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IMPLEMENTING INSTITUTIONAL POLICIES FOR PERSONS LIVING WITH DISABILITIES IN ACCESSING INFORMATION RESOURCES AT DEDAN KIMATHI UNIVERSITY OF TECHNOLOGY LIBRARY

LUVALE, BEATRICE NASIMIYU

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Science in Partial Fulfillment of the Degree of Master of Library and
Information Science

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DECLARATION

I the undersigned, declare that this is my original work and has not been submitted to any other university for the award of degree or any other award.

Signature

Beatrice Nasimiyu Luvale C54/86168/2016

This research project has been submitted with our approval as university supervisors.

Signature Signature

Date: 4th Nov. 2021

Dr. Dorothy Njiraine

Department of Library and Information Science

University of Nairobi

Signature

Date: 4th November, 2021

Date: 3/11/2021

Dr. Grace Irura

Department of Library and Information Science

Gestung

University of Nairobi

DEDICATION

My parents Mr. and Mrs. Luvale, Dr. Isaac and Dr. Sarah Mwanzo and my lovely children Jesse, Jerome and Respah.

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TABLE OF CONTENTS

DECLARATION	ii
TABLE OF CONTENTS	iv
LIST OF TABLES	xi
LIST OF FIGURES	xii
LIST OF ABBREVIATION AND ACRONYMS	xiii
CHAPTER ONE	1
1.1 Introduction	1
1.2 Background to the study	1
1.3 Access to information and knowledge for persons with disabilities	2
1.4 Statement of the Research Problem	3
1.5 Aim of the study	7
1.6 Objectives	7
1.7 Research questions	7
1.8 Assumptions of the study	8
1.9 Justification of the study	8
1.10 Significance of the study	8
1.11 Scope and limitations of the study	9
1.12 Definition of terms and concepts	9
CHAPTER TWO	12
LITERATURE REVIEW	12
2.0 Introduction	12
2.1 Establishing Policies	12
2.2 Creating Awareness	15
2.3 Resources for Information Access	16
2.4 Strategies of Policy Implementation for information access for PWDs	20
CHAPTER THREE	24
RESEARCH METHODOLOGY	24
3.1 Introduction	24
3.2 Area of Study	24
3.3 Research Design	24

3.4 Population	25
3.5 Sampling strategies and techniques	27
3.6 Data Collection Methods	29
3.7 Research Instruments	30
3.8 Data Collection Procedures	31
3.9 Data Analysis and Interpretation Procedures	31
3.10 Ethical Considerations	32
CHAPTER FOUR	34
DATA PRESENTATION, INTERPRETATION, AND DISCUSSION	34
4.1 Introduction	34
4.2 Demographic Information	35
4.3 Disability Mainstreaming Functions and Activities at DeKUT	35
4.4 Library Staff Awareness, Training and Service Provision	41
4.5 Information Resource Access for Persons with Disabilities	46
CHAPTER FIVE	53
SUMMARY, CONCLUSION AND RECOMMENDATIONS	53
5.1 Introduction	53
3.1 muoddetion	
5.2 Summary of the of the Findings	
	53
5.2 Summary of the of the Findings	53 58
5.2 Summary of the of the Findings.5.3 Conclusion	
5.2 Summary of the of the Findings.5.3 Conclusion5.4 Recommendations	
5.2 Summary of the of the Findings	
5.2 Summary of the of the Findings	
5.2 Summary of the of the Findings	
5.2 Summary of the of the Findings	
5.2 Summary of the of the Findings	
5.2 Summary of the of the Findings	
5.2 Summary of the of the Findings	

ABSTRACT

The aim of this study was to evaluate the implementation strategies and institutional policies that guide information provision and access for persons living with disabilities at Dedan Kimathi University of Technology library. The objectives of the study were to examine the existing policies, determine the level of awareness of library staff on provision of services to persons with disabilities, assess availability of information resources for persons living with disabilities and recommend policy implementation strategies for information access. The research utilized both quantitative and qualitative survey research design with qualitative taking a big part of the study. The study targeted a population of 57 respondents, 23 were persons with disabilities both students and staff at DeKUT, 12 disability mainstreaming committee members, and 22 library staff members. Census and non-probability sampling strategies were used to select the sample size. Purposive sampling technique was used to select the population sample needed for the study. Data and information were collected using questionnaires and document analysis. Descriptive statistics, such as frequencies and percentages, were used to examine the acquired data. The data was compiled using the Statistical Package for Social Sciences (SPSS). The emergent primary themes in qualitative data were identified through content and narrative analysis. The study revealed that Dedan Kimathi University has made significant progress in addressing the learning welfare of students with disabilities. The university had laid policy promotion strategies that propagated full realization of the human rights. These includes taking measures to protect, promote and fulfill their rights in diverse areas such as equal recognition in learning process, participation in university actives such as student's leadership and appointments and that the existing policies were fairly effective in address information access for persons living with disabilities. In view of raising awareness, the university management has

recognized formation of students and staff associations, the university recognized disability mentoring day, and organized training workshops and public lectures. The study concludes that management on Dedan Kimathi University had made significant steps in ensuring availability of information access resources for persons with disabilities, however the University library did not offer specialized searches on online resources. The library lacks proper furniture that caters for physically challenged, the library is not fully prepared to offer e-resources to visually impaired students, there are no special rooms and customized information access to those with disabilities, sign language interpreter was also lacking and that the library did not have devices that could assist persons living with disability. In order to promote effective service provision, access to information and knowledge for persons with disabilities at Dedan Kimathi University, the following measures must be implemented. The present policy should be reviewed in order to optimize the contributions of disabled employees and students, make it easier for PWDs to use university facilities and services especially in accessing information resources and ensure that PWDs' requirements are met in the discharge of human resource functions and management in work and studies. The university should ensure that a well-equipped resource center is established to meet the demands of PWDs.

LIST OF TABLES

Table 3.1: Sample Frame.	21
Table 3.2: Sample Size.	23
Table 4.1: Response rate	34
Table 4.2: Demographic Information	35
Table 4.3: Policies put in place to guide in the disability mainstreaming	36
Table 4.4: Strategies used in disability mainstreaming activities	37
Table 4.5: Staff Awareness Training on Persons Living with Disabilities	38
Table 4.6: Attitudes and legal issues concerning non-discrimination of PWDs	42
Table 4.7: Awareness of persons with disabilities in the university	44
Table 4.8: Involvement of Persons with Disabilities in Library Planning Process	45
Table 4.9: Level of preparedness in offering information support to PLWD	46
Table 4.10: Library services	47
Table 4.11: Frequency in Seeking Information from the University	49
Table 4.12: Statement Assessing on Library Services	49
Table 4.13: Library infrastructure	51

LIST OF FIGURES

Figure 2.1: Conceptual Framework of the Study	19
Figure 4.1 Awareness Activities	39
Figure 4.2: Budget Allocation	40
Figure 4.4: Level of interaction	41
	45

LIST OF ABBREVIATION AND ACRONYMS

CRPD Convention on the Rights of Persons with Disabilities

DeKUT Dedan Kimathi University of Technology

EAC East African Community

ICESCR International Covenant on Economic and Social Cultural Rights

KNCHR Kenya National Commission on Human1Rights

NCAPD National Coordinating Agency for Population and Development

NCPWD National Council for Persons with Disabilities

PWDS Persons with Disabilities

UDPK United Disabled Persons of Kenya

UN DESA UN Department of Economic and Social Affairs

UPIAS Union of the Physically Impaired Against Segregation

WHO World Health Organization

CHAPTER ONE

1.1 Introduction

This chapter provides an outline of the proposal's content and organization. The chapter outlines the background of the study, sets out the aim and objectives of the study, significance of the study, the research questions and assumptions made in the study.

1.2 Background to the study

The World Health Organization [WHO] (2011:28) defines disability as an umbrella term encompassing impairment, activity limits, and participation restrictions that relate to the negative aspects of the connection between an individual (with a health condition) and their contextual circumstances (environmental and personal factors). Thus, disability is more than just a medical problem; it is a multilayered phenomenon that represents the interaction between a person's body and the society in which he or she lives.

There has been a worldwide increase in recognition of Persons with Disabilities (PWDs) and emphasis on integrating them in the society on the basis of their capabilities. Various governments have also enacted legislations to guide in mainstreaming and ensuring equality and inclusion of their needs, rights and requirements. The Persons with Disabilities Bill was passed in Kenya in December 2003 and was gazetted for implementation in June 2004. The Act's goals

are to establish the National Council for Persons with Disabilities, to protect and promote the rights and rehabilitation of PWDs, and to address issues related to the first two goals.

Various groups have also been formed to promote the human rights of people persons living with disabilities via full participation, equal opportunity, and development. National Council for Persons with Disabilities (NCPWD) and United Disabled Persons of Kenya are two of them (UDPK).

According to the National Coordinating Agency for Population and Development [NCAPD], (2013:22) report an estimated 10% of the world population represents persons with disabilities which translate to about 650 million people. Out of these, 80% live in developing countries. The same report (2008:17) report states that, 4.6% of Kenyans, which translate to 1.7million Kenyans experience some form of disability.

1.3 Access to information and knowledge for persons with disabilities

According to Yoon, Hulscher, and Dols (2016:1), access to information is an essential premise in library and information science, as well as a basic human right required for equal opportunity and full involvement in society. This is achievable through involving all partisan in the initial planning and implementation of library facilities and resources. Pionke (2017:1) points out that in the broader literature on libraries and persons with disabilities, people with disabilities are rarely questioned for their opinions on their library experiences.

People with impairments, according to Lawal-Solarin (2012:3), require knowledge for a variety of reasons. Information for educational purposes, information for social and personal development, information about assistive devices that may improve mobility, and information for recreational purposes are just a few examples.

In the library, assistive technology can be as simple as a wheelchair or magnifying glass, or as complex as a computer workstation with software that allows users with disabilities to scan a book and hear it read aloud while also seeing highlighted text on a display screen. The use of a walker or wheelchair to get around the library is an example of assistive technology.

Assistive technologies in libraries include screen reading software, magnifiers, JAWS, and Dragon Naturally Speaking (Oyelude, 2017:2).

According to Atkinson and Castro (2008:4), accessible technology serves a variety of purposes, including removing obstacles and making the world more accessible for persons with disabilities by increasing their access to information, communication, and independence.

1.3.1 Challenges Faced by People with Disabilities

People living with disabilities face numerous challenges which are both environmentally and socially instigated. Environmental factors affecting PWDs include products and technology, natural and built environments, support and relationships, attitudes, services, systems, and policies (WHO 2016:30). PWDs are frequently ostracized and endure problems around the world as a result of pervasive social, cultural, and economic prejudices, stigmatization, and, in

some cases, abuse and violence, all of which lead to harsh experiences for people with disabilities.

Access to education and information is a major issue for PWDs globally. Education is a basic human right and a requirement for successful social, economic, and political integration. The right to education is recognized in both the 2010 Kenyan Constitution and the International Covenant on Economic, Social, and Cultural Rights (ICESCR).

According to the Kenya National Survey for Persons with Disabilities (KNSPD) (2008, p. 32), 67 percent of Kenyans with disabilities have completed primary education, 19 percent secondary, and only 2 percent university.

Children with impairments are less likely to begin school and are also less likely to stay in school and be promoted (UN Department of Economic and Social Affairs) (2016:75). Those who complete secondary school and go on to higher education institutions, on the other hand, find it difficult to cope with an education system that is inhospitable to them. Different approaches to delivering education for individuals with disabilities have been put in place around the world, according to the KNCHR (2014:7) report, including special, integrated, and inclusive schools. However, due to a lack of meaningful comparison, evidence of the impact of these models on educational results has been inconclusive.

According to Seyama et al. (2014:2), individuals with impairments who succeed in gaining admission to colleges encounter additional barriers that prohibit them from having full and equal access to academic programs available to other students. This is exacerbated by a lack of primary statutory backing for disabled students' rights.

Libraries at schools and colleges and universities are no longer considered solely as places to borrow books and provide reading space. Academic libraries help academic institutions in teaching, learning, and research operations by offering information and making information accessible to all members of the institution.

Libraries should go above and beyond just disseminating resources by ensuring that the information needs of a varied public are met and that information resources are accessible to everyone, including disabled learners.

