

**POLICY AND PROVISION OF LEARNING SUPPORTS AND
ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES IN KENYAN PUBLIC
UNIVERSITIES**

AGNES WANJA WANJAU

REG. NO. E83/24581/2010

**A RESEARCH THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS
FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN THE SCHOOL
OF EDUCATION OF KENYATTA UNIVERSITY**

OCTOBER, 2016

DECLARATION

I declare that this research thesis is my original work and has not been presented in any other university/institution for consideration. The thesis has been complemented by referenced sources duly acknowledged. Where text, data (including spoken words), graphics, pictures or tables have been borrowed from other sources, including the Internet, these are specifically accredited and references cited in line with anti-plagiarism regulations.

Sign.....**Date**.....

Agnes Wanja Wanjau
Reg. No. E83/24581/2010

We confirm that the work reported in this thesis was carried out by the candidate under our supervision as University supervisors.

Sign.....**Date**.....

Dr. Mueni Kiio
Senior Lecturer,
Department of Educational Communication and Technology
Kenyatta University.

Sign.....**Date**.....

Dr. Rachel W. Kamau-Kang'ethe,
Senior Lecturer,
Department of Early Childhood Studies
Kenyatta University

Sign.....**Date**.....

Dr. Patrick Mwangi Karimi,
Senior Lecturer,
Department of Applied Physics and Space Science,
Technical University of Kenya, Nairobi

DEDICATION

Dedicated to the millions of people with disabilities whose voices are not heard, and all those who endeavour to accord them equal opportunity in life.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	xiv
LIST OF FIGURES	xv
ACKNOWLEDGEMENTS	xvi
ABBREVIATIONS & ACRONYMS	xvii
ABSTRACT	xix
CHAPTER ONE	1
INTRODUCTION AND BACKGROUND TO THE STUDY	1
1.0 Introduction	1
1.1 Background to the Study	1
1.2 Statement of the Problem	11
1.3 Purpose of the Study	12
1.4 Objectives of the Study	12
1.5 Research Questions	13
1.6 Significance of the Study	13
1.7 Limitations of the Study	14
1.8 Delimitations of the Study.....	14
1.9 Assumptions of the Study	14
1.10 Theoretical and Conceptual Framework	15
1.10.1 Theoretical Framework	15
1.10.1.1 Goffman’s Theory of Stigma	15

1.10.1.2 Social Model of Disability	17
1.10.1.3 Universal Design Philosophy	21
1.10.2 Conceptual Framework	23
1.11 Operational Definition of Terms	25
CHAPTER TWO	27
LITERATURE REVIEW	27
2.1 Introduction	27
2.2 Definition of Disability	28
2.3 Learning Supports and Accommodations	30
2.3.1 Learning Supports	30
2.4 Accommodations.....	31
2.4.1 Presentation Accommodations	32
2.4.2 Response Accommodations	32
2.4.3 Test or Examination Accommodations	32
2.4.4 Scheduling Accommodations.....	33
2.4.5 Time allocation.....	33
2.4.6 Breaks.....	34
2.4.7 Schedule adjustments	34
2.4.8 Setting Accommodations	34
2.4.9 Accessibility	35
2.4.10 Preferential seating.....	35
2.4.11 Specialized lighting or light filters	35
2.4.12 Acoustic treatment.....	35
2.4.13 Reasonable Accommodations	36
2.5 Barriers to Participation in Learning for SWDs in Higher Education	37
2.5.1 Barriers Encountered by Students Who Have Hearing Impairments.....	38

