population as "the entire group that provides the field of application for the inquiry. The population of this study was UNAM Library staff and information science undergraduate students.

### **3.4 Sample and sampling**

The UNAM Windhoek campus was selected as location to carry out the study as it is the only tertiary institution that offers Library and Information Science course in Namibia. Purposive sampling was the chosen procedure to select the institution as it achieved representativeness for comparability as stated by Creswell (2014). There are two types of sampling techniques, probability and non-probability sampling techniques used in this study.

Stratified sampling – This method is designed to produce more representative and therefore produce more accurate samples by making sure that different groups of the population are adequately represented in the sample, so the level of accuracy in estimating parameters is increased.

Convenience sampling: is a non-probability sampling technique where the members of the population meet particular criteria, such as easy accessibility, geographical proximity and availability at a given time (Etikan, Musa & Alkassim, 2016). For the quantitative part of the study the sampling method adopted was a combination of stratified sampling technique and convenience sampling technique. In this method, the population was divided into different subgroups or strata (according to year of study). Eight (8) students from each year of study making it 36 students and 4 staff members who were purposively selected made up the study sample. Convenience samples



are sometimes referred to as 'accidental samples' because elements may be selected in the sample, as they happen to be positioned, spatially or administratively, near to where the researcher is conducting the data collection (Etikan et.al., 2016). This purposive sampling method was preferred because it gathered data from students of different levels of study, age, group and marital status. A non-probability sampling technique was utilised to select participants for the qualitative part of the study. The purposive sampling technique, also called judgment sampling, is the deliberate choice of an informant due to the qualities the informant possesses. According to Tashakkori and Teddlie (2010), purposive sampling techniques involve selecting certain units or cases based on a specific purpose rather than randomly. The library staff were purposively selected based on their managerial position in the library.

### **3.5 Data Collection Methods**

In-depth interviews with library employees were undertaken as part of the qualitative approach to this study since they were thought to be crucial in offering greater insight into the state of information access in libraries. An interview is a data collecting method that is defined as a conversation between two or more persons. An interview entails making direct contact with the participant and asking them questions about the study's problem (Bless & Smith, 2000). The interviews with librarians were lengthy and in-depth. To facilitate proper description, open-ended guiding questions were designed. There are different types of interviews according to (Bless & Smith, 2000):

- **Structured interview:** This type of interview is utilized with large groups of people. To guarantee consistency and uniformity, questions are pre-set and pre-determined.

- Semi-structured interview: This interview approach is versatile because the questions are neither completely fixed nor completely unstructured. Researchers who utilize this strategy usually have a pre-planned set of questions and conduct interviews in a more conversational style. When employing this kind of interviewing, researchers must be careful not to get sidetracked.

- Unstructured interview: This interview is devoid of any sort of order or structure; it also lacks a set of preset questions. The interviewers usually have a list of subjects in mind that they want to cover. Such interviews are more open-ended and flow like everyday discussions. Researchers that conduct such interviews are frequently highly adept, as they have very little control over the dialogue but still need to keep the interviewee on track. Such interviews are useful for gaining insight into a specific issue within a specific cultural setting (Zhang & Wildemuth, 2014). The semi-structured interview method was used in this study because it was flexible enough to allow the researcher to probe when interviewing the study sample if queries were not answered satisfactorily (Bless & Smith, 2000). It also made the librarian feel more at ease because it was a more concentrated conversational style than unstructured interviews. This approach's flexibility, especially when compared to organized interviews, allows for the discovery or development of material that is essential to participants but may not have been considered relevant by the researcher earlier (Bless & Smith, 2000). Using interviews as a method has a number of advantages. One of these is that researchers receive immediate responses to their questions from their respondents. If there is any doubt about a question, the respondent has the opportunity to clarify it right away. A survey was used to obtain data from the students for the quantitative portion of the study. Surveys offer a kind of anonymity, allowing students to be more honest in their responses. Respondents may be more honest than they would in a face-to-face conversation. By asking people questions and tabulating their responses, survey research collects information about

their traits, opinions, attitudes, and past experiences from one or more groups of people. In survey research, all respondents in the sample are given the same questions, in the same order, by the same interviewer, which is a significant distinction from qualitative research methods like in-depth interviewing and life histories. The survey method is one of the most widely used data gathering methods in the social sciences, and it is used to gather information on a wide range of topics. There are several types of surveys available, including the following:

- Descriptive surveys: include descriptions of age, gender, and study tendencies, for example.
- Explanatory surveys are more detailed than descriptive surveys and explain why things are the way they are.
- Cross-sectional surveys: employ a sample of participants who reflect a target demographic and include descriptions and inferences from respondents gathered at a single moment in time.
- Census surveys: Unlike cross-sectional surveys, census surveys include every single person in the target population (Maree, 2012).
- Longitudinal surveys: This type of survey entails repeatedly examining variables at different points in time. The same group of people was investigated over a long period of time, which required the administration of many surveys at different times (Creswell, 2009).

The cross-sectional survey approach was utilized in this study, and the questionnaires were given to the students at a single moment in time (during their class time), allowing the researcher to look at multiple features at once (age, income, gender, etc.). The cross-sectional survey method allows

the researcher to examine a snapshot of the participants in order to determine the prevalent traits at the moment.

### **3.6 Instruments**

According to Kumar (2011), the development of data collecting tools is critical because the outcome of a study is determined by how data was gathered from the start. Kumar goes on to say that the type of information gathered is determined by the questions asked of the respondents. The data was collected using a standardized questionnaire and semi-structured interview guide.

#### **3.6.1 Questionnaire**

A questionnaire is a document that is made up of questions that are tailored to the study's goals in order to obtain answers to the research questions (Tashakori & Teddie, 2009). The current study included self-administered questionnaires, which were given to students in both libraries. The advantage of using questionnaires is that they are inexpensive and may be used to survey a big number of people in a short amount of time, even if they are not in the same geographical place. In the first portion of the questionnaire, students were asked to score their familiarity (awareness) with how to obtain information during COVID19, as well as their information access in 10 applications, using a 5-point Likert-type scale ranging from 1 to 5. The respondents were asked to rate how strongly they agreed or disagreed with a statement using a Likert scale. Another scale utilized in the survey was a Dichotomous Scale, which has two answers that are diametrically opposed to each other, such as "Yes" or "No," "Male" or "Female." There is no way for a reply to be impartial, and the lack of neutral options has a lot of value (Birkett, 2019). The questionnaire also included a series of open-ended questions designed to elicit the students' opinions and thoughts on a certain topic. They were also used as a follow-up question to a question that asked

them to answer "yes" or "no." The questionnaire's second section featured a series of questions aimed at determining what was preventing students from using online library resources. The questions were designed to elicit the students' awareness of technological innovation, their level of use, and the barriers to their acceptance. The use of closed-ended questions was to obtain quantitative-based results. Since people's opinions were sought for, the type of scale used needed to be an effective one, such as the Likert scale.