1.4 Statement of the Problem

Over the last few decades, efforts to include people with disabilities in development initiatives have received attention. For instance, the International Human Rights Treaty that was created to protect the rights and dignity of persons with disabilities and adopted by the United Nations in 13th December 2006. Kenya is among the countries that are party to the convention and is required to protect, promote and ensure equality of human rights of persons with disabilities (CRPD, 2014:28). The Persons with Disabilities Act of 2003 was enacted as a result of Kenya's participation in the convention.

Kenyan institutions of higher learning like University of Nairobi, Kenyatta University, and Jomo Kenyatta University of Technology have formulated policies that serve as a guide in mainstreaming and implementing inclusivity of persons with disabilities. As these universities exercise throughout various stages of mainstream development programs, attention to the disability dimension, the main challenges faced include lack of finances and implementation framework. According to the KNCHR (2014:12), The Special Needs Education Policy should be expanded, and additional funding should be made available for it. In addition, a framework of implementation with more focus on inclusive education should be developed urgently and for capacity building, it was sent to schools and education departments.

Dedan Kimathi University of Technology (DeKUT) is a public university with its main campus in Nyeri and a branch campus in Nairobi. The university is currently carrying out mainstreaming workshops to create awareness and to sensitize the fraternity on issues that pertain to persons with disabilities. The first mainstreaming policy was formulated in 2010 and later revised in 2017. The DeKUT administration is committed to supporting and treating all students and employees equally. DeKUT is developing a framework to ensure a supportive environment for all university community members.

The university also established a disability mainstreaming committee to address the social, cultural, and economic disadvantages many disabled people face. Even though efforts are underway to integrate persons living with disabilities in policy development and awareness creation, there is need to include clearly stated information access procedures and mainly how assistive technologies will be used to ensure full participation of persons living with disabilities in accessing information.

Therefore, there is need for the library to be fully in touch with learners that are living with disabilities and ensure that all services are fully accessible to them. It is one thing for the library to provide information and another for that information to meet the need of users.

Having ramps and sanitary facilities in place for the persons with disabilities is not enough. The library needs to work in collaboration with the disability mainstreaming committee to provide assistive devices and other accessible technology necessary for learning and development of persons with disabilities.

The tremendous developments in communication and information technology and especially the Internet and the World Wide Web has led to an increase in the ability to access, store and process information within the library. According to Lewis (2013:2), today's people living with

disabilities have higher expectations for information services, we live in a time when we can meet those expectations because remarkable technological advances have enabled disabled people to access information on their own.

1.5 Aim of the study

The aim of this study was to explore information access for persons with disabilities through formulated policies at Dedan Kimathi University of Technology and consequently suggest suitable implementation strategies and institutional policies for effective service provision.

1.6 Objectives

Specific objectives of the study were to:

- Examine the effectiveness of existing policies that address information access for persons with disability.
- 2) Determine the level of awareness of the library staff on service to Persons with Disabilities.
- 3) Assess the availability of information access resources for Persons with Disabilities.
- 4) Propose implementation strategies for institutional policies of information access for persons living with disabilities.

1.7 Research questions

The research questions were:

- 1) What are the policies in place that serve as guide for information access for Persons with Disabilities at DeKUT?
- 2) How is staff awareness on PWDs and access to library information conducted?
- 3) What are the resources in place that can be used for accessing information by persons with disabilities?
- 4) What are the appropriate implementation strategies for institutional policies of information access for persons living with disability?

1.10 Significance of the study

The Convention requires States Parties to support accessibility in design and development, as well as the availability of new technologies, including ICT. In UN CRPD (2015), It cannot be overstated how important it is to remove obstacles and include disabled people in all aspects of development. This study will propose a strategic implementation plan that can be adopted by the library in information access for learners living with disability.

1.8 Assumptions of the study

The researcher assumed that DeKUT respondents are intellectually capable of giving informed responses and would cooperate in doing so. The second assumption made was that the responses given by the respondents were honest and objective.

1.9 Justification of the study

In order to support learning, teaching and research, DeKUT Library must provide competitive, adequate and relevant information. Following the realization of these objectives, the study will provide a basis for planning and implementation of information access and integration through the various strategies and mainstreaming framework. With the ongoing construction of the new library space facility, there is need for deliberate effort to address the issue of information access by persons with disabilities.

1.11 Scope of the study

The study was limited to DeKUT main campus and was conducted on persons with disabilities, that included learners and university staff. The study included learners living with disabilities, university staff with disabilities, library staff in charge of dispersing information, and the university disability mainstreaming committee. The focus was on exploring the various strategies that can be implemented and used in the institutional policies to achieve total integration in information access for persons with disabilities and service provision by library staff.

1.12 Limitations of the Study

The limiting factor that could hinder the study was locating all persons with disabilities and interpreting the questionnaire to those that had visual impairment.

1.13 Definition of terms and concepts

The terms and concepts have been defined based on the literature reviewed as follows:

Accessibility

The capacity to access the functioning and potential benefits of a system or entity, as well as the degree to which a product, such as a gadget, service, or environment, is accessible to as many people as feasible. The term "accessible design" refers to a notion that assures both direct and indirect access, or compatibility with a person's assistive technology.

Assistive technology systems

Other infrastructure and technologies, like ICT, that improve the effectiveness of assistive technology are also included.

Disability

Disabilities, activity limitations, and participation restrictions are negative aspects of a person's health condition and their surrounding circumstances (environmental and personal factors).

Disability mainstreaming

Inclusion of disabled people's concerns, needs, and experiences in the design, implementation, monitoring, and assessment of policies and programs.

Inclusion

People with disabilities can access and participate fully in an activity or service in the same way as other members of the community.

Persons with disabilities

Disabilities such as deafness or hard of hearing, albinism, or developmental abnormalities that prevent equal participation in society.

Policy

A set of principles that a government, party, corporation, or individual has accepted or proposed. It explains the "What and Why" of a particular course of action. For example, a policy could be based on the values of fairness, social justice, or entrepreneurship, and it could require equal access to specified services or penalize those who do not.

1.14 Chapter Summary

In this chapter, highlighted were the key concepts of disabilities and persons living with disabilities. The importance of information service provision to persons living with disabilities and the challenges faced in accessing information services as well as in offering those services were also discussed. The objectives of the study were identified and were used to guide in carrying out the entire research for the purpose of identifying recommendation for better service provision to Persons with disabilities at DeKUT library.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Various researchers have conducted studies on the subject of disability and related topics with an aim of bringing attention and general understanding to issues pertaining to Persons with Disabilities. In this chapter, findings on pertinent literature that correlates with the objectives of the study of various authors under the topics of policies, awareness creation, facilities and resources, and strategies for implementation plan of policies that will enable information access for Pwds, have been analyzed and discussed in depth.

2.1 Establishing Policies

Institutions must develop policies to guide their operations through planning, implementation, monitoring, and evaluation. A policy is required to help form regulations and directives that help implement procedures. The Commission on the Rights of Persons with Disabilities (CRPD) provides a legal foundation for the advancement of PWDs' rights as well as an enabling environment for disability mainstreaming from a rights viewpoint.

According to the International Disability and Development Consortium IDDC, the Millennium Development Goals were created to foster collaborative action to reduce poverty, improve health, and address educational and environmental concerns (2012:10). It is disappointing that

neither the core MDGs nor the related body of guidelines and policies reference people with disabilities.

The CRPD is recognized as the most important and international legal reference, according to the Austrian Development Cooperation (2016:5), because it is the first globally binding legal instrument that emphasizes basic criteria for the protection of rights for Persons with Disabilities. The CRPD also represents a paradigm change away from a medical approach that focuses on people' medical illnesses and toward an approach that considers the social dimensions and implications of disability.

Many national policies, according to the UN Global Affairs Report (2015), tend to apply a special-needs approach to accessibility, primarily establishing services specialized for persons with disabilities, rather than a general integrative approach, in order to provide equal opportunities for persons with disabilities. Creating integrated services that are accessible to everyone, regardless of disability, can help to increase inclusion and close gaps between services provided to people with disabilities and those available to the general public.

2.1.1 Policy Contents

To improve supply chain management, develop personal assistance schemes, develop accessibility standards and include anti-discrimination legislation, according to Shumba and Moodley (2018:7). According to Krahn, Walker, and Correa-De-Araujo, standardized disability identifiers will allow public health to compare health outcomes and differences across multiple data systems (2016:7). The increased scientific capability and innovation in the field of disability research should considerably improve our understanding of health outcomes, the causes of health inequities and disparities, and the efficacy of interventions.

2.1.2 Policy establishment for persons with disability in Kenya

The KNCHR (2014:2) study found that progress toward disability rights has been made, but at a slow pace due to various obstacles.

According to the report, Kenya's government has taken several legislative and policy steps to advance disabled people's rights through international instruments, including:

- Securing the first international legally binding treaty to protect disabled people's human rights by signing and ratifying the UN Convention on the Rights of Persons with Disabilities (CRPD) in 2008.
- ii. Signing and ratifying other human rights treaties, including the UN Convention on the Rights of the Child and the African Charter on Human and People's Rights.
- iii. Ensuring compliance with the CRPD and country-level recommendations outlined in the East African Disability Policy (2012).
- iv. An African Decade National Plan of Action has been adopted, together with a Coordination Office and a Steering Committee. A strategy has also been devised to

guarantee that disability is mainstreamed in all of the country's bilateral cooperation operations.

2.1.3 Assistive Technology Policies

Despite the complexity of assistive technology policies, MacLachlan et al. (2018:4) note that states that have ratified the CRPD must report to the CRPD Committee on how they plan to develop and implement them. The Convention's overall attitude toward assistive technology is ambiguous. Additionally, they found it necessary to evaluate policies, strategies, and action plans related to assistive technology on both a quantitative and qualitative basis to ensure fair access. Development of a national system for monitoring, supplying, and servicing assistive technology that meets people's ever-changing needs should be the goal of national assistive technology policy. College and university libraries have a significant impact on the educational possibilities available to its core users. Individual students, specific user groups, and the entire student body can be hampered or aided in their personal and intellectual growth by the rules, services, and collections that libraries create. Persons with Disabilities are a significant and growing minority of students who attend colleges and universities. Libraries may be models of service excellence to their campus communities and profession by reducing physical and psychological barriers (Remmy & Seaman, 2014:27).

2.2 Creating Awareness

Shumba & Moodley, (2018:7) in their study observe that there should be an awareness of the existence of different disability policies and legislation by all members of an institution and not only those that are actually involved in their implementation.

IDDC (2012:11) insist that although some regional frameworks do not imply a legal obligation country are still required to monitor their actions and report on them

Communication of strategies for mainstreaming disability in the workplace; forum for dialogue on mainstreaming disability related issues at the workplace; induction programs for new staff and every public officer assuming a managerial or supervisory role include a disability awareness session; service providers to be informed on strategies for mainstreaming disability with a view to encouraging participation Embracing knowledge and training on mainstreaming disability in the workplace, as well as collaboration with experts, learning institutions, and training institutions; Assisting PWDs in accessing employment opportunities from the Public Service Commission, the Kenya Labor Market Information System (KLMIS), and the National Council for Persons with Disabilities by ensuring all PWDs register for data maintenance (NCPWD).

Leake and Stodden (2012:416) argue for raising public awareness of disability issues by publishing research and advocacy pieces in non-disability publications. Libraries may improve services to people with disabilities and raise awareness among college students through a variety of outreach programs, such as events held during Disability Awareness Month. A panel discussion with students, professors, and staff on the spectrum, displaying library materials on autism, and screening documentaries could all be part of this month's activities.

27.14 (Remy & Seaman).

2.3 Resources for Information Access

Resources are intended to benefit society by affecting basic social concerns such as well-being, earnings, education, and health. By providing access by all, including users with disabilities, all

resources should be available in every way, excluding no individuals or groups from society. Products, equipment, services, and locations that can be utilized to access information are examples of information access resources. In addition to making printed materials accessible to disabled people, libraries should designate enough representatives to coordinate disabled people's services and ensure the availability and adequacy of assistive technologies resources. According to Babic and Dowling (2015:8), disabled students are happy with their support from family and friends. College administrators and coordinators must adjust structures, methods, and systems to allow students to learn normally.

Coordinators should provide additional support services for students with disabilities, such as an initial meeting, needs assessment, tracking, evaluation of prior experiences, and planning. To remove barriers to using library services, Phukubje & Ngoepe (2016:2) urge that academic libraries:

- i. Acquire print books for all disabilities and timely braille printing.
- ii. Books should be transcribed for disabled students. Create a well-thought-out training manual on how to use library services to make them more accessible. Instead of being delivered only during the orientation sessions, the training should be given on a quarterly basis. Each student with a disability should have one or two buddies participate in the training. When students with disabilities are unable to access the library for various reasons, the friends will be able to assist them.
- iii. During the collection creation and building planning processes, include representatives from students with disabilities; consider doing a user needs research for students with disabilities. This will enable the library to profile individuals and tailor services to their needs during their time at the institution;

- iv. Locate and identify resources for students with impairments. If such resources are not available in suitable forms, they may create them in-house for students with impairments;
- v. Increase staffing and service hours for students with disabilities; develop relationships with publishers to make mandated study materials available to students with disabilities. Staff at the library, especially sign language interpreters, should be trained to engage with persons with impairments.
- vi. Employees should be taught to be attentive to the requirements of handicapped individuals. Make use of assistive technological equipment that enables students with disabilities to do everyday tasks while studying. In this regard, the library can think about developing a website for visually impaired students that use a web page braille system.

2.3.1 Universal Building facilities

According to Infrastructures and Cities for Economic Development ICED, (2011:2) Well-planned infrastructure and accessible urban services are critical to releasing persons with disabilities' full potential. Effective infrastructure can reduce or remove the barriers which lead to disability by enabling full participation in society.

Pionke (2017:50) observes that good infrastructure and facilities including enough quiet places to study, lockers to secure belongings, good layout, adequate lighting and proper signage make accessibility of spaces and materials easy.

According to CRPD (2015:9) report, accessibility is not just a means of integration, making accessibility a reality entails removing physical obstacles that prohibit people with disabilities

from fully exercising their human rights, such as buildings, roads, housing, transit, information and communications, and other public facilities and services. Webb & Hoover (2015:2) propose universal design as a way of creating a barrier free access to library and information services and mobility of impaired patrons. They describe universal design as the creation of things, settings, programs, and services that are useable by all individuals to the maximum degree feasible, with no requirement for adaption or specialist design. Universal design settings and products may be used by children, young adults, the elderly, persons with "normal" skills, and those with impairments (temporary or permanent) (Pionke, 2017:57).

2.3.2 Use of Assistive Technologies Persons with disabilities

According to Sanaman & Kumar (2014:4), the digital era has led to many technological advancements that directly benefit the disabled community.

People with disabilities can utilize technology that might otherwise be inaccessible to them thanks to adaptive technology, and accessible technology serves to eliminate barriers and make the world more accessible for everyone.

- i. Electronic versions of learning resources are available.
- ii. Apps and online resources help learners with visual, hearing, and cognitive challenges to carry out studies.
- iii. On devices, assistive software and applications (such as touch navigation, magnification, text-to-speech, and voice recognition) may be installed.
- iv. Students with impairments may be given smart gadgets such as tablets as accommodations.

v. Lectures can be recorded and converted to an appropriate format or replayed at a later time to meet the needs of a learners.

2.4 Strategies of Policy Implementation for information access for PWDs

Various researchers have emphasized the need to have strong policy frameworks that are effectively implemented and frequently updated in order to have equity in information access. Policy implementation is a set of operations carried out by the government and other entities in order to fulfill the stated aims and objectives. It's a methodical approach to putting stated policy guidelines and plans into action. It is the stage in which a proposed course of action is actually experimented with, practiced, and demonstrated (Arop, Ewan & Ekpang, 2018:2)

In a study, Ireri et al. (2020) found that key stakeholders' bad attitudes toward integrated education policy and a lack of funds resulted in poor solutions for overcoming physical hurdles that impede the implementation of inclusive education. Their observations show that a lack of policies, a weak policy framework, and a lack of implementation strategies result in unmodified physical resources, irregular physical resource inspections, Learners with disabilities are unable to access essential portions of the school due to a lack of secure accessible school facilities and unmodified furnishings.

Legislation, laws, and policies, according to Raja (2016), are critical in improving the availability, acquisition, and use of accessible information, especially ICTs. Two of the three key hurdles to the use of ICT in integrated education, according to his poll, are a lack of policy implementation or effective implementation mechanisms and a lack of policies that support universal availability of accessible ICTs.

Raja (2016) lists a number of hard and soft mechanisms that can be used to establish a complete policy framework that improves ICT accessibility for people with impairments, including:

- i. Accessibility in licensing conditions and authorizations, as well as regulation.
- ii. Voluntary measures, such as codes of behavior, guidelines, and the formation of committees to oversee and promote implementation.
- iii. Creating technological standards to meet accessibility needs and encourage assistive technology interoperability.
- iv. Including in existing ICT legislation accessible ICT definitions and language.
- v. Quality of Service laws, requiring basic accessibility requirements in all public ICT services (G3ict & ITU 2014).

In the EAC policy on persons living with disabilities, Mathuni (2012), the EAC secretariat, offers the following policy implementation strategy:

- Disabled people's rights must be clearly established and safeguarded by suitable disability law.
- ii. All existing legislation must be reviewed to ensure that it is disability-friendly.
- iii. Research, documenting, and distribution of best practices and experiences by all actors at all levels in order to replicate and scale up interventions.
- iv. Engage in evidence-based lobbying and advocacy with all sectors and policymakers to understand and address the issues of PWDs.
- v. Increasing awareness of PWD problems, including women, children, youth, and senior concerns, among all stakeholders and policymakers via the media, reports, publications, and any other communication approach.

- vi. Including people with disabilities (PWDs) in all departmental policies and affirmative action programs
- vii. Capacity building, skill development, and social support networks to enable PWDs to engage in and contribute successfully to socioeconomic growth.
- viii. Improving all stakeholders' networking, partnerships, connections, and collaboration.

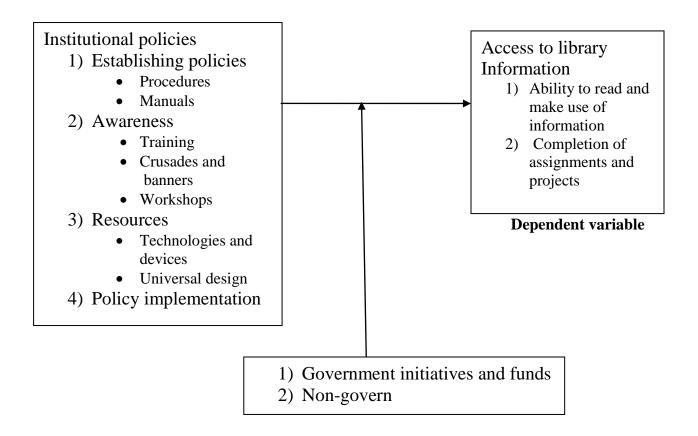


Figure 2.3 Conceptual Framework

2.5 Chapter Summary

From the chapter it is revealed that previous authors have carried out studies on information access for persons living with disabilities in different environments. Information is seen as an important ingredient in the overall growth and development of the human being from child hood to adult hood. Education is a basic human right and libraries should ensure that full access to information for persons living with disabilities is achieved. Studies done by various researchers have proved that this is achievable through utilization of assistive technologies. Libraries can adopt the use of assistive technologies and information communication technologies such as audio books, font enlargement software, ergonomic keyboards and mice etc. to enhance information provision to persons with disabilities.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design and methods that were used to meet the objectives of the study. Research design gives a systematic research procedure and techniques that the research will apply in collection and analysis of the data. The chapter is organized along the following lines: Research design; population sample; sample strategy and techniques; data collection methods and approaches; data collection procedures; data analysis and interpretation procedures.

3.2 Area of Study

This research targeted information access for persons with disabilities at DeKUT main campus and Nairobi campus libraries. Main campus library research targeted students, and staff while Nairobi campus the researcher targeted the library staff.

3.3 Research Design

Kumar (2014:122) describes research as a road plan that one chooses to follow throughout a research trip with the goal of discovering valid, objective, accurate, and cost-effective answers to research questions. A study, according to Creswell (2013:266), comprises the junction of theoretical assumptions, inquiry tactics, and specific methods. This research study employed

both quantitative and qualitative survey research design with the qualitative part being largely employed while the quantitative taking a small part of the study.

The use of both quantitative and qualitative research methods improved the evaluation by balancing the strengths and weaknesses of each type of data. This improved understanding by integrating different ways of knowing. The study used Dedan Kimathi University as a case study (DeKUT).

Using open-ended questions, the researcher sought responses on the challenges faced by disabled people trying to access library information. Quantitative approach was applied to collect data on types of impairment of persons with disabilities, years of experience of staff, from closed-ended questionnaires.

3.4 Population

The DeKUT learners with disabilities student population formed the main and key target of the study while the library staff being the information providers form the largest part of the population of study. The university disability mainstreaming committee constitutes the smaller but also important part of the target population since they are at the core of putting into place all the necessary factors that enables smooth learning for persons with disabilities. The framework of the target population was derived from information that was availed by the disability mainstreaming committee and the admission department after request by the researcher. The university has a total of 8,705 students in session currently. Out of these, 15 have been registered as learners with disabilities which represents 2.9% of the total student population. The total number of staff is 554. Out of these there were eight staff living with disability, this made 1.4%

of the total staff, 22 library staff making 3.9% and 12 the disability mainstreaming committee making 2.1%. This information that formed the sample size is summarized in table 3.1 below:

Table 3.1: Sample Frame

Population	Target Population	Target population size	Percentage of the total population	Sample size
Students	Learners living with disabilities	15	2.9%	15
Subtotal		15		15
Staff	Library staff	22	3.9%	22
	University Staff living with disabilities	8	1.4%	8
	Disability mainstreaming committee Members	12	2.1%	12
Sub total		42		42
Grand Total		57		57

3.5 Sampling strategies and techniques

A sample is a subset of data that a researcher selects from a larger population using a predetermined method. Enumerating every person in a population is usually impossible or impractical. As a result, studying the sample provides data that can be applied to the entire population. Sampling is the process of selecting a subgroup from a larger group and using that subgroup to draw conclusions about the larger group. Because sampling uses a smaller population to represent the whole, it reduces costs and time spent on large-scale research (Setia,2016:505).

3.5.1 Sampling strategies

Both census and non-probability sampling procedures were used in this investigation. Since the target population of the study was made up of only 57 respondents everyone in the target group was selected hence making this partly a census strategy. Non-probability sampling strategy was used because the sample size which included library staff disability mainstreaming committee and the persons with disabilities consisted of key informants on disability mainstreaming activities and information access and therefore were considered suitable for the study. Non-probability sampling strategy was also employed on persons with disabilities since the population of this sample group was not big meaning that the few who were available would be selected for the study. According to Kothari & Garg (2014:55) in non-probability sampling, sample items are selected deliberately by the researcher; his choice concerning the items remain supreme.

3.5.2 Sampling Techniques

Purposive sampling was used to select students and staff with disabilities who had varying levels of support needs to gather data on their experiences with information services.

The disability mainstreaming committee was also purposefully chosen as a small group of key informants. Purposive sampling eliminates sampling error and provides data on all individuals in the population, according to Kumar (2014:244). Purposive sampling allowed the researcher to reach a small group of key informants.

3.5.3 Sample size

The sample size of the students with disabilities population and staff was calculated using the formula below, which is a typical technique for estimating sample size in survey research from a finite population (countable population).

$$n = \frac{N*X}{X+N-1}$$

Where

$$X = Z_a / 2^2 * P (1 - P)) / MOE$$

MOE= Margin of Error; n= Sample Size; p= Proportion of Sample; N is the population size. Z-(/2) = the critical value of the normal distribution at a /2 (with a 95 percent confidence interval, is 0.05 and the critical value is 1.96). This refers to the estimate's required level of confidence. The following is the sample size for the target population, as indicated in Table 3.2:

Table 3.2 Sample size

Respondents	Population size	Sample Size
Persons living with disabilities at DeKUT	23	23
DeKUT disability committee	12	12
Library staff	22	22
Total	57	57

3.6 Data Collection Methods

Kothari & Garg (2014: 89) explains that data collection begins after a research problem has been defined and research design chalked out. The main methods of data collection include questionnaires, interviews and observation and focus groups. This study employed the questionnaire method.