### **3.6.2 Semi-Structured Interview Guide**

To help with the interviews, a semi-structured interview guide was created. A set of questions to be investigated during an interview is referred to as a semi-structured interview guide (Maree, 2012). A semi-structured interview guide consists of 66 core questions that help define the areas to be investigated while also allowing the interviewer or interviewee to diverge to pursue an idea or answer in greater depth. The semi-structured interview guide was created to ensure that participants provided the same information by covering the same ground but allowing the researcher to investigate or clarify concerns. The researcher questioned librarians by asking particular questions, which were then compared to other responses from additional interviews. The researcher asked the same questions in each interview but remained flexible as new information kept arising.

### **3.7 Reliability and validity**

The term "reliability" refers to the measurement's stability and consistency (Bryman, 2015). As a result, research findings are considered reputable if they can be replicated and consistently produce consistent results (Yin, 2009). According to Gerring (2001), the ability of a good research design to provide results that do not fluctuate when repeated again and over is the product of a solid

research design. The first is whether comparable results would be obtained if the study were repeated, and the second is whether the same results would be correct if they were obtained. Both questions are about the study's validity and reliability, respectively. A large research population was used to ensure the research equipment's reliability. In quantitative research, the ability to obtain the same result is critical "because if researchers are employing conventional measurement instruments, such as attitude scales or observation schedules, they must be sure that these give consistent results" (Hammersley, 2008, p.43). As a result, reliability refers to the confidence in the ability to repeat the data collection process: "without the procedures themselves creating different outcomes" (Payne & Payne, 2004, p.196). The constancy with which a measuring device produces a specific answer while the thing being measured hasn't changed is known as instrument reliability. Instructions were given as plain and understandable as feasible to respondents in order to obtain consistent and trustworthy results. The assessment of trustworthiness is critical in qualitative research to assure reliability. The terms credibility, neutrality or confirmability, consistency or dependability, and application or transferability are fundamental quality criteria in qualitative paradigms. Dependability in qualitative research closely corresponds with the idea of reliability in quantitative research. Semi-structured interviews with librarians were used in this study to allow employees to provide detailed responses while also giving the interviewer the opportunity to test and extend their responses (Rubin & Rubin, 2005). As a result, the responses were more consistent.

Validity refers to the extent to which the information obtained is a true reflection of the subject under examination, and it is a critical aspect in acceptable research (Bryman, 2015). The extent to which the measuring instrument covers the phenomena under investigation is referred to as content validity. The amount to which an instrument measures what it was designed to measure is referred to as its validity. In other words, do the questions address the issue at hand, or are the responses

provided by the individual answering them impacted by other factors? (Yin, 2009). The questionnaire was pre-tested for content validity in this study. "One of the instruments that can be utilized for content validation is pre-testing questionnaire and interview schedules" (Ngulube, 2005, p. 136). The pre-test was given to a group of full-time students at the library. The researcher asked the respondents if the questions were clear and intelligible after they completed the questionnaire. The result was that a few questions were unclear and needed to be modified to make them more understandable. The researcher also double-checked that the questionnaire's questions were relevant to the goals. The study utilized an interview guide to ensure validity, as it allowed in-depth probing while allowing the researcher to keep the interview within the parameters traced out by the aim of the study (Berg, as cited in Alshenqeeti, 2014).

### **3.8 Procedure**

A research authorization letter from the University of Namibia's Postgraduate School provided the researcher permission to perform the study in the library, which the researcher used to obtain approval. The quantitative portion of the study was carried out by the researcher administering questionnaires to students during lectures on the UNAM campus. The nature of the research was communicated to the lecturers in advance, and they gave permission for the researcher to conduct surveys in their lectures/classes. The instructor was then advised by the researcher that students would need 15 minutes of their class time to complete the questionnaires. Following that, the professors would check their schedules to see when they had the most students and would advise the researcher to hand out questionnaires within that time frame. Five questionnaires were given to each class. If a class had fewer than 5 students, a second meeting was scheduled to allow the researcher to administer the remaining questionnaires. In most circumstances, the lecturer would introduce the researcher; in other cases, the lecturer would enable the researcher to describe the

study's purpose and inform students that participation was entirely voluntary. Those who agreed to take part were required to sign an informed consent form. Students were also able to ask questions if the questionnaire was unclear to them due to the researcher's presence. After obtaining authorization from both Heads of Libraries, appointments were organized to interview librarians for the qualitative portion of the study. The interviews were taped with the interviewees' permission and lasted approximately 10 minutes, depending on the length of the interviewee's explanations, with the longest interview being approximately 25 minutes. Some librarians, however, refused to be recorded, and in such cases, the researcher took down responses as they were given.

### **3.9 Data Analysis**

The quantitative data from the questionnaires was analyzed with the use of the Statistical Package for the Social Sciences (SPSS), a computer-based application that generates descriptive statistics. The data was first cleansed, which included double-checking surveys for accuracy and completeness. Only 35 of the 40 surveys administered were worth analyzing. Simply said, data cleaning entails removing errors from the data, as some inaccuracies are unavoidable both during data collection and input (Babbie, 2016). The researcher carefully examined the questionnaires obtained (quantitative data) for any errors or omissions that would have altered the description of the students' experiences with COVID19 in the UNAM academic library's information access. The results were then presented in the form of tables and figures. Thematic content analysis was used to examine responses to open questions and interviews. Babbie (2013) defines this type of data analysis as "the non-numerical evaluation and interpretation of observations, with the goal of discovering underlying meanings and patterns of linkages" (p.390). To achieve clarity and understanding of the responses, the data gathered through the interviews with library employees



was first read and understood. Following that, common qualities in the data (themes) were found and developed based on library staff replies, and these themes were established. The ongoing analysis to refine the specifics of each theme by generating clear definitions and names for each theme is referred to as theme defining.

### **3.10 Research Ethics**

There are hazards associated with confidentiality, anonymity, right to privacy, conflicts of interest, and exploitative interactions in any study that includes employees as research participants. Neuman (2011) goes on to say that research can have harmful consequences for those being examined, and that research participants and sites must be respected. Research ethics provides a set of moral rules for conducting research in a morally acceptable manner to the researcher (Gillespie, 2008). Students were told before the survey that it was completely voluntary and that they would not be forced to do it. This was done to guarantee that the respondents were participating voluntarily and to rule out the possibility that they were coerced into filling out the questionnaire. Creswell (2009) agreed, stating that it is the researcher's obligation to ensure that participants understand that their participation is important but not required. Potential participants were given the option of declining to be interviewed or answering any of the interview questions and questionnaires. Participants also had the option of declining to be recorded. The University of Namibia Research Ethics Committee (UREC) awarded an ethical clearance certificate, indicating that the researcher has satisfied the committee on all necessary ethical considerations for the study. Respondents were asked to give their informed consent by reading and signing a consent letter indicating that they were aware of the study's purpose and that they were willing to participate. Informed consent, as defined by Babbie (2016), is a standard in which participants voluntarily participate in research investigations after fully knowing the hazards involved. Confidentiality was

ensured by using codes instead of names of the staff who were interviewed. The Questionnaires did not require participants to give their names.

### **3.11 Chapter Summary**

The methods and study plan used by the researcher to collect data were provided in this chapter. To enable the researcher to obtain data that answered the study's aims, this study used a mixed-method technique. Both library staff and students were included in the study. The pupils were chosen using a multi-stage sampling approach. The stratified sample technique was used first, followed by convenience, and then purposive sampling for the library staff. A questionnaire was utilized to collect data from students, and a semi-structured interview guide was used to conduct interviews with library staff. The study also looked at how the researcher dealt with the study's ethical difficulties. The next chapter focuses on the analysis and presentation of the data.