3.6.1 Questionnaires

A questionnaire, according to Kumar (2014:172), is a written set of questions that respondents must answer. A questionnaire is a kind of survey that is specifically intended to elicit replies or research information from respondents in order to gather data or information. In this study the researcher used questionnaire method to collect data from the population sample. Two types of questionnaires both open and closed ended were used. The closed ended questionnaires applied the five-point likert scale on an interval scale spanning from 'strongly agree' to 'strongly

disagree'. These were used to collect data on work experience, level of education, age and gender of respondents and nature of facilities and services available. The openended questionnaires were used to collect data on the opinions of the persons with disabilities on general conduct and attitude of library service providers, availability of information services, access to services by persons with disability, and policies guiding service provision to persons with disabilities. Questionnaire method was preferred because it is less expensive, saves time and money, and offers greater anonymity since there was no face to face interaction between interviewer and respondents.

3.7 Research Instruments

Instruments for gathering, measuring, and evaluating data on a researcher's interests. Research instruments help programs collect data about a research problem to measure desired outcomes.

3.7.1 Pilot Study

The pilot testing of the questionnaires was done at Karatina University library. The university venue is a growing university with a population that is comparable to DeKUT university. The proximity in distance of Karatina University to DeKUT is small, this makes it a convenient pilot study venue for the researcher. According to Bryman (2012:263), a pilot survey checks the appropriateness of the questions and the accuracy of the instructions to be measured, as well as providing greater information on whether the survey type is effective in achieving the study's goals. Questionnaires were administered to 5 respondents using purposive sampling. Seven responses were received from the total of ten respondents.

3.7.2 Validity

Validity is the confidence that what is found by the findings corresponds to reality. Validity is defined by Bryman (2012:171) as the question of whether an indicator (or combination of indicators) designed to measure a notion actually measures that concept. Measuring validity of the instruments was done through a pilot study comprising of 10 percent of the sample population to predict how well the respondents would perform during the actual study. The effectiveness of the questionnaires that were used were reviewed and revised with the help of the supervisors to ensure they are of high quality and that the results would reflect the real variations as accurately as possible.

3.7.3 Reliability

The consistency of a measure of a concept is referred to as reliability. Kumar (2017:215) states that reliability of an instrument is the confidence that when the instrument is administered under the same circumstances to similar populations it will consistently produce the same results. Test-Retest reliability was used in this study by administering the same questionnaires twice to same people at different times to see if the scores are the same.

3.8 Data Collection Procedures

The questionnaires for persons with disabilities were administered according to the ability of the respondent to effectively communicate either by reading, writing, or verbal communication. The researcher located the respondents through email and phone calls and administered the questionnaires to them. The questionnaires were also sent to the respondents through WhatsApp link with a request to answer the questions and return the questionnaire. The responders were assured that the data and results would be kept private and confidential.

3.9 Data Analysis and Interpretation Procedures

Data analysis is a method for condensing and making sense of large volumes of data, frequently from several sources, in order to provide impressions that throw light on a research subject (Kothari:269). Descriptive statistics were used to analyze the quantitative data resulting from the closed ended questionnaires. Content analysis employed the Microsoft excel and SPSS data analysis tool to analyze open- ended questionnaires. The process involved selecting raw data, categorize, code and eventually analyzing the data to draw conclusions. This technique targeted the raw data from the student's respondents who were persons with disabilities. Their response on challenges they faced, attitudes of library staff and their opinion on information services provided was analyzed using this tool. Tables, graphs, charts, and percentages were used to present the research questions and objectives.

3.10 Ethical Considerations

Ethical and legal issues in research like the principle of confidentiality, and anonymity of the participants was adhered to. To collect data from the respondents, the researcher received permission from the University of Nairobi and the National Commission for Science, Technology and Innovation (NACOSTI). The participants consent was fully informed and sought after before the study proceeded. Academic integrity was observed by ensuring that what is reported is what was observed without any manipulation of data. Acknowledgement of other people's input throughout the whole study was observed to avoid theft through plagiarism and copyrighted work.

Kumar (2014:286-287) asserts that it is important for a researcher to avoid bias, inappropriate research methodology and incorrect reporting. He emphasizes that before persuading others, the researcher must consider the research's utility and relevance.

3.11 Chapter Summary

This chapter looked at the plan and process that will be employed when carrying out the research to achieve the aim of the study. The design used to carry out the research was both qualitative and quantitative. The area of study was at DeKUT library with a targeted population of persons living with disabilities, disability mainstreaming committee and the library staff as the information service providers. These target population group was achieved through census and purposive sampling techniques. Questionnaires were sent to the respondents through emails and data analysis was done using descriptive statistics and narrative analysis methods.

CHAPTER FOUR

DATA PRESENTATION, INTERPRETATION, AND DISCUSSION.

4.1 Introduction

The chapter presents data analysis, findings, presentation, and discussion of the results. The chapter is organized around the study objectives. Patterns were investigated, interpreted, and inferences drawn on them using descriptive data analysis.

4.1.1 Response Rate

The study targeted 57 respondents, 45 of whom completed and returned the questionnaires, yielding a response rate of 78.9%.

Table 4.1: Response rate

Respondents	Questionnaires Administered	Questionnaires Filled & Returned	Percentage
Persons living with disabilities at	23	17	73.9%
DeKUT			
DeKUT disability mainstreaming	12	7	58.3%
committee			
Library staff	22	21	95.4%
Total	57	45	78.9%

This response rate was sufficient for the study as all questionnaires were completed. Unanswered questions or clear indications that respondents did not take the interview or questionnaire seriously are considered poor responses according to (Bryman, 2012). It is recommended that response rates of 50% or higher be used for analysis and reporting (Mugenda and Mugenda 1999). Accordingly, the response rate was excellent.

4.2 Demographic Information

This section presents participant's demographic information; the areas sought include distribution of respondents by gender, work experience and level of education.

Table 4.2: Demographic Information

Category		Frequency	Percentage
Gender	Male	29	64
	Female	16	36
	Total	45	100
Work Experience	0-5 years	6	20.7
	5-10 years	4	13.8
	10-15 years	13	44.8
	Over 15 years	6	20.7
	Total	29	100
Level of Education	PhD	2	4.4
	Masters	6	13.3
	Bachelors	28	62.2
	Diploma	4	8.9
	others	5	11.1
	Total	45	100

The majority of the research participants (64%) were males, while 36% were females.

This implies a male-dominated study. The majority of respondents (44.8%) had served for 10-15 years, while 20.7 percent had served for less than 5 years or more than 15 years, and 13.8 percent had served for 5-10 years. Clearly, the majority of participants had served for a long time, indicating they could provide quality information based on their experience.

According to the survey, most respondents (62.2%) had bachelor's degrees, 13.3% had master's degrees, 8.9% had diplomas, and 4.4 percent had PhDs. This indicates that the majority of respondents were educated, able to comprehend and respond to research questions.

4.3 Disability Mainstreaming Functions and Activities at DeKUT

The first objective was to examine the effectiveness of existing policies that address information access for persons with disability.

4.3.1 Policies Put in Place to Guide in the Disability Mainstreaming

The study sought to establish whether there were policies put in place that guide in the disability mainstreaming.

Table 4.3: Policies put in place to guide in the disability mainstreaming

Policies	Frequency	Percentage
Yes	7	100
Total	7	100

From the study findings, all the 7(100%) of the respondents indicated that there were policies put in place that guide in the disability mainstreaming among which include establishment of a disability mainstreaming office which is fully operationalized. Further, the university is also ensuring that the reappraisal of all practices is being done to ensure they dont unintentionally discrimintate against or present unnecessary barriers against persons living with disabilities. This prooves that DeKUT is working in alignment with the legislations and rights of persons living with disabilities for example the Convention on the Rights of Persons with Disabilities (CRPD) and the National Council for Persons with Disabilities (NCPWD).

Participants were also asked to indicate how the institution is considering the needs of persons with disabilities in their policies. Participants reported that the needs of persons living with disability in the institution have been included in the policy and are clearly stated. These are; access to buildings (rumps), car park; clean and well labelled washrooms, (tuktuk) for transportation, disability friendly hostel rooms and clothes hanging lines, employment and tax exemption for staff living with disabilities. Disability awareness events have been carried out in

the institution through planning by the disability mainstreaming office. Activities for disability mainstreaming include; sensitization, social protection, public participation, education, stigma elimination, establishment of disability mainstreaming office, use of disability committee and disability directorate in planning of events. All of these activities show that the disability mainstreaming committee at DeKUT is working hard to ensure full participation of disabled students in all university activities.

The study found that while there are disability mainstreaming policies, staff and students with disabilities are unaware of them. According to Africa Disability Alliance (2015), mainstreaming disability does not mean adding a disability component to an existing activity or policy.

It means putting disabled people's experience, knowledge, and interests on the development agenda. People with disabilities can influence, participate in, and benefit from development processes by identifying the need for changes in goals, strategies, and actions.

4.3.2 Strategies Used in Disability Mainstreaming Activities

Further the study inquired from the mainstreaming committee on whether there is any existing strategy that is being used in disability mainstreaming activities.

Table 4.4: Strategies used in disability mainstreaming activities

Strategies on Mainstreaming Activities	Frequency	Percentage
Yes	7	100
Total	7	100

From the study findings, all the 7(100%) of the respondents indicated that the university management had strategies that were used in disability mainstreaming activities. However, there were no clearly defined disability mainstreaming strategies to measure the success or failure of implementation. According to Africa Disability Alliance (2015) The process of mainstreaming disability planning can be divided into five steps, namely; Initiation, Analysis, Formulation, Implementation and Monitoring & Evaluation.

4.3.3 Awareness and training activities at DeKUT

Respondents were asked to indicate how often they conducted staff awareness training on persons with disabilities. The responses were given by DeKUT disability committee.

Table 4.5: Staff Awareness Training on Persons Living with Disabilities

Staff Awareness	Frequency	Percentage
Frequently	7	100
Total	7	100

From the study findings, all the 7(100%) of the respondents indicated that the university management conducted frequent staff awareness training on persons with disabilities. These implies that there is proper understanding of the presence of persons living with disabilities in the institution. According to Heyman (2020), awareness does not always imply good acknowledgment and inclusion for people with impairments. This is a first step toward education and knowledge of the presence of people with disabilities in society, as well as the societal repercussions of their presence.

At DeKUT, a committee composed of 12 members, including staff and student representatives with disabilities, is in charge of disability awareness. This representation creates harmony, which is important in clinical settings where the social perspective and participatory approach may not be dominant. Because failure to engage end users can lead to misunderstandings, dissatisfaction, and poor outcomes, people with disabilities know they matter and can speak up as part of the consultation (Heyman, 2020).

The survey also aimed to determine the committee's disability awareness initiatives within the institution as depicted by the results in the diagram below.

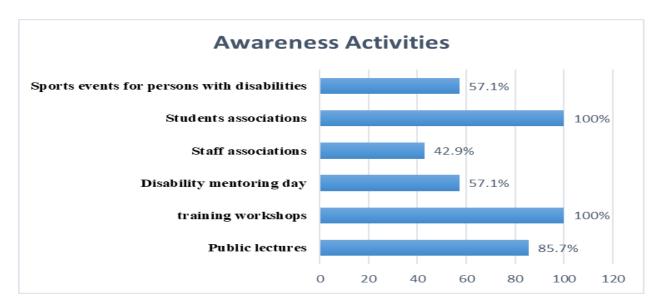


Figure 4.1 Awareness Activities

Participants reported that among the disability awareness activities that the committee has initiated in the institution included; formation of students associations and organizing training workshops (100%), public lectures (85.7%), disability mentoring day (57.1%), and staff associations (42.9%). This awareness activities have contributed to an enhanced accessibility and personal support for people living with disabilities, by providing a policy framework for

awareness events, tax exemption, ramps and lifts for easy access, transportation for mobility impaired. However these activities are limited to few staff members who are interested in awareness raising hence eliminating those that might have negative attitudes towards persons livine with disabilities. For example, Williamson (2014) notes that simulations, debates, and literary exposure, as well as real-life interaction and role-playing, may all be used in disability awareness initiatives.