## CHAPTER 4

### DATA ANALYSIS AND PRESENTATION

#### 4.1 Introduction

The focus of this chapter is to analyze the data and draw conclusions about how the library provided students with access to materials during COVID 19 lockdowns. According to Garaba (2010), the objective of data analysis and findings presentation in research is to communicate findings in an effort to address the study's stated objectives or research questions. The data gathered from the surveys and interviews is presented under the following subheadings as per the thematic issues drawn from the research objectives:

- Demographic information
- How the Library provided information to students during the COVID19 lockdowns.
- Types of information materials and sources provided by the library to students during COVID 19 lockdowns.
- The media tools used by the Library to provide information to students during COVID19 lockdowns.
- Kind of services provided by the library during COVID19 lockdowns.
- Challenges faced the provision of information during the COVID19 lockdowns
- Suggest solutions to challenges

#### 4.2 The Response Rate

As mentioned in Chapter 3, the sample consisted of 40 participants. Of the 40 participants, a total of 31 students completed the questionnaires and participated in the study. A total of 4 librarians selected through purposive sampling were interviewed. (Coded as L1, L2, L3, and L4). This is a

response rate of 87.5 %. According to Fincham (2008), a response rate of 60% for most research should be the goal of a researcher.

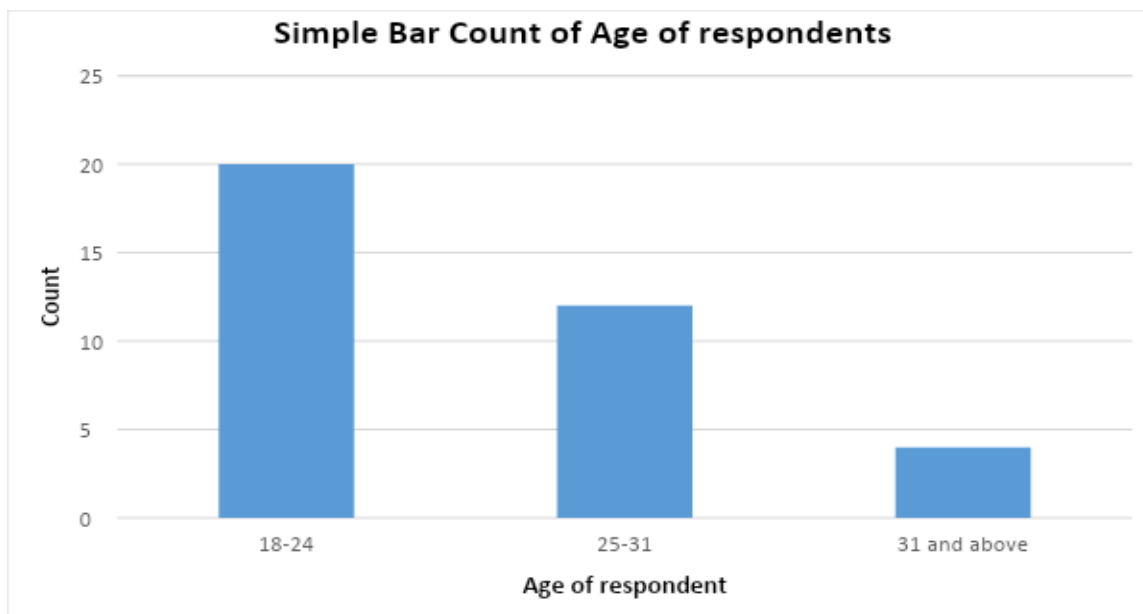
### 4.3 Demographic Information

The study sought to investigate the demographical information of the respondents of both the questionnaires and interviews. The demographic data consisted of the following information:

- Age
- Sex
- The current year of study

#### 4.3.1 Age

As seen in Figure 4.1 below, the majority of the survey respondents fell within the age group 18-24 years and the least were either 31 years and above.



**Figure 4.1: Age of respondents**

### 4.3.2 Sex

The table below indicates the sex of the respondents.

N=35

**Table 4.1: Sex of respondents**

	<b>Frequency</b>	<b>Percent</b>
Female	20	50%
Male	15	37.5%
Total	35	87.5

As seen in Table 4.1 above, 20 (50 %) of the respondents were female and 15 (37.5%) were male.

**Table 4.2 Qualification and year of study**

Qualification	1 Year	2 Year	3 Year	4 Year
Masters in LIS		2		
B.A LIS			3	19
Diploma LIM			7	

The focus of the study was to elicit information on the efforts of the library in the provision of information to patrons during the COVID-19 pandemic. Among the respondents, 15 (37.5%) were male while 20 (50%) were female. Two (5%) of the respondents were Master's degree students, 3 (7.5%) were third year and 19 (45.5%) were Bachelor's degree students, and 7 (17.5%) were diploma students in Library and Information Science. Of the respondents, 4% of the were librarians. In respect of the work experience of the respondents, the results reveal that L1 and L2

(2%) of the respondents had 5–10 years of work experience, L3 and L4 (2%) had worked between 2 and 5 years. It may be deduced that a total of 90% of the respondents had worked for many years in the library sector and therefore should have been able to devise ways of supporting their patrons during a crisis such as the COVID-19 pandemic.

## Findings

### 4.4 How the Library provided information to students during the COVID19 lockdowns

The first objective was to **find out if library provided information to their patrons during the COVID-19 pandemic.**

**Table 4.2 Provision of information to patrons during the COVID-19 pandemic**

Statement	Yes	No
The library provided information on personal hygiene (hand-washing, cleanliness and use of hand sanitizers).	26	5
The library supported the provision of electronic information resources to patrons during the COVID-19 pandemic.	27	4
The library provided information using flyers, posters and handbills to sensitize the general public to the prevention and control of the COVID-19 pandemic.	12	19
The library shared awareness information in other areas of research interest with registered students.	10	21

The library provided information to students on the symptoms of COVID-19.	12	19
The library provided information on how to curb the spread of COVID-19.	9	22
The library provided flyers about government decisions on the treatment of COVID-19	7	24
The library shared links with its patrons to access online information in all areas of study.	22	7
The library provided information to support users in their ongoing research.	11	20
The library sent out information on how to access help for people with COVID-19.	6	25

The findings in Table 4.2 show that during the COVID-19 epidemic, UNAM Library gave users (26) advice on personal hygiene, including hand-washing, cleanliness, and the use of hand sanitizers. Table 4.2 also reveals that, with a score of 27, the library gave users access to electronic information resources so they could find material for their studies. Additionally, Table 4.4.1 demonstrates that, with a score of 12, libraries employed posters and flyers to spread information in an effort to educate the public about the prevention and control of the COVID-19 epidemic. The overall results in Table 4.2 indicate that the library provided information to their patrons on all of the items that were examined in this study for instance, information on the symptoms of COVID-19, information on curbing the spread of the COVID-19 pandemic, and the distribution of flyers on government decisions on the treatment of COVID-19 each had a score of 10. Furthermore, the results in Table 4.2 reveal that the library provided information through sharing links with patrons to access online information in all areas of study to support their ongoing research, as well as

providing information to patrons on how to access help for people with COVID-19, with a mean of 11. According to the interviews, all the librarians indicated that the library provided sanitizers to every library section and encouraged students through posters to always put on masks and promoted hand washing for every contact visit to the library.