4.3.4 Budget Allocation for Disability Mainstreaming

The study sought to determine whether the institution has budget allocation for disability mainstreaming activities. The findings were as follows;

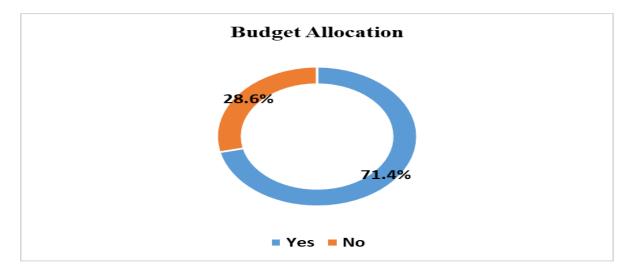


Figure 4.2: Budget Allocation

Results show that majority of the (71.4%) participants indicated there is sufficient budget allocation to cater for activities while 28.6% indicated that the budget allocation was not sufficient. Feizabadi (2020) notes that a lot can be achieved with a well-written plan and budget allocation for a library providing services tailored to the needs of the learners with disabilities.

4.4 Library Staff Awareness, Training and Service Provision

The second objective of the study was to determine the level of awareness of the library staff on service to Persons with Disabilities.

4.4.1 Staff training

Staff training on disability management was also investigated in this study. The findings are presented as follows;



Figure 4.3: Staff Training

From the study results, majority (81.0%) of the respondents indicated that they had never received any training for giving services to persons living with disabilities while only 19.0% indicated to have received training. This implies that majority of the library staff had not received training on service provision for persons living with disabilities neither do they have trianing on handling equipments or assistive technologies for information access for persons with disabilities. Furthermore the findings indicated that there are no permanent sign language interpreters at the university even though there are plans to have one in place. According to Babic and Dowling (2015:4), college administrators and disability coordinators must adjust structures, practices, and processes to better accommodate disabled students.

A continuous individualised approach based on the needs and experiences of students should be developed by coordinators' support services for students with disabilities.

4.4.2 Attitude and Conduct of Staff towards PwDs

Participants were asked to indicate their level of agreement with the following statement concerning attitudes and legal issues concerning non-discrimination of PWDs.

Table 4.6: Attitudes and legal issues concerning non-discrimination of PWDs

Attitudes and legal Issues	Mean	Std dev
"Disability" is specifically mentioned as a prohibited ground of	2.57	0.14
discrimination.		
There is existence of affirmative measures against Persons with	4.57	0.10
disabilities		
We have legal and administrative remedies for persons who have	4.00	0.33
been subject of discrimination on the basis of disability		
We have established plans to have all our facilities and services	4.43	0.10
accessible for Persons with disabilities		
We have established accessibility requirements for public	4.14	0.22
procurement for persons with disability		
There are plans to have certified sign language interpreters in our	3.71	0.20
institution.		

From the finding, majority of the participants strongly agreed that there is existence of affirmative measures against Persons with disabilities (mean = 4.47 std dev =0.10), the university have established plans to have all facilities and services accessible for Persons with

disabilities (mean =4.43 std dev =0.10) and that the university have established accessibility requirements for public procurement for persons with disability (mean =4.14 std dev =0.22)

Results also show that there are legal and administrative remedies for persons who have been subject of discrimination on the basis of disability (mean =4.00 std dev = 0.33), also the university has plans to have certified sign language interpreters in the institution (mean = 3.71 std dev = 0.20). However, participants reported that "Disability" is not specifically mentioned as a prohibited ground of discrimination (mean = 2.57, std dev = 0.14). On whether the university was doing enough to include persons with disabilities in service provision, participants reported that the university is working hard to have persons with disabilities well integrated into the institution although more needs to be done specifically in information access.

In view of the outcome of this study the attitude of library staff in service provision and support of persons with disabilities is positive, the library has provided accessible and clean environment for studying, there is available help for students with disabilities whenever needed. However, the study has established that for library staff to fully contribute to the learning process of students with disabilities there needs to be an established policy to guide in information provision for students with disabilities.

The staff must brace up to knowing the individual information needs of students with disabilities in as much as greater number exhibits positive attitude in service provision the act of exhibiting positive attitude alone is not enough if it is not backed up with deep understanding and knowledge of individual needs to every class of users (Brannen, Milewski & Mack, 2017:2)

4.4.3 Level of Awareness of Persons with Disabilities by library Staff

The library staff members were asked to clarify if they were aware of the existence of persons with disabilities in the university.

Table 4.7: Awareness of persons with disabilities in the university

Total	Frequency	Percentage
Yes	21	100
Total	21	100

All the respondents 21 (100%) indicated that they were aware of persons with disabilities in the university. Thus, implying that they were in a position to comment on research question based on what they observe.

Further participants were asked to indicate how often they interacted with persons living with disabilities in the library. The findings are presented as follows;

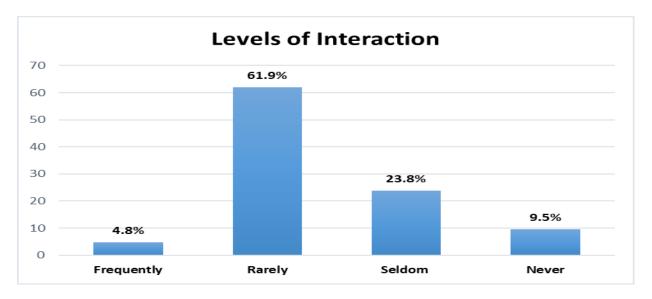


Figure 4.4: Level of interaction

Results show that majority of the participants 13(61.9%) rarely interacted with persons with disabilities in the library. 23.8% of the respondents indicated seldom 9.5% of the respondents indicated never while 4.8% of the respondents indicated on frequent basis. This implies that majority of the library staff participants rarely interacted with persons with disabilities in the library. These findings might be an indication of low turnout of students with disabilities from using the library facilities. Again, the reference service librarian might not be aware that the student has a disability even when he or she has officially made it known elsewhere in the campus. This calls for more staff awareness and more awareness on information service availability by persons with disabilities.

According to Remy and Seaman (2014:1), librarians have a greater need to develop personal, professional, and library-wide understanding in order to better help students with disabilities. One thing librarian may do is get more familiar with disability literature in general and, in particular, the features of hidden or invisible disabilities.

4.4.4 Inclusion of PwDs in Library Planning Processes

Table 4.8: Involvement of Persons with Disabilities in Library Planning Process

Planning Involvement	Frequency	Percentage
Yes	4	19
No	17	81
Total	21	100

From the research findings, majority of the respondents (81%) indicated that persons with disabilities in the university were not consulted in planning process while 19% were of the

contrary opinion. Drawing from the study results it's evident that persons with disabilities were not consulted in library planning process. The findings highlight the need for a policy that is inclusive right from the development to implementation level by incorporating persons with disabilities in the planning and in the execution of the policy.

4.5 Information Resource Access for Persons with Disabilities

These findings are in support of the third objective which was to assess the availability of information access resources for Persons with Disabilities.

4.5.1 Library Preparedness in Service Provision

Participants were asked to rate their preparedness in offering support to the information services of persons living with disabilities.

Table 4.9: Level of preparedness in offering information support to PLWD

Level of Preparedness	Frequency	Percentage
Good	7	33.3
Fair	13	61.9
Poor	1	4.8
Total	21	100

Source: Research data, (2021)

From the results, 61.9% of the respondents indicated that the university was fairly prepared in offering support and information services to students with disabilities, 33.3% of the respondents indicated that the university was adequately prepared, 4.8% indicated that the institution was poorly prepared. This indicates that the university was adequately prepared to provide assistance and information to students with impairments.

Transportation, ramps, and washrooms were all provided to those with disabilities in a sufficient manner. Individual learners with disabilities, on the other hand, require more specialized services. From our first findings, we wanted to know if the personnel had any training in dealing with special needs and technology for people with impairments. We discovered that there was no staff training and no equipment for people with disabilities to access information. Recruiting librarians and employees with experience and training in assisting persons with disabilities, as well as educating library suppliers about the need for accessible materials, such as databases, e-books, and videos, are two initiatives that can be implemented to ensure accessible resources, according to Brannen, Milewski, and Mack (2017).

4.5.2 Library Service Provision

Respondents were asked to indicate their level of agreement with the following statements assessing on Library services.

Table 4.10: Library services

Library services	Mean	Std dev
The university has a policy that guides in service provision to persons	4.15	0.14
with disabilities		
Information materials in the library are accessible to all users including	3.05	0.20
PWDs		
Information facilities are accessible and friendly for reading and	3.30	0.22
learning.		
Persons with disabilities are given specialized training and assistance on	2.35	0.21

literature searches

Library guides are adequate and visible for all users including PWDs 2.70 0.18

From the findings, majority of the participants agreed that the university has a policy that guides in service provision to persons with disabilities (mean =4.15 std dev =0.14), however majority were of moderate views that the information facilities are accessible and friendly for reading and learning (mean =3.30 std dev =0.22), information materials in the library are accessible to all users including PWD (mean =3.05 std dev =0.20), library guides are adequate and visible for all users including PWDs (mean = 2.70 std dev =0.18) and that persons with disabilities are given specialized training and assistance on literature searches (mean =2.35 std dev =0.21). From the findings, the library is able to provide services adequately according to the available information materials. In view of this, general service provision is good regardless of the severity of the disabilities of the students. However, it should be noted that the low interaction rate of staff with persons with disabilities in the library from the previous findings, could imply that these students living with severe disabilities like total mobility impairment might not see the need of visiting the library at all.

Pionke (2017) observes that patrons have had positive experiences with library staff, but that there was room for improvement as libraries as a whole don't go far enough in consistency or fully thought out ways to be accessible. Students with disabilities e.g. mobility impairment are concerned with being able to use the resources of the library without penalty when their disability gets in the way because of factors beyond their control.

4.5.3 Seeking Assistance for PwDs in the Library

Participants mainly students living with disabilities were asked to indicate how often they sought assistance when accessing any information from the university.

Table 4.11: Frequency in Seeking Information from the University

Seeking Information	Frequency	Percentage
Always	4	23.5
sometimes	4	23.5
Rarely	7	41.2
Seldom	2	11.8
Total	17	100.0

From the findings, 41.2% of the respondents indicated rarely, 23.5% of the respondents indicated always or sometimes while 11.8% of the respondent's indicated seldom. From the findings we see that persons with disability rarely sought assistance when accessing any information from the university. These findings go back to attitudes of staff towards persons with disabilities and awareness raising on service provision among students with disabilities. Attitude of staff towards the students during service provision may repel of the students from seeking help from them or may attract students towards them.

4.5.4 Library Facilities and Services to Persons Living with Disabilities

The study sought to determine the extent to which respondents agreed with the following statement assessing on Library services.

Table 4.12: Statement Assessing on Library Services

Library services	Mean	Std dev
Library staff are friendly and helpful	4.06	0.20
I have been trained by Library staff on information searching skills	3.38	0.22
The library opening and closing hours are appropriate for me	3.94	0.20
The information materials provided meet my information needs		0.22
The library has access to good internet connectivity		0.25

Majority of the participants agreed that library staff are friendly and helpful (mean =4.06 std dev =0.20), the library has access to good internet connectivity (mean =4.00 std dev =0.25), the library opening and closing hours are appropriate for many disabled individuals (mean =3.94 std dev =0.20), however participants were uncertain that the information materials provided meet my information needs (mean =3.53 std dev =0.22) and that they have been trained by library staff on information searching skills (mean = 3.38 std dev =0.22). Descriptive results show that majority of staff assisted the PLWDs on utilization of e-resources services, information literacy skills, cleaning services and directional services. From the finding's library services are good and friendly to persons living with disabilities. However, there was a significant concern for the respondents on being able to access digital information resources. With good internet connectivity but poor access to the web proved to be frustrating to some of the respondents.

According to Pionke (2017), professional librarians must think about how information is disseminated as well as the consequences of failing to indicate disability inclusion at the point of service. Librarians, particularly those in charge of e-resource administration, should think about how their website communicates to the diversity of their users. To incorporate accessible

information on library websites, library instruction coordinators, website administrators, and library administration must collaborate.

4.5.6 Library Infrastructure

Respondents were asked to indicate their level of agreement with the following statements relating to library infrastructure

Table 4.13: Library infrastructure

Library infrastructure	Mean	Std dev
The library has sufficient sitting spaces that I can access and study	3.69	0.09
Library furniture and computer hardware are adjustable and easy to use	3.00	0.14
Library signs and directions are clear	3.50	0.07
Information materials are provided in the format I can use	3.94	0.22
Sanitary facilities are accessible and well maintained	4.13	0.32

From the study findings, majority of the participants agreed that sanitary facilities are accessible and well maintained (mean= 4.13 std dev= 0.32), information materials are provided in the format PLWD can use (mean=3.94 std dev =0.22) and that the library has sufficient sitting spaces that PLWD can access and study (mean = 3.69 std dev =0.09). However, results show that library signs and directions are not very clear (mean = 3.50 std dev =0.07) and that library furniture and computer hardware are adjustable and easy to use (mean =3.00 std dev =0.14). The findings on library infrastructure give a fair report on the general outlook of the library form a person with disability perspective.

Feizabadi (2020) notes that library services include providing access to library space and references, holding training and recreational courses tailored to the needs of the learners with disabilities, having trained and positive human resources and librarians, providing a collection of new and diverse books and references in various formats, and equipped libraries to new technologies. All these can only be achieved with a well-written plan and budget allocation.

4.6 Chapter Summary

From the chapter the total number of respondents were 57 but the ones who participated in the study were 45 which comprised more than 50 percent of the respondents. Data was presented in form of pie charts, tables and graphs. The overall response from the study suggest that even though there is disability awareness at DeKUT, the patrons' experiences demonstrate that much work remains to be done in order for the library to be truly accessible and friendly to persons with disabilities. The suggested steps that may be used to improve the library's services to persons living with disabilities include: creation of departmental champions, the implementation of an accessibility audit report, training of staff by allocating more funds, and the creation of information section with assistive technologies for information access.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The analysis and data collected led to the following conclusions and recommendations.

The responses were based on the study's goals. The purpose of the study was to examine the effectiveness of existing policies that address information access for persons with disability, determine the level of awareness of the library staff on services to persons with disabilities, assess the availability of information access resources for persons with disabilities and to propose implementation strategies for institutional policies of information access for persons living with disabilities.

5.2 Summary of the of the Findings

5.2.1 Effectiveness of Existing Policies for Information Access for Persons with Disability

Results show that Dedan Kimathi University has made significant progress in addressing the learning welfare of students with disabilities. For instance, the university had established disability mainstreaming office which is fully functional. Further, the university has developed effective policies that seek to ensure that there is a guiding framework for all issues that pertain to Persons living with disabilities. The university's development of such measures supports the government's efforts to build capacity and remove barriers for disabled people.

For example, equal recognition in the learning process, participation in university activities such as student leadership and appointments are all protected and promoted by the institution's policy. Putting in place such measures confirm compliance with National Disability Policy (2018) that

planning and implementation of activities, government and private institutions should develop policies that fully account for the welfare of the disables persons.

However, reports from library staff indicate that though there are policy measures that takes care of their welfare, there is dire need to include assistive technologies for information access in the policy document. In their opinion the management of needs include persons with disabilities at the initial planning level. For instance, there is need to increase budgets to cater for facilities that improve information access for persons with disabilities.

In order to enhance policy effectiveness, the management of DeKUT need to carry out continuous policy training for their staff to ensure that there is policy awareness on services to persons living with disabilities. Other stakeholders should also be engaged periodically, this will encourage a university culture that fully recognizes and takes care of persons living with disabilities.

5.2.2 Level of awareness of the library staff on service provision to Persons with Disabilities

To promote level of awareness and service provision to students with disabilities by the university library staff, the management of DeKUT, have put in place various measures such establishing a disability mainstreaming committee which has given a clear criteria of adopting core functions of the institution in responding to the needs of students with disabilities through responsive targets, policies and strategies. The findings concur with Shumba and Moodley, (2018) that there should be an awareness of the existence of different disability policies and legislation by all members of an institution and not only those that are actually involved in their implementation.

Results show that in view of raising awareness, the university management also recognized formation of students and staff associations, the university recognized disability mentoring day, it also organized training workshops and public lectures. Dedan Kimathi University also has legal and administrative remedies for anyone who have been discriminated against because of their disability, according to the findings. The university has plans to have certified sign language interpreters in the institution. The participants reported that disability is not specifically mentioned as a prohibited ground of discrimination.

The findings, which align with those of Leake and Stodden (2012), show that libraries can improve services to Pwds and raise awareness among the college population through a variety of outreach programs, such as events held during disability awareness month, conducting panel discussions with students, professors, and staff on the spectrum; presenting library products such as audio books.

Assessment on staff attitude at Dedan Kimathi University revealed that library staff are friendly and helpful, the library has access to good internet connectivity, and the library opening and closing hours are appropriate for students with disabilities, however many participants were uncertain whether the information materials provided adequately met information needs of students with disability.

Even though the university had implemented policy measures to promote staff awareness in handling students with disabilities, staff adherence on recommended measures revealed mixed results. For instance, while the disabled students perceived that the university needed to do more in addressing their challenges; some of the university staff indicated that, dealing with disabled students was challenging to them. They explained that in most times, students with disabilities were not easy to handle, in their opinion; these students always expected priority and exclusive

treatment in affairs. In view of this, staff training on information service provision for persons with disabilities need to be put into consideration.

5.2.3 Availability of Information Access Resources for Persons with Disabilities

Results on this study show that the management at DeKUT had made significant steps in ensuring availability of information access resources for persons with disabilities, for instance the university had policy in place that ensures infrastructure is accessible through ramps and lifts. Also, students with disabilities indicated that information facilities at the university are accessible and friendly for reading and learning. The internet is good and there are other formats in which Information materials in the library can be accessed through by users for instance CDs, QR-Codes etc. Reports indicate that persons with disabilities are given specialized training and assistance on literature searches. The findings support study recommendation by Raja (2016) universities should come up with comprehensive policy framework that facilitates information accessibility for persons with disabilities. However, reports indicate that library guides are not visible for all users especially the visually impaired students.

Reaction from student with disabilities show that though the internet speed is good, the DeKUT library does not offer assistive software for online resources. Various respondents expressed the need to have a fully functional special section for housing software and hardware for specific information needs for the persons living with disabilities. These sections will provide customized information services such talking/Audio Books, Font enlarging software, Sign Language, Braille services, adjustable furniture etc. these could assist persons living with disability to fully access and utilize information resources for their scholarly work. The library is not fully prepared to offer e-resources to visually impaired students and hence the online/web services are not

effective. Also, regarding staff training the reports indicated that library staff had not been trained on information searching skills for learners with disabilities.

The institution had preparations in place to record crucial information in braille and sign language in order to improve information access for students with disabilities. The findings reveal that the University must take the required steps to mainstream the learning environment by implementing effective communication techniques. The institution must guarantee that suitable and effective communication is followed, that assistive ICT devices are available for PWDs, and that students and staff are regularly trained on how to use information systems. According to Mathuni (2012), education is essential for disabled people to achieve their full human potential and to exercise other rights such as the right to education and knowledge, and the right to work and employment.

5.2.4 Strategies for institutional policies of information access for persons living with disabilities

Moving forward, the management of Dedan Kimathi university need to embrace policy recommendation articulated by the respondents, for instance results show that there is need for the university to conduct a review of all existing legislation so as to adequately take care the welfare of the persons living with disabilities and integrate them fully into the universities activities. The university should develop policy measures that address the plight for students with disabilities in accessing information resources not only from the library premises but also remotely. These policies should be geared in creating more awareness, advocating for provision of Assistive technologies, introduction of specialized training of staff and including persons living with disabilities in the initial planning and formulation of policies and other activities. It cannot be emphasized enough on the importance of creation of a library section for person's

living with disabilities which should be created to facilitate easy access to scholarly materials. The conclusions are consistent with the findings of the KNCHR (2014) study, which shows that progress has been achieved toward realizing the rights of people with disabilities, but at a gradual rate due to a variety of obstacles.

In addition, the modified Workshops, training, and seminars should be used to disseminate the university's disability policy. Disability policy pamphlets, brochures, and posters should be created and distributed to university employees and other interested parties. The policy should be released to serve as a starting point for policy education. DeKUT library administration needs to mobilize resources to support disability studies, training, and information dissemination, and advocate for affirmative action application where necessary to address disability disadvantage. When the institution is putting in place the library infrastructure they should include and have in mind the people with disabilities and with that they will be in a position to bring on board what the group needs, provide accessible furniture, friendly services, audio visual materials, adjustable shelves, staff training on how to offer services to PLWDs, ramps instead of stairs. More information literacy should be done and more innovative services should be introduced to cater for people with students with disabilities, have a special collection in braille and audio format and provide Assistive technologies for information access and sign language.

5.3 Conclusion

The study concludes that Dedan Kimathi University has made significant progress in addressing the learning welfare of students with disabilities. The university had laid policy promotion strategies that propagated full realization of the human rights. These include taking steps to protect, promote, and fulfill their rights in a variety of areas, including equal recognition in the

learning process, participation in university activities such as student leadership and appointments, and ensuring that existing policies address information access for people with disabilities.

According to the findings, Dedan Kimathi University implemented a number of measures, including establishing clear disability mainstreaming criteria in every department and adapting core institutional functions to respond to the needs of students with disabilities through responsive targets, policies, and strategies. In view of raising awareness, the university managements also recognized formation of students and staff associations, the university recognized disability mentoring day, and organized training workshops and public lectures.

The study concludes that management on Dedan Kimathi University hand made significant steps in ensuring availability of information access resources for persons with disabilities, however the University library did not offer specialized searches on online resources. The library lacks proper furniture that cater for physically challenged, the library is not fully prepared to offer e-resources to visually impaired students, online web services are nor effective, there are no special rooms and customized information access to those with disabilities, sign language interpreter was also lacking and that the library did not have devices (talking/audio books, sign language, braille services) that could assist persons living with disability. In addition, there was no adequate training of staff to handle equipment and technology for persons with disabilities.

Due to the fact that the current policies fail in addressing the situation comprehensively, the university should conduct a review of all existing legislation so as to adequately take care of the welfare of the students living with disabilities. These policies should be geared in creating more awareness, advocating for provision of assistive technologies, introduction of specialized training

to staff and create a section for person's living with disabilities and facilitating easy access to scholarly materials.

5.4 Recommendations

In order to promote effective service provision, Access to information and knowledge for persons with disabilities at Dedan Kimathi University, the following measures should be implemented.

- i. The present policy should be reviewed in order to optimize the contributions of persons with disabilities including employees and students, to make it easier for them to use university facilities and services, and ensure that their requirements are met in the discharge of human resource functions and management in work and studies.
- ii. Foster faculty capacity building in the creation of disability responsive pedagogy, give Persons with Disabilities a fair chance to communicate their demands, and encourage their involvement in all University activities.
- iii. Conduct regular needs assessments for all Persons with disabilities, establish a disability resource center, affirmatively enroll students with disabilities in various academic programs, and raise awareness amongst the university community and the general public.

- iv. Provision of personal assistants, psychosocial support, learning materials, appliances, financial, and other services to support inclusive education.
- v. Inspect all schools to ensure that students with disabilities are treated fairly, that disability rights are promoted and fulfilled in various areas, such as equal recognition in the learning process, participation in university activities like student leadership and appointments, etc.
- vi. The university should ensure that students with disabilities are enrolled in academic programs that are appropriate for their qualifications and abilities, that nondiscriminatory practices are followed in all programs, and that an adequately equipped resource center is established to meet the needs of PWDs.
- vii. The university administration should provide opportunities for all teachers to upgrade their skills and learn how to work with students with disabilities.
- viii. Provide information on health services in accessible formats such as braille, Kenyan Sign Language, and other augmentative communication methods.

5.5 Suggestion for Further Research

The study sought to evaluate information access for persons with disabilities through formulated policies at Dedan Kimathi University of Technology; however, the current study did not stratify Persons Living with Disabilities into various groups. Given that various groups demand various policies to address their plight, in future, there is need to conduct investigation that concentrates specifically on these groups rather than generalizing all under one group.

5.6 Chapter Summary

The study has shown that DeKUT has made recommendable strides in recognizing the presence of persons with disabilities in the institution and creating awareness to promote their rights. However, from the responses various challenges were experienced by students living with disabilities when accessing scholarly work and online information materials. This shows that there is a lot to be done in order to achieve effective information service provision as well as full information access and utilization for persons with disabilities. The study suggested policy implementation strategies and recommendations that the information service providers can adopt to achieve improve information provision to persons with disabilities.