According to the Interviews conducted with the Librarians, section A was to state how the UNAM Library provided access to information to students during the COVID19 Lockdowns. The first question was how the library provided access to information on personal hygiene (hand washing, cleanliness and use of hand sanitizers). All the librarians noted that the library provided sanitizers to the library premises and encouraged students to always put on masks through the help of sign posters across the library. L3 noted that the library promoted hand washing and cleanliness by providing running water around campus. The second question was to state how the Library provided information resources to students during the COVID19 Lockdowns. All the librarians indicated that the library provided e-resources and online databases to help students access books in all courses. L1 noted that these resources helped students with their ongoing research and learning. The third question was to state how the Library supported students in their ongoing research. All the librarians said that the library provided guidance on how to conduct research and provided resources related to student's research topics.

#### **4.5 The types of information materials and sources that libraries provided to their patrons during the COVID-19 pandemic**

The second objective was to ascertain the types of information materials and sources that libraries provided to their patrons during the COVID-19 pandemic.



**Table 4.3 To ascertain the types of information materials and sources that libraries provided to their patrons during the COVID-19 pandemic**

<b>Statement</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Strongly disagree</b>	<b>Disagree</b>
The library provided print materials to students during the COVID-19 pandemic.	<b>0</b>	<b>5 (16.1)</b>	<b>26(83.8%)</b>	
The library provided e-books and e-journals to students during the COVID-19 pandemic.	<b>24 (77.4%)</b>	<b>0</b>	<b>0</b>	<b>7 (22.5%)</b>
The library provided access to online databases.	<b>16 (51%)</b>	<b>0</b>	<b>0</b>	<b>15(48.3%)</b>
The library provided newspaper cuttings and new arrivals to students during the COVID-19 pandemic.	<b>0</b>	<b>13 (41.9%)</b>	<b>18 (58.0%)</b>	<b>0</b>

Table 4.3 findings reveal that while the majority (26 or 83.8%) of respondents strongly disagreed that they did not have access to print materials, fewer respondents (5 or 16.1%) did. According to 24 (77.4%) of the respondents, the findings in Table 4.5.1 also demonstrate that UNAM library offered e-books and e-journals to their clients during the COVID19 Lockdowns. The majority of responders (16, or 51%) concurred that during the COVID-19 pandemic, UNAM library provided access to internet databases. The majority of respondents (18, or 58.0%) agreed that the library

gave out newspaper clippings and new arrivals to its customers throughout the COVID-19 lockdowns, according to the findings in Table 4.3.

Section B of the interview was to identify the types of information materials and resources that the UNAM Library provided to the students during COVID19 lockdowns. The first question was to identify what type of print materials the library provided to students during the COVID19 lockdowns. The librarians noted that the library did not provide any print materials at some point because of the lockdown when the library closed down. However, L1 indicated that the library started operating when the lockdown was lifted and students were allowed to borrow books again. The second question was what type of electronic materials the library provided to students during the COVID19 lockdowns. The librarians indicated that electronic book, electronic journals, and every UNAM online publications were provided to students to be accessed online during the lockdowns. L3 indicated that the library provided online previous question papers to the student portal. The third question was to state whether the library provided access to online databases and give examples. All the librarians agreed that the library provided access to online databases such as EBSCOHOST, EMERALD, SCIENCEDIRECT, SciVAI, SCOPUS, and Google Scholar. The library is subscribed to these databases and students can access them for free.

#### **4.6 To determine the media/tools that the library used to provide information to students during the COVID-19 pandemic.**

The third objective was to determine the media/tools that the library used to provide information to students during the COVID-19 pandemic.

**Table 4.4 To determine the media/tools that the library used to provide information to students during the COVID-19 pandemic**

<b>Media/tools</b>	<b>Yes</b>	<b>No</b>
<b>Ask a Librarian</b>	<b>31</b>	<b>0</b>
<b>Frequently Asked Questions (FAQs)</b>	<b>4</b>	<b>27</b>
<b>A library blog</b>	<b>2</b>	<b>29</b>
<b>A library website</b>	<b>16</b>	<b>15</b>
<b>Online public access catalogues</b>	<b>27</b>	<b>4</b>
<b>Professional platforms, such as LinkedIn, ResearchGate, Mendeley, ORCID, Academia.edu, Kudos and Research Square</b>	<b>4</b>	<b>27</b>
<b>Mobile technology and mobile library services</b>	<b>4</b>	<b>27</b>
<b>Print media such as newspapers and magazines</b>	<b>4</b>	<b>27</b>
<b>Audiovisual media such as radio and television</b>	<b>2</b>	<b>29</b>
<b>Social media such as Facebook, Twitter and Instagram</b>	<b>20</b>	<b>11</b>
<b>WhatsApp</b>	<b>27</b>	<b>4</b>
<b>Email</b>	<b>27</b>	<b>4</b>
<b>Repositories</b>	<b>27</b>	<b>4</b>

According to Table 4.4, the UNAM library used email, WhatsApp, repositories, online public access catalogs, and Ask a Librarian, all of which had higher ratings of 31. To inform students, they also employed print media (4) and FAQs (4). Additionally, Table 4.4 findings demonstrate how professional networking sites, mobile technologies, and mobile library services are used to instruct students all had a score of (4). The findings also demonstrate how the library website and social media were used to instruct students with a score of (20) yeses each, in addition to the blog and other audiovisual materials of (4) yeses each.

Section C of the interview was about the media tools that the library used to provide information to students during COVID19 lockdowns. The first question was to give what media tools the library used to provide access to information to students. The librarians said that the library used media tools such as the library website and the portal to communicate and inform students during the lockdowns. The second question was to state whether the library used mobile technology and how it was used. They indicated that the library used mobile technology to keep in touch with students remotely and keep them updated with the information about the remote library operations. The third question was what type of print media the library used to provide information to students during the COVID19 and how it was used. The library used sign posters to guide students about the library operations and to sensitize them on how to curb the further spread of the corona virus. The fourth question was what type of audiovisual media the library used to provide access to information to students during the COVID19 lockdowns and how it was used. L4 noted that the library made audiovisuals to teach and to guide students on how to search and access information online remotely. The fifth question was what type of social media platforms the library used to provide information access to students during the COVID19 lockdowns and how they were used.

All the librarians said that the library used social media platforms such as Facebook, WhatsApp, Instagram and Twitter to interact with students and know what they need.

**4.7 To identify the challenges facing the provision of information to students during the COVID-19 pandemic**

The fourth objective was to identify the challenges facing the provision of information to students during the COVID-19 pandemic.