REFERENCES

- Addai-Wireko, A., Nukpe, P. & Frimpong, A. D. (2020). Adaptive Technology for Supporting

 Persons with Disability in selected Public Academic Libraries in Ghana. *Library*philosophy and practice (e-journal). https://digitalcommons.unl.edu/libphilprac/4435.
- Africa Disability Alliance (2015). Advocacy tool kit for disability mainstreaming. https://www.cbm.org/article/downloads/54741/Disability_Mainstreaming_Toolkit.pdf.
- Alvi, M. H. (2016). A manual for selecting sampling techniques. *Munich Personal RePEc Archive*. https://mpra.ub.uni-muenchen.de/70218/1/MPRA_paper_70218.pdf.
- Babic, M. M. & Dowling, M. (2015). Social support, the presence of barriers and ideas for the future from students with disabilities in the higher education system in Croatia. Disability & Society 30(4), 1-16. DOI: 10.1080/09687599.2015.1037949.
- Brannen, M. H., Milewski, S. & Mack, T. (2017). Providing Staff Training and Programming to Support People with Disabilities: An Academic Library Case Study. *Public Services***Quarterly, 13(2),61–77. https://doi.org/10.1080/15228959.2017.1298491.
- Bryman, Alan (2012). Social Research Methods (4th Ed.). Oxford: Oxford University Press.
- Convention on the Rights of Persons with Disabilities, (2014). Training guide. Retrieved from www.un.org/disabilities/documents/convention/convoptprot-e.pdf.
- Creswell, J.W. (2013). Research Design: Qualitative, Quantitative, and Mixed Methods

- Approaches (4th Ed.). London: SAGE.
- Gabbay, L. & Shoham, S. (2017). The role of academic libraries in research and teaching.

 *Journal of Librarianship and Information Science: 1(16). Retrieved from DOI: 10.1177/0961000617742462
- Garcia-Cabot, A., Garcia-Lopez, E. & Karhu, M. (2014). Workshop for "Creating accessible digital educational content".
- Graves, S. J., & German, E. (2018). Evidence of Our Values: Disability Inclusion on Library

 Instruction Websites. *Libraries and the Academy* 18(3), 559-574.

 https://doi.org/10.1353/pla.2018.0033.
- Heyman, S., Pillay, D., Andrande, D., Roos, R., Sekome, K. (2020). A transformative approach to awareness, driven by persons with disability. *South African Health Review 2020*. https://www.hst.org.za/publications/Pages/SAHR2020.aspx
- International Disability Development Consortium (2014). IDA-IDDC statement on disability and disasters: Open Working Group, January 10, 2014.
- Ireri, B. R., King'endo, M., Wangila, E., & Thuranira, S. (2020). Policy strategies for effective implementation of inclusive education in Kenya. *International Journal of Educational Administration and Policy Studies*, 12(1), 28-42. DOI: 10.5897/IJEAPS2019.0622.
- Jaeger, P. T. (2018). Designing for Diversity and Designing for Disability: New Opportunities

For Libraries to Expand Their Support and Advocacy for People with Disabilities. International *Journal of Information*, *Diversity*, & *Inclusion*, 2(1-2), 2574-3430., publish.lib.umd.edu/IJIDI/.

- Kenya National Commission for Human Rights (2014). Eleventh annual report 2013/2014. http://www.knchr.org/Portals/0/AnnualReports/KNCHR%20%20Annual%20Report%20 2013-2014.pdf.
- Khasnabis, C., Mirza, Z. & Maclachlan, M. (2015). Opening the GATE to inclusion for people with disabilities. *The Lancet*, 386(10010), 2229-2230. DOI: 10.1016/S0140-6736(15)01093-4.
- Kothari, C. R., & Garg, G. (2014). Research Methodology: Methods and Techniques. New Delhi: New Age International Publishers.
- Krahn, G. L., Walker, D. K. & De-Araujo, R. C. (2015). Persons with disabilities as an unrecognized health disparity population. *American Journal of Public Health*, 105(2), 198-206. Doi: 10.2105/AJPH.2014.302182.
- Kumar, R. (2014). Research Methodology: A Step-by-Step Guide for Beginners (4th ed.).

 London: SAGE.
- Kumbier, A. & Starkey, J. (2016). Access Is Not Problem Solving: Disability Justice and Libraries. *Library trends*, 64(3), 468-491. DOI: https://doi.org/10.1353/lib.2016.0004.

- Lang, R., Schneider, M., Kett, M., Colle, E. & Groce N. (2017). Policy Development: An Analysis of Disability Inclusion in a Selection of African Union Policies Inclusive.

 *Development policy review. Doi 10.1111/dpr.12323.
- Lawal-Solarim, E. O. (2012). A Survey of Library and Information Services to PhysicallyChallenged Students in Academic Libraries in Ogun State, Nigeria.

 Library Philosophy and Practice 2012, 1522-0222.
- Leake, D. W. & Stodden, R. A. (2014). Higher Education and Disability: Past and Future of

 Underrepresented Populations. *Journal of Postsecondary Education and Disability*,

 27(4), 399-408. https://www.researchgate.net/publication/279940060.
- Lewis, J. (2013). Information Equality for Individuals with Disabilities: Does It Exist?

 Library quarterly journal: Information, Community, Policy 83(3), 229-235.

 https://doi.org/10.1086/670697.
- Mathuni, P. N. (2012). East African Policy on persons with disability. http://meac.go.ke/wp-content/uploads/2017/03/adopted_eac_disability_policy_march_2012.pdf.
- Mugenda, O.M. and Mugenda, A.G. (1999) Research Methods: Quantitative and Qualitative Approaches. Acts Press, Nairobi.
- National Council for Persons with Disability (2018). Strategic plan 2018 2022.
- Onwubiko, E. C. (2021). Attitude of librarians towards users with learning disabilities.

- Library Philosophy and Practice (e-journal), 4697. https://digitalcommons.unl.edu/libphilprac/4697.
- Oyelude, A. (2017). Assistive technologies in libraries and the classroom. *Library Hi Tech News: 10(34), 22-23*. Retrieved from https://doi.org/10.1108/LHTN-10-2017-0072.
- Phukubje, J. & Ngoepe, M. (2016). Convenience and accessibility of library services to students with disabilities at the University of Limpopo in South Africa. *Journal of Librarianship and Information Science:* 49(2), 180-190. DOI:10.1177/0961000616654959.
- Pionke, J. (2017). Toward Holistic Accessibility: narratives from Functionally Diverse Patrons. Reference & User Services Quarterly. 57(1), 48-56. Retrieved from https://journals.ala.org/index.php/rusq/article/view/6442.
- Raja, D. S. (2016). Bridging the disability divide through digital technologies: background paper; digital dividends. *World development report*. http://www.worldbank.org/en/publication/wdr2016.
- Remy, C. & Seaman, P. (2014). Evolving from Disability to Diversity: How to Better Serve

 High-Functioning Autistic Students. Information Literacy and Instruction, 54(1).

 https://journals.ala.org/index.php/rusq/article/view/3968/4454
- Rysavy, M. D. T. & Michlak, R. (2020). Assessing the Accessibility of Library Tools & Services When You Aren't an Accessibility Expert: Part 1. Journal of library administration, 60(1),71-79. https://doi.org/10.1080/01930826.2019.1685273.

- Sanchez-Rodriguez, N. A., & LoGiudice, J. (2019). Building bridges: Fostering dynamic partnerships between the library department and office of student disability services in higher education. *Journal of Access Services*, 15(4), 142-160, DOI:10.1080/15367967.2018.1520640.
- Schroeder, H. M. (2018). Implementing accessibility initiatives at the Michigan State University Libraries. Reference service review, 46(3), 399-413. DOI 10.1108/RSR-04-2018-0043.
- Seyama, L. G., Morris, C. & Stilwell, C. (2014). Information seeking behavior of blind and visually impaired students: a case study of the University of KwaZulu-Natal, Pietermaritzburg Campus. *Mousaion*, 32(1):1-22. DOI:10.25159/0027-2639/1697
- Shumba, T.W., & Moodley, I. (2018). Review of policy and legislative framework for disability services in Namibia. South African Journal of Physiotherapy, 74(1),399. doi: 10.4102/sajp. v74i1.399.
- Tripathi, M. & Shukla, A. (2014). Use of Assistive Technologies in Academic Libraries: A

 Survey. Assistive Technology: The Official Journal of RESNA 26(2), 105-118.

 DOI:10.1080/10400435.2013.853329.
- Williamson, C. (2014). Effects of disability awareness educational programs on an inclusive.

 Scholarly works @ BGSU Repository. classroom. https://scholarworks.bgsu.edu/
- World health organization (2011). world report on disability. Retrieved from www.who.int/disabilities/world_report/2011/en.

Yoon, K., Hulscher, L. & Dols, R. (2016). Accessibility and Diversity in Library and

Information Science: Inclusive Information Architecture for Library Websites. *The library quarterly*, 86(2). https://doi.org/10.1086/685399.

APPENDICES

APPENDIX I

LETTER OF INTRODUCTION

Beatrice N. Luvale P.O. Box 657-10100 Tel: 0723-873640

29/09/2020

Dear Respondent

Re: Academic Research

I am pursuing a master's degree in Library and Information Science at the University of

Nairobi. I am conducting an academic research on institutional strategies for addressing persons

with disabilities in accessing information resources at Dedan Kimathi University of Technology.

The objectives of this research are to: examine existing policies put in place to address

information access for persons with disability, determine their level of awareness, assess the

availability of information resources and examine existing frameworks for addressing issues of

persons with disabilities. I humbly request that you complete the enclosed questionnaire as

completely as possible. Your responses will be handled privately and used solely for the sake of

my academic study. Thank you very much for your help.

Yours faithfully

Beatrice N. Luvale

70

APPENDIX II

RESEARCH QUESTIONNAIRES

DISABILITY MAINSTREAMING COMMITTEE

I take this opportunity to invite you to participate in my research study of masters of library and information studies. You are requested to complete this anonymous questionnaire with the assurance that the information you give will be handled with uttermost confidentiality. Please give your answer by putting a (\sqrt) against the most appropriate response in your opinion or by writing on the provided space where necessary.

SECTION A: GENERAL INFORMATION 1) Designation..... 2) Gender Male Female Prefer not to say 3) Work experience 0-5 years 5-10 years 10-15 years over 15 years 4) Kindly indicate your current level of education by ticking the appropriate box. Phd Masters **Bachelors** Diploma Others SECTION B: DISABILITY POLICIES AND MAINSTREAMING AT DEKUT 5) Is there an officially recognized disability policy in your institution? No Maybe 6) If the answer to the question (5) above is yes please indicate by ticking in the box provided whether there are legal provisions mandating the representatives of persons with disabilities to participate in policy-making. If the answer is no skip to (9). No Don't know Yes 7) Where is the emphasis placed in the policy? Indicate by ticking in the box provided.