**Table 4.5 Challenges facing the provision of information during the COVID19 pandemic lockdowns**

<b>Challenges</b>	<b>Most</b>	<b>Least</b>
Internet Connectivity Downtime	26	5
Inadequate Power Supply	20	11
Physical Library Closure	29	2
Lack of Data subscription for librarians	15	16
Limited contact with Students	29	2
Poor Coordination of activities	27	4

According to the data in Figure 4.5, 26 respondents said that it was difficult to provide information during the COVID-19 epidemic because of the poorly coordinated library activities. This implies that in order to mitigate the effects of a similar incident in the future, the library may need to prioritize its facilities, resources, and staff. The findings in Figure 4.5 also show that 29 respondents said the government of Namibia's decision to close tertiary institutions as a result of the COVID-19 pandemic was a challenge. Figure 4.5's findings also show that 29, 20, and 26

respondents, respectively, said that the limited contact, insufficient power supply, and the disruption of Internet connections during the lockdown were obstacles to providing information access to students during that period. These obstacles were brought on by the COVID-19 pandemic lockdowns. One of the respondents to the survey's "open-ended" questions wrote:

*The UNAM library was closed due to curb the spread of the COVID19 virus. However, access to the Electronic Library (E-Library) via the Internet was still available. Students were not aware of how to access these resources online and remotely. The library did not engage students on the e-library and the librarians to interact with.*

This claim demonstrates that despite the COVID-19 outbreak closing the library to students, e-library were still available to provide information and allow access to electronic resources. The respondent did indicate that there weren't many interactions between users of the e-library and the librarians. This suggests that the majority of students could not have been aware of the electronic library and other materials that were accessible online.

Section D of the interview was about the challenges faced in the provision and access to information by the UNAM Library and students during the COVID19 lockdowns. The first question was to identify services that were not provided during COVID19 lockdowns. They indicated that the library was not able to provide the lending services of physical books in the library collection because the library was totally closed and students were away from campus without any physical contact with the library. The second question was to give reasons why the library not able to provide the stated services. The reason given was because of the campus shut down. The third question was to explain the challenges if any that the library faced in the provision of access to information during COVID19 lockdowns. The library faced challenges like not reaching to every student and know their needs. This led to some students being left out without

being provided with what they need. L2 stated that some students could not be reached as they were in villages without internet connections. The fourth question was what challenges did students face in accessing information during the COVID19 lockdowns. They all indicated that most students did not have internet connections to access online resources. However, L4 indicated that even though UNAM provided internet devices to students, their geographical locations had very poor internet connections.

Section E of the interview was to suggest solutions to challenges. The first question was to suggest solutions to the library regarding the challenges stated above. The librarians suggested that the Library and UNAM at large should strongly work together in order to help students access the library resources and be able to fulfill their needs academically. The second question was to add anything regarding the interview. They state that students should inquire about their information needs and let the librarians know about what type of library resources they want. This will help librarians to be ready to serve them and be prepared to answer their questions from frequently asked questions

#### **4.8 Chapter Summary**

This chapter presented the results of the study. The quantitative data from the questionnaires was analyzed in two parts as they contained both close-ended (quantitative data) and open ended questions (qualitative data). First, the quantitative data from the questionnaires were cleaned and analyzed through SPSS and presented through graphs and tables. From the 40 questionnaires that were completed by students, only 35 were fully completed and analyzed. Secondly, the qualitative data was analyzed by assigning codes to the responses, and identifying common characteristics in the responses and creating themes. Thematic content analysis is the term for this type of qualitative data analysis. Thematic content analysis was used to code and arrange the qualitative information

obtained from the staff interviews at the library into themes. The outcomes demonstrated that students had access to material online. The findings among library personnel revealed that they provided the "ask a librarian" service to assist students in finding information during COVID19 Lockdowns. The next chapter is on discussing the findings, summary of findings, conclusions and recommendations.



## CHAPTER 5

### DISCUSSION OF FINDINGS, SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

In light of the study's goals and what is already known about the subject from the literature, this chapter's goal is to describe and explain the results (Welman, Kruger & Mitchell, 2005). Bui (2009) provides additional clarification on the chapter's purpose by stating that it should contain an overview of the key findings together with a succinct interpretation. A discussion of the results looks for trends in the data and assesses whether the literature supports or defies interpretations. This chapter discusses the findings within the same key issues under which data was presented as follows:

- How the UNAM library provided access to information resource to students during the COVID 19 lockdowns;
- The type of information materials and sources that UNAM library provided to the students during the COVID 19 lockdowns;
- The media and tools that the library used to provide information to students during the COVID 19 lockdowns;
- The challenges faced in the provision and access to information by the UNAM Library and students during the COVID 19 lockdowns; and
- The solutions on the challenges face in the provision and access to information by the UNAM Library and students during the COVID 19 lockdowns.

## **5.2 Discussion of findings**

### **5.2.1 How the Library provided information to students during the COVID19 lockdowns**

The findings reveal that the library informed its users on all the topics under investigation. Since viruses like COVID-19 thrive in an unclean environment and are easily transmitted from one person to another, it is essential to provide knowledge on hygiene. This is why the library is working to raise public awareness of the need to stop the virus's spread. Students' continued research would have benefited from the availability of electronic resources and database connectivity, which would also have kept them up to date on global events during the COVID-19 pandemic.

The conclusions are consistent with the work being done by libraries and organizations in other fields. For instance, Elsevier Library Connect, UNESCO, and the National Library of Medicine have provided online access to information resources and avenues to assist researchers in their ongoing research on COVID-19. The main motivations for building a library are to provide access to and disseminate trustworthy and current information resources. As a result, libraries have continued to provide informational resources in print and electronic versions throughout the COVID-19 pandemic.

### **5.2.2 The types of information materials and sources that libraries provided to their patrons during the COVID-19 pandemic**

The findings show that throughout the COVID-19 timeframe pandemic lockdowns, pupils were not given access to print materials. This case study illustrates how COVID-19 has a detrimental effect on library services. Lockdown and the restriction of access to public spaces like libraries

during the pandemic made it impossible for libraries to offer print publications to patrons. According to Parikh et al. (2020), 70% of the students and 53% of the faculty in their study preferred reading print books during the COVID-19 pandemic, so the inability of libraries to provide print books during that time may have had an impact on UNAM students' reading, learning, and research activities.

The findings show that the UNAM Library quickly adapted to electronic resources including e-books, e-journals, and databases, as well as to providing newspaper clippings to students during lockdown and the COVID-19 pandemic. If e-resources had been made available during COVID-19, it would have been much easier to reach those who couldn't physically access libraries and their resources.

### **5.2.3 The media/tools that the library used to provide information to students during the COVID-19 pandemic**

The UNAM Library used a variety of methods and media to provide information to clients who couldn't use the actual library's services. These mechanisms included Ask a Librarian, FAQs, blogs, online public access catalogues, professional platforms, websites, mobile technology, radio, television, print media, social media, WhatsApp, emails and repositories. The findings corroborate Ishtiaq et al.'s (2020) study, which reveals the use of similar tools for the provision of information to library patrons during the COVID-19 era. The findings further show that the pandemic has allowed the UNAM Library to adopt media for the provision of access to information. It is important to state that media may have provided an opportunity for the library to provide access to information services to a wider audience during the COVID-19 pandemic.