	Rehabi	litation						
	Individ	lual support						
	Access	ibility measures						
	Anti-di	iscrimination law						
8)	Please	provide information	on ho	w the	institutio	n is considering	g the variou	is needs of
	person	s with disabilities in t	heir pol	icies.				
9)	What	strategy does the insti	tution u	ise in ir	nplemen	ting disability po	olicies?	
10)	In yo	ur opinion do you th	ink the	policy	is effect	ive in addressin	g the needs	of persons
	living	with disabilities at De	KUT?					
	Yes		No			Somehow]
11)	How	often do you condu	ict di	sability	awaren	ess activities o	f persons 1	living with
	disabil	ities in the institution	?					
	Frequ	ently						
	Rarely	y						
	Seldo	m						
	Never	•						
12)	Indicat	e by ticking on the ri	ght box	the di	sability a	awareness activi	ties that the	committee
	has init	tiated in the institution	1.					
	i.	Public lectures						
	ii.	Training workshops						
	iii.	Disability mentoring	g days					
	iv.	Staff associations						
	v.	Students association	ıs					
	vi.	Sports events for PV	VDs					
13)	List do	wn 3 strategies used i	n disab	ility ma	instream	ning procedures.		
	i.							
	ii.							

iii.							••
SECTION	I C. RUDC	FT ALLO	CATION FO	R DISABILITY M	1 A INSTRE	MINC	
				y mainstreaming ac		MINIO	
Yes		No		Don't know	civities:		
	nswer to and		ve is ves nl	ease indicate wheth	er the hudge	et allocate	d is
	t for your ac		, ve 13 yes, pr	edse mareate wheth	ier the budge	t unocute.	u 15
Yes	Tor your ac	No		Maybe		1	
103		110		Wayoe		I	
16) If the a	nswer in 7 :	above is no	nlease indic	ate by stating what	measures vo	ou have tal	ken
			-	g vy stating what	•		
	_						
17) List 3 cl	hallenges vo	ou are facin	g in disability	mainstreaming act	ivities		
,	•		•				
ŕ							
,							
18) Recomr	nend three v	vays which	disability mai	nstreaming in DeK	UT can be in	nproved	
		•	•			-	
ii)							
iii)							
SECTION D:	ATTITUDI	E AND CO	NDUCT OF	STAFF TOWARI	OS PWDS		
Please provide	information	on attitude	s and legal iss	sues concerning nor	n-discriminat	ion of PW	/Ds
by indicating	to what ex	tent you ag	gree or disag	ree with the follo	wing statem	ent. Use	the
following like	rt scale of	Strongly A	Agree = 5,	Agree = 4, Neut	cral = 3, Di	isagree =	: 2,
strongly Disag	gree = 1 to r	ate your re	sponse.				
NO					5	4 3 2	2 1
i. "Di	sability" is	specificall	y mentioned	as a prohibited g	round of		
disc	crimination.						

ii.	There is existence of affirmative measures against Persons with
	disabilities
iii.	We have legal and administrative remedies for persons who have
	been subject of discrimination on the basis of disability
iv.	We have established plans to have all our facilities and services
	accessible for Persons with disabilities
v.	We have established accessibility requirements for public
	procurement for persons with disability
vi.	There are plans to have certified sign language interpreters in our
	institution.
service	your opinion is the university doing enough to include persons with disabilities in on?
•••••	

Thank you for your responses

APPENDIX III

RESEARCH QUESTIONNAIRES

AWARENESS OF PERSONS WITH DISABILITIES BY UNIVERSITY LIBRARY STAFF

I take this opportunity to invite you to participate in my research study of masters of library and information studies. You are requested to complete this anonymous questionnaire with the assurance that the information you give will be handled with uttermost confidentiality. Please give your answer by putting a $(\sqrt{})$ against the most appropriate response in your opinion or by writing on the provided space where necessary.

SECTION A: GENERAL INFORMATION

1)	Designation			
2)	Gender			
	Male		Female	
3)	Work experie	ence		
	0-5 years		5-10 years	
	10-15 years		over 15 years	
4)	Kindly indica	te your current level of educa	tion by ticking the appr	ropriate box.
	Phd			
	Masters			
	Bachelors			
	Diploma			
	Others			
SECT	ION B: AWA	RENESS, INFORMATION	ACCESS	
5)	Are you awar	re of the existence of persons v	with disabilities in the u	university?
	Yes		No	
6)	Indicate by	ticking in the box provided	how often you inter	ract with persons with
	disabilities in	in the library in service provi	sion.	
	Frequently			
	Rarely			
	Seldom			

	Never					
7)	What the serv	vices/help did y	ou give to the	person?		
8)	disabilities. i) ii)	aree challenges				·······
9)	Do you have	any training for	r giving service	es to persons li	ving with disab	ilities?
	Yes		No		Not sure	
11)	you have und i) ii) If the answer i) iii) iii) iii) iii) ION C: INF	r is no list down	n 3 training nee	eds that you wo	ould like to und	ergo.
	BILITIES How would a	vou rete vour n	rangradnass in	offering suppo	ort to the inform	nation services of
12)	persons with	_	repareuness m	offering suppo	ort to the inform	nation services of
	Excellent Very good Good	answer in the second		Fair Poor		
13)	five-point lik		ongly Agree =	5, Agree $=$	4, Neutral = 3	Use the following 3, Disagree = 2,

No.	Library services 5 4 3 2 1
i.	The university has a policy that guides in service provision to
	persons with disabilities
ii.	The library facility has access ramps
iii.	The library has access washrooms for PWDs
iv.	Information materials in the library are accessible to all PWDs in
	Easy to read and print formats such as braille
v.	information equipment is accessible and friendly for reading and
	learning.
vi.	Persons with disabilities are given specialized training and
	assistance on literature searches
vii.	Library guides are adequate and visible for all users including
	PWDs
14) Whio	ch services do you think the library is not offering to students with disabilities?
i. ii.	
iii.	
iv.	
	our opinion what do you think should be done in order to increase information access
-	ersons with disabilities?
i.	
ii. 	
iii.	
iv	

Thank you for your response

APPENDIX IV

RESEARCH QUESTIONNAIRES

PERSONS LIVING WITH DISABILITIES AT DEKUT

FACILITIES FOR PWDS FOR ACCESSING INFORMATION SERVICES

I take this opportunity to invite you to participate in my research study of masters of library and information studies. You are requested to complete this anonymous questionnaire with the assurance that the information you give will be handled with uttermost confidentiality. Please give your answer by putting a $(\sqrt{})$ against the most appropriate response in your opinion or by writing on the provided space where necessary.

SECTION A: GENERAL INFORMATION

1)	Gender		
	Male	Female	
2)	Kindly indicate your current le	evel of education by ticking th	ne appropriate box.
	Phd		
	Masters		
	Bachelors		
	Diploma		
	Others		
3)	Year of study		
4)	How would you classify your	disability? (optional) Please of	check all that apply
	Hearing impairment		
	Mobility impairment		
	Visual impairment		
	Speech impairment		
	Other: (please specify)		
5)	Specify kind of disability		
	Partial disability	otal disability \square	

SECTION B: LIBRARY INFORMATION SERVICES

1)	How often do	you access the univ	versity library for scholar	rly information?
	Daily		Rarely	
	Seldom		Never	
2)	What is your	experience in access	sing the library and infor	rmation resources?
	Good			
	Satisfactory			
	Frustrating			
	Challenging			
3)	What informa	tion services were y	you able to access from the	he library?
4)	How often d	o you need assist	ance from the library	staff when accessing scholarly
	information?			
	Daily		Rarely	
	Seldom		Never	
5)	Do you have	sufficient access to	equipment and technolo	gy in the library related to your
	needs?			
	Yes		No	
6)	What is your	opinion on the inter	net and online resources	provided by the library?
	Excellent		Good	Fair \square
	Poor			

SECTION C: LIBRARY FACILITIES AND SERVICES

7) Do you agree or disagree with the following statement to any extent? Use the following five-point likert scale: Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, Strongly Disagree = 1 to rate your response.

No.	Library services	5	4	3	2	1
1.	Library staff are friendly and helpful					
2.	I have been trained by Library staff on information searching					
	skills					
3.	The library opening and closing hours are appropriate for me					
4.	The information materials provided meet my information needs					
5.	The library has access to good internet connectivity					
No.	Library infrastructure	5	4	3	2	1
1.	The library has sufficient sitting spaces that I can access and study					
2.	Library furniture and computer hardware are adjustable and easy					
	to use					
3.	Library signs and directions are clear					
4.	Information materials are provided in the format I can use					
5.	Sanitary facilities are accessible and well maintained					
Wha	at do you feel should be done to improve services offered to you by the	e lił	orar	y?		
i.						
ii.						
iii.						
iv.						-
V						

Thank you for your responses

APPENDIX V

RESEARCH WORK PLAN

ACTIVITIES	TIME FRAME											
	Weeks	3	1	2	1	1	1	1	1	2	1	1
Topic selection, proposal writing, and Board of Postgraduate Studies submission												
Getting ready for data collection												
Data analysis												
Thesis writing												
Review of a thesis draft												
Submission of draft theses corrected												
Submission of final thesis to Board of Postgraduate Studies												
Thesis defense												
Corrections and final submission of thesis												
Presentation on conferences and seminars												
Preparing papers for journal publication												
TOTAL								16				

APPENDIX VI

BUDGET PLAN

NO.	ITEMS	SPECIFICATIONS	QUANTITY	KSHS	KSHS
				UNIT	TOTAL
				COST	AMOUNT
1.	Printing paper	A4, high quality	10 reams	500.00	5,000.00
	✓ Printing proposal				
	drafts				
	✓ Printing				
	✓ questionnaires				
	✓ Printing interview				
	schedules				
	✓ Printing final copies				
2.	Printer tonner		2	7,000.00	14,000.00
3.	Stationary	A4, high quality	4 pads	50.00	2000.00
	✓ Writing pad		4 pens	20.00	80.00
	✓ Pens				
4.	Subsistence				
	✓ Transport				8,000.00
5.	Data analyst		1	30,000.00	30,000.00
6.	Equipment				
	✓ Internet bundles		1	5,000.00	5,000.00
	✓ Phone & airtime			5,000.00	5,000.00
7.	Binding of final copies of	Cloth binding	6 copies	5,000.00	30, 000.00
	thesis	quality			
8.	Contingencies			10,000.00	10,000.00
9.	Publishing Seminar			30,000.00	30,000.00
GRA	ND TOTAL				139,080.00

APPENDIX VII

APPROVAL FROM UNIVERSITY OF NAIROBI



UNIVERSITY OF NAIROBI

FACULTY OF ARTS

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

Telephone: +254 20 318262, Ext. 28095 Telegram: Varsity

Fax: +254 20 2245566 dnjirainc@noubl.ac.ke

P.O. Box 30197- 00100 GPO Naitobi, Kenya.

Out Ref: UON/CHSS/FOA/DLIS/303

14th June 2018

To whom it may concern

Dear Sit/Madam,

RE: Beatrice Luvale: C54/86168/2016

The above named is a bonafide student at the University of Nairobi undertaking a Master of Library and Information Science (MLIS), at the Department of Library and Information Science.

She has successfully completed her course work and has been cleared by the Department to collect data for her research project "Institutional Strategies in Addressing Persons with Disabilities Accessing Information Resources at Dedau Kımathi University of Technology Library," which is a requirement for the award of the degree.

Your support towards accomplishing the research study will highly be appreciated.

Yours faithfully,

Dr. Durothy Njiraine

Ag. Chairperson Department of Library & Information Science (DLIS)

APPENDIX VIII

APPROVAL FROM DEDAN KIMATHI UNIVERSITY

20th September 2021 Mr. Beatrice Luvale Senior Library Assistant Private Bag - 10143, Dedan Kimathi Nyeri

The Dean of Graduate School,
Dedan Kimathi University of Technology,
Private Bag - 10143, Dedan Kimathi
Nyeri

To: Whom it concerns

Ref: Request to Carry Out Research on Information Access for Persons Living with Disabilities at DeKUT

My name is Beatrice Nasimiyu Luvale I am undertaking a master's course in library and information science at the University of Nairobi. As part of requirement to complete my master's study I am conducting a research titled "implementing institutional policies for persons living with disabilities in accessing information resources at Dedan Kimathi University of Technology library". This project will be conducted under the supervision of Dr. Dorothy Njiraine and Dr. Grace Irura University of Nairobi department of Library and Information Science.

I am hereby seeking your consent to approach various groups who are my target sample. These are library staff, the disability mainstreaming committee, and persons living with disabilities at DeKUT. I have provided you with a copy of my project proposal as well as a copy of the approval letter from the University of Nairobi.

Thank you for your time and consideration in this matter.

Yours sincerely,

Beatrice Nasimiyu Luvale

DEDAN KIMATHI UNIVERSITY
OF TECHNOLOGY
DIRECTOR
SED 2221
SIGN: SED 2221
SIGN: SED 2221
AND RESEARCH
P.O. BOX 857 - 10100 NYERI

APPENDIX IX RESEARCH LICENSE



85

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is Guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014

CONDITIONS

- The License is valid for the proposed research, location and specified period
- 2. The License any rights thereunder are non-transferable
- The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research
- 4. Excavation, filming and collection of specimens are subject to further necessary clearence from relevant Government Agencies
- 5. The License does not give authority to tranfer research materials
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- The Licensee shall submit one hard copy and upload a soft copy of their final report (thesis) within one year of completion of the research
- 8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice

National Commission for Science, Technology and Innovation off Waiyaki Way, Upper Kabete,
P. O. Box 30623, 00100 Nairobi, KENYA
Land line: 020 4007000, 020 2241349, 020 3310571, 020 8001077

Mobile: 0713 788 787 / 0735 404 245
E-mail: dg@nacosti.go.ke / registry@nacosti.go.ke
Website: www.nacosti.go.ke