This result is consistent with Omeluzor and Oyovwe Tinuoye's (2017) study, which demonstrates how ICT tools like Ask a Librarian, emails, online public access catalogues, blogs, Twitter, and Facebook are used in university libraries in the south-west region of Nigeria to provide access to information on current awareness and SDI services. Similar to this, Hinchliffe and Wolff Eisenberg (2020) admit that academic libraries in the USA use both print materials and technologies to give users access to information about the COVID-19 pandemic. The results are representative of what libraries all over the world do. For instance, among others, the libraries at the University of the Pacific (2020) and the University of Adelaide (2020) transitioned to remote operations and made online resources and online services (digital documents and repositories) accessible through their library websites.

#### **5.2.4 Challenges facing the provision of information during the COVID19 pandemic lockdowns**

The findings show the obstacles that made it difficult to provide information during the COVID-19 epidemic. They demonstrate how the UNAM Library got off to a sluggish start as a result of the mismanagement of its activities. The abrupt lockdown and COVID-19 outbreak had an impact on the library's ability to provide information to students because it was unprepared and lacked the necessary infrastructure. Additionally, the UNAM Library could not have had the staff or resources to use ICT tools, therefore they were unable to have head start. There are challenges inhibiting the provision of optimal service by librarians. According to Ugwu and Onyegiri (2013) in their study attributed challenges of e-information service to poor funding, lack of policy for e-resources and lack of ICT skills by staff and users of the library and recommended more budget to the library, there should be e-resources policy like we have collection development policy separate from

general policy of the library. ICT infrastructure be improved, creation of institutional repositories by libraries, few libraries have adopted the idea of having institutional repositories in Africa. In most of the countries that make up the Africa continent such as South Africa, Kenya, Ghana, Togo, and Nigeria and that issue of institutional repositories are not well explored. The delivery of subpar services, the duplication of efforts, the loss of time and money, the strain on librarians, and delays in providing students with access to information are all possible outcomes of an uncoordinated library program. In order to accomplish library goals and provide top-notch services to students, there must be proper coordination of library activities. The findings also demonstrate that the COVID-19 epidemic, which caused the closure of all tertiary institutions in Namibia, was the main factor affecting students' access to information. The main event, COVID-19, prevented librarians from entering the UNAM Library, which made it difficult for students to receive information and services. The closure of libraries due to COVID-19 did not affect UNAM students alone, the American Library Association recommended that public libraries should close their doors amid the COVID-19 pandemic (Pearson, 2020). The findings reveal the challenges of limited contact with students. The COVID-19 era resulted in an increase in skeleton services, online services and the use of several platforms for the provision of access to information, thereby reducing the usual one-on-one service provision. The findings show that there was no provision for data subscription for librarians to provide information. According to one of the responders, who admitted to using his personal mobile phone and subscription to give library students access to material, some librarians utilized their personal mobile phones and data to distribute information to students. To be able to give students access to information while they are at home using a mobile device, librarians would need to have a subscription. If they don't, it could be difficult to supply information to library users during emergencies like the COVID-19 epidemic. Due to the fact that

less than half of the study's respondents were affected by the physical closure of libraries and insufficient power supply, the data showed less of a problem. They could be seen as less of a threat to the delivery of information access in the COVID-19 era because library was closed during the shutdown. Therefore, it is impossible to discuss both the electrical grid and Internet connectivity. The obstacles that the respondents typically faced on a regular basis that interfered with providing information during a typical workday may have been expressed by the respondents.

### **5.3 Summary of findings**

The findings from the study may be summarized as follows:

#### **5.3.1 How the Library provided information to students during the COVID19 lockdowns**

During the COVID-19 lockdowns, the UNAM Library distributed information via social media such as Facebook, Twitter and Instagram, as well as posters and leaflets about ways to stop the spread of COVID-19, government decisions, and personal hygiene (hand washing, keeping surfaces clean, and using hand sanitizers).

#### **5.3.2 The types of information materials and sources that libraries provided to their patrons during the COVID-19 pandemic**

Students were engaged by the UNAM Library by giving them access to electronic resources and newspaper clippings to aid in their ongoing research.

### **5.3.3 The media/tools that the library used to provide information to students during the COVID-19 pandemic**

The UNAM Library has embraced ICT tools, media, and expert platforms to give students access to information. These media tools are: Ask a Librarian, FAQs, blogs, online public access catalogues, professional platforms, websites, mobile technology, radio, television, print media, social media, WhatsApp, emails and repositories.

### **5.3.4. Challenges facing the provision of information during the COVID19 pandemic lockdowns**

The research reveals numerous significant barriers that prevented students from accessing material during the COVID-19 lockdowns, which library management teams should take into account to prevent them in the future.

## **5.7 Conclusions**

This section shows if objectives were met. It is arranged according to the objectives.

### **5.7.1 To find out how the UNAM library provided access to information resource to students during the COVID 19 lockdowns**

UNAM Library distributed information via social media such as Facebook, Twitter and Instagram as well as posters and leaflets.

### **5.7.2 To investigate the type of information materials and sources that UNAM library provided to the students during the COVID 19 lockdowns**

Students were engaged by the UNAM Library by giving them access to electronic resources and newspaper clippings to aid in their ongoing research.

### **5.7.3 To determine the media and tools that the library used to provide information to students during the COVID 19 lockdowns**

The UNAM Library has embraced ICT tools, media, and expert platforms to give students access to information. In the UNAM Library during the COVID19 Lockdowns, the study reveals the adoption and usage of media such as A library blog, A library website, Online Public Access Catalogues and instruments for information access and dissemination to library users. It is clear that libraries have used effective ICT technologies and electronic resources to support their user populations during COVID19. These initiatives made it possible for clients to regularly access information sources and services to satisfy their information demands.

### **5.7.4 To identify the challenges faced in the provision and access to information by the UNAM Library and students during the COVID 19 lockdowns**

The research reveals numerous significant barriers that prevented students from accessing material during the COVID-19 lockdowns, which library management teams should take into account to prevent them in the future. These challenges were Internet Connectivity Downtime, Inadequate Power Supply, Physical Library Closure, Lack of Data subscription for librarians, Limited contact with Students and Poor Coordination of activities.



## **5.8 Recommendations**

One of the objectives of the study was “To suggest solutions on the challenges faced in the provision and access to information”.

**In light of the findings, the researcher makes the following recommendations:**

1. The UNAM Library needs to revise its current procedures for responding to patrons' informational demands during emergencies. The management of the library should put together a team to develop a crisis management plan that would keep patrons' services running smoothly in the event of a pandemic.
2. The library's ICT units should be developed with competent staff, sufficient internet connections, and amenities that will improve the distribution of information to patrons in partnership with university management.
3. The adoption of sustainable information technology tools, including as blogs, repositories, and professional networks like LinkedIn, ResearchGate, and Academia.edu for the delivery of online material, should be ensured by the library's ICT divisions.
4. The management of the library should give enough data subscriptions for the librarians to improve the availability of information to customers via mobile phones at all times.

## **5.9 Areas for further research**

This study has identified areas where further research is warranted to continue expanding knowledge about access and provision of information of library resources and services. Several of these depend on greater availability of ICT and media tools of the library and the clients. Such areas include the following:

1. A more comprehensive investigation of the procedures and strategies to be used in responding to user's information demands during emergencies like the COVID19 Lockdowns.
2. Continued study of the types of ICT tools that the library should use to reach out and communicate to every library user to ensure information access and provision.

### **5.10 Final Conclusion**

The UNAM Library responded to COVID 19 lockdowns with a variety of strategies to ensure that students had access to information. However, the challenges observed show that there is room for improvement so that the Library is better prepared for future pandemics.

## REFERENCES

- Adarkwah, M. A. 2021. I'm not against online teaching, but what about us?: ICT in Ghana post Covid-19. *Education and Information Technologies*, 26(2): 1665-1685.
- Ali, MY, Gatiti, P (2020) The COVID-19 (coronavirus) pandemic: Reflections on the roles of librarians and information professionals. *Health Information and Libraries Journal* 37(2): 158–162.
- Asif, M., & Singh, K. K. (2020). *Trends, opportunities and scope of libraries during Covid-19 pandemic*. *Ijlist*. <https://doi.org/10.18231/j.ijlsit>
- Babbie, E. (2013). *The practice of social research*. (13th ed.). Wadsworth, OH: Cengage Learning.
- Birkett, A. (2019). *Survey response scales: How to choose the right one*. Retrieved from <https://conversionxl.com/blog/survey-response-scales/>
- Bless, C. & Higson-Smith, C. (2000). *Fundamentals of social research: An African perspective*. (3rd ed.). Cape Town, South Africa: Juta.
- Bryman, A. & Bell, E. (2015). *Business research methods*. Oxford, England: Oxford University Press.
- Creswell, J.W. (2014). *Research design: Qualitative, quantitative, and mixed methods Approaches. International students edition*. Los Angeles, CA: Sage Publications.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). *Comparison of convenience sampling and*

*purposive sampling*. American Journal of Theoretical and Applied Statistics, 5, 1-4.

<https://doi.org/10.11648/j.ajtas.20160501.11>

Fincham, J.E. (2008) Response rates and responsiveness for surveys, standards, and the journal. American Journal for Pharmaceutical Education. 72(43), 43. doi: 10.5688/aj720243

Garaba, F. (2010). An investigation into the management of the records and archives of former liberation movements in East and Southern Africa held by National and Private Archival Institutions. (*Doctoral dissertation*) University of KwaZulu-Natal: Pietermaritzburg, South Africa. Retrieved from [https://ukzn-dspace.ukzn.ac.za/bitstream/handle/10413/1495/Garaba\\_Francis\\_2010.pdf?sequence=%201&isAllowed=y](https://ukzn-dspace.ukzn.ac.za/bitstream/handle/10413/1495/Garaba_Francis_2010.pdf?sequence=%201&isAllowed=y)

González-Padilla, D.A., Tortolero-Blanco, L. (2020). Social media influence in the COVID-19 pandemic. *International Brazilian Journal of Urology* 46(1): 120–124. DOI: 10.1590/S1677-5538.IBJU.2020.S121.

Gustafsson, J. (2017). *Single case studies vs. multiple case studies: A comparative study*. Retrieved from <http://hh.diva-portal.org/smash/get/diva2:1064378/FULLTEXT01.pdf>

Hernon, P., & Schwartz, C. (2009). Reliability and validity. *Library & Information Science Research*, 31, 73–74. doi:10.1016/j.lisr.2009.03.001

Hinchliffe, L. J., Wolff-Eisenberg, C.W. (2020). Academic library response to COVID19: *The first 24 hours of survey data*. Available at: <https://sr.ithaka.org/blog/academic-library-response-to-covid19/>

Ishtiaq, S., Sehar, N., & Shahid, A. (2020). Information Dissemination during Covid-19 and

- Lockdown: *The Role of University libraries of Sindh, Pakistan. Library Philosophy and Practice (E-Journal)*. <https://digitalcommons.unl.edu/libphilprac/4280>
- Kapasia, N., Paul, P., Roy, A., Saha, J., Zaveri, A., Mallick, R., Barman, B., Das, P. & Chouhan, P. (2020). Impact of lockdown on learning status of undergraduate and postgraduate students during COVID-19 pandemic in West Bengal, India. *Children and Youth Services Review*, 116, 105194. <https://doi.org/10.1016/j.chilyouth.2020.105194>
- Kumar, R. (2011). *Research methodology a step-by-step guide for beginners*. (3rd ed.). New Dehli, India: Sage Publications.
- Lande, DV, Barkova, OV (2013) An electronic library as an environment of adaptive aggregation of information. *The Library Bulletin* 2: 12–17.
- Neuman, L.W. (2011). *Social research methods: Qualitative and quantitative approaches* (7th ed). London, United Kingdom: Pearson.
- Ngulube, P. (2003). *Preservation and access to public records and archives in South Africa*. (Doctoral dissertation). University of KwaZulu-Natal, Pietermaritzburg, South Africa.  
Retrieved from <http://www.hs.unp.ac.za>
- Omeluzor, SU, Oyovwe-Tinuoye, GO (2017) Assessment of information and communication technology for selective dissemination of information and current awareness services: A case study of university libraries in the south-west zone of Nigeria. *Evidence Based Library Information Practice* 12(4): 233–249.

- Parikh K, Vyas P and Parikh SS (2020) A survey on reading habit of library users during COVID-19 lockdown. *Library Philosophy and Practice (e-journal)*: Article 4216. Available at: <http://digitalcommons.unl.edu/libphilprac/4216>.
- Pearson, J. (2020). *Covid-19's impact on libraries goes beyond books*. Available at: <https://www.wired.com/story/covid-19-libraries-impact-goes-beyond-books/>
- Rafiq, M., Batool, S. H., Ali, A. F., & Ullah, M. (2021). University libraries response to COVID-19 pandemic: A developing country perspective. *The Journal of Academic Librarianship*, 47(1), 102280. <https://doi.org/10.1016/j.acalib.2020.102280>
- Rajasekar, S., Philominathan, P. & Chinnathambi, V. (2013). *Research methodology*. Retrieved from <https://arxiv.org/pdf/physics/0601009.pdf>
- Shonhe, L. (2017) *A literature review of information dissemination techniques in the 21st century era*. *Library Philosophy and Practice (e-journal)*: Article 1731. Available at: <https://digitalcommons.unl.edu/libphilprac/1731>
- Schuelka, M.J., Braun, A.M. & Johnstone, C.J. (2020, January). Beyond access and barriers: Inclusive education and systems change. In *FIRE: Forum for International Research in Education*, 6(1). <https://doi.org/10.32865/fire202061198>
- Suzanne R. Kirschner, (2015). *Inclusive Education*. College of the Holy Cross, Worcester, MA
- Tait, E. Martzoukou, K. Reid, P. (2016). Libraries for the future: the role of IT utilities in the transformation of academic libraries. *Palgrave Communications* 2(1): 1–9.
- Tashakkori, A., & Teddlie, C. (2010). *Mixed methodology: Combining qualitative and*

*quantitative approaches*. Thousand Oaks, CA: Sage Publications.

Taylor & Francis (2014). Group Use of social media by the library: *Current practices and future opportunities*. A White Paper from Taylor & Francis

Ugwu, C. I. & Onyegiri, D. C. (2013). Management problems of electronic information resources: A case study of UNN Library. *International Journal of Library and Information Science*. 5. 126-133.

UNESCO-IBE (2016). Reaching out to all learners: A resource pack for supporting inclusive education. Geneva: UNESCOIBE.  
<http://unesdoc.unesco.org/images/0024/002432/243279e.pdf>

University of Adelaide (2020) University Library response to COVID-19. Available at:  
<https://www.adelaide.edu.au/library/university-library-response-to-covid-19>.

University of the Pacific (2020) Library response to COVID-19. Available at:  
<https://www.pacific.edu/university-libraries/library-response-to-covid-19.html>.

Uzohue, CE, Yaya, JA (2016) *Provision of current awareness services and selective dissemination of information by medical librarians in technological era*. American Journal of Information Science and Computer Engineering 2(2): 8–14.

Yin, R. K. (2014). *Qualitative research from start to finish*. (2nd ed.). New York, NY: The Guilford Press.

## **APPENDIX A: INFORMED CONSENT FORM**

Title of Research Project: “Investigating Access to information by the University of Namibia (UNAM) Students during the COVID19 Pandemic Lockdowns”

Researcher: Clara Nangula Mufungulwa

201708950

0813434305

[claranangula22@gmail.com](mailto:claranangula22@gmail.com)

Supervisor: Prof. C. T. Nengomasha

University of Namibia, Department of Information and Communication Studies

Tel: 061 206 3641

[cnengomasha@unam.na](mailto:cnengomasha@unam.na)

### **Information**

This research aims to investigate access to information by the University of Namibia (UNAM) Students during the COVID19 pandemic lockdowns. 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 of Namibia Library on how to best provide information access to students during further COVID19 lockdowns. It may identify challenges and



solutions, as well as come up with recommendations on how to provide information access to students.

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	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

Signature

---

Date

---

## **APPENDIX B: QUESTIONNAIRE FOR THE STUDENTS**

### **INVESTIGATING ACCESS TO INFORMATION BY THE “UNIVERSITY OF NAMIBIA (“ UNAM”)” STUDENTS DURING THE COVID 19 PANDEMIC LOCKDOWNS**

My name is Clara Mufungulwa; I am a Degree student in Library and Information Science at the University of Namibia. I am carrying a study for my research report entitled: Investigating Access to information by the University of Namibia (UNAM) Students during the COVID19 Pandemic Lockdowns.

I am carrying out a survey involving students from the UNAM Library. Please be assured that all the information gathered during the research will be confidential and will only be used for the purpose of this research. Kindly answer all questions as honestly as possible. I thank you for taking your time to answer these questions.

#### **1. Demographical Information**

Which age group do you fall in? Please indicate with a tick in the appropriate box.

| 18 – 24

| 25 – 31

| 31 and above

#### **1. Sex**

| Male

| Female

**Qualification and year of study. Please tick.**

Qualification	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year
Masters in LIS				
B.A LIS				
Diploma LIM				

**1. How the library provide information to students during the COVID-19 pandemic. Please tick.**

Statement	Yes	No
The library provided information on personal hygiene (hand-washing, cleanliness and use of hand sanitizers).		
The library supported the provision of electronic information resources to patrons during the COVID-19 pandemic.		
The library provided information using flyers, posters and handbills to sensitize the general public to the prevention and control of the COVID-19 pandemic.		
The library shared awareness information in other areas of research interest with registered students.		
The library provided information to students on the symptoms of COVID-19.		

The library provided information on how to curb the spread of COVID-19.		
The library provided information on how to curb the spread of COVID-19.		
The library provided flyers about government decisions on the treatment of COVID-19		
The library shared links with its patrons to access online information in all areas of study.		
The library provided information to support users in their ongoing research.		
The library sent out information on how to access help for people with COVID-19.		

**1. Types of information materials and sources disseminated by libraries to patrons during the COVID-19 pandemic**

<b>Statement</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Strongly disagree</b>	<b>Disagree</b>
The library provided print materials to students during the COVID-19 pandemic.				
The library provided e-books and e-journals to students during the COVID-19 pandemic.				
The library provided access to online databases.				

The library provided newspaper cuttings and new arrivals to students during the COVID-19 pandemic.				
--	--	--	--	--

**1. The media/tools used by library to provide information to students during the COVID-19 pandemic**

<b>Media/tools</b>	<b>Yes</b>	<b>No</b>
Ask a Librarian		
Frequently Asked Questions (FAQs)		
A library blog		
A library website		
Online public access catalogues		
Professional platforms, such as LinkedIn, ResearchGate, Mendeley, ORCID, Academia.edu, Kudos and Research Square		
Mobile technology and mobile library services		
Print media such as newspapers and magazines		
Audiovisual media such as radio and television		
Social media such as Facebook, Twitter and Instagram		
WhatsApp		
Email		
Repositories		

**1. Kind of services provided during COVID 19 pandemic lockdowns**

<b>Services</b>	<b>Yes</b>	<b>No</b>
Mobile application services		
Live chat		
Social sites		
Email management		
VPN access		

**1. Challenges facing the provision of information during the COVID19 pandemic lockdowns**

<b>Challenges</b>	<b>Most</b>	<b>Least</b>
Internet Connectivity Downtime		
Inadequate Power Supply		
Physical Library Closure		
Lack of Data subscription for librarians		
Limited contact with Students		
Poor Coordination of activities		

**1. Suggest solutions to Challenges**

.....

.....

.....

## **APPENDIX C: INTERVIEW GUIDE FOR LIBRARIANS**

Research title: Investigating Access to information by the University of Namibia (UNAM)

Students during the COVID19 Pandemic Lockdowns.

### **General Information**

1. What is your position at this Library?
2. For how long have you been in this position?
3. What is your highest qualification?

### **SECTION A: How UNAM Library provided access to information to students during the**

#### **COVID19 lockdowns**

1. How did the Library provide access to information on personal hygiene (hand-washing, cleanliness and use of hand sanitizers)?
2. How did the Library provide information resources to students during the COVID-19 lockdowns?
3. How did the Library support students in their ongoing research?

### **SECTION B: The types of information materials and resources that the UNAM Library provided to the students during COVID19 lockdowns**

1. What type of print materials did the Library provide to students during the COVID-19 lockdowns?



2. What type of electronic materials did the Library provide to students during the COVID- 19 lockdowns?

3. Did the Library provide access to online databases? Give examples.

**SECTION C: The media tools that the Library used to provide information to students during COVID19 lockdowns**

1. What media tools did the Library use to provide access to information to students?

2. Did the Library use mobile technology and if it did how was it used?

3. What type of print media did the Library use to provide information to students during the COVID-19 lockdowns and how was it used?

4. What type of audiovisual media did the Library use to provide access to information access to students during the COVID-19 lockdowns and how was it used?

5. What type of social media platforms did the Library use to provide information access to students during the COVID-19 lockdowns and how were they used?

**SECTION D: The challenges faced in the provision and access to information by the UNAM Library and students during the COVID19 lockdowns**

1. Which services were the Library not able to provide during the COVID-19 lockdowns?

2. Why was the Library not able to provide the services highlighted in your response to question

1.

3. Explain the challenges if any that the Library faced in the provision of access to information during COVID19 lockdowns?

4. What challenges did students face in accessing information during the COVID19 lockdowns?

SECTION E: Suggest solutions on the challenges.

1. What solutions would you suggest to the Library regarding the challenges which you highlighted above?

2. Do you have anything else which you would like to add regarding this interview?

**Thank you for your time.**