2.5.1.1 Academic accommodations.....	40
2.5.2 Barriers Encountered by Students with Orthopedic/ Mobility Impairments.....	40
2.5.2.1 Academic accommodations.....	42
2.5.3 Barriers Encountered by Students with Visual Impairments	42
2.5.3.1 Academic accommodations.....	43
2.5.4 Barriers Encountered by Students with Speech and Language Disorders	43
2.5.4.1 Accommodations.....	45
2.5.5 Barriers Encountered by Students Who Have Albinism	45
2.5.5.1 Academic Accommodations	45
2.5.6 Barriers Encountered by Students Who Have Epilepsy.....	46
2.5.6.1 Academic Accommodations	46
2.6 Legal Framework on Provision of Learning Supports and Accommodations for SWDs in Higher Education.....	47
2.6.1 International Instruments that Guarantee Right to Education for SWDs.....	47
2.6.1.1 International instruments.....	48
2.6.2 Legal and Legislative Framework for Provision of Learning Supports and Accommodations to SWDs in Higher Education: US, Canada, UK, Australia, and South Africa	50
2.6.2.1 United States of America (USA).....	51
2.6.2.2 Legal framework for equality and non- discrimination	51
2.6.2.3 The Section 504 of the Rehabilitation Act of 1973.....	51
2.6.2.4 Nondiscrimination in Pre-admission, Admissions, Recruitment, and Accommodation	52
2.6.2.5 Nondiscrimination in housing	54
2.6.2.6 Nondiscrimination in financial aid.....	54
2.6.2.7 Nondiscrimination in nonacademic services.....	54
2.6.2.8 The Higher Education Opportunity Act (HEOA)	55

2.6.3 Canada	55
2.6.3.1 Legal Framework for Higher Education	55
2.6.4 United Kingdom (UK)	56
2.6.4.1 The Legal Framework for Equality and Non-Discrimination.....	56
2.6.4.2 Disability Equality Duty (DED) 2006: Proactive Approach to Disability.....	56
2.6.4.3 Legal Framework for Higher Education	57
2.6.5 Australia	57
2.6.5.1 Legal Framework for Equality and Non- Discrimination	57
2.6.5.2 Legal Framework for Higher Education	58
2.6.6 South Africa	58
2.7 Legislative and Policy Framework for Provision of Learning Supports and Accommodations for SWDs in Higher Education in Kenya.....	59
2.7.1 The Persons with Disabilities Act (PDA) (2003).....	59
2.7.2 The Special Needs Education Policy	64
2.8 The Status of Kenyan Higher Education System in Relation to SWDs.....	66
2.9 Higher Educational Policy in Kenya.....	69
2.10 Policy and Practice for SWDs in Kenya	71
2.11 Education Policies for SWDs in Kenya	73
2.12 Higher Education Policy on Disability in Kenya	74
2.13 Disability Policies in Institutions of Higher Learning in Developed Countries: USA, Canada and UK	74
2.13.1 Accommodation Policies and Procedures	74
2.13.2 Policies and Procedures on Recruitment and Admission of SWDs in Higher Education	76
2.13.3 Recruitment and Attraction Process.....	77
2.13.4 Admission Process for SWDs in USA Higher Education.....	81

2.14. Types of Learning Supports and Accommodations Provided to SWDs in Universities in United States of America	84
2.15 Empirical Studies Conducted on Provision of Learning Supports and Accommodations to SWDs	85
2.16 Research Studies on Experiences of Faculty in Teaching SWDs	92
2.17 Research Studies on the Views of SWDs Regarding Accommodations in Higher Education.....	95
2.17.1 Appropriateness of Accommodations for SWDs	97
2.18 Models of Provision of Learning Supports and Accommodations for Students with Disabilities in Public Universities	99
2.19 Summary of Literature Review	101
CHAPTER THREE	103
METHODOLOGY	103
3.1 Introduction	103
3.2 Research Design	103
3.2.1 Variables.....	104
3.3 Locale of the Study	105
3.4 Target Population	105
3.5 Sampling Techniques and Sample Size	105
3.5.1 Sampling Techniques	105
3.5.2 Sample Size	106
3.6 Research Instruments	107
3.6.1 Students' Questionnaire	107
3.6.2 Administrator Questionnaire	108
3.6.3 Support Services Questionnaire	108
3.6.4 E-Learning Questionnaire for Faculty.....	109

3.6.5 Interview Schedules	109
3.6.6 Focus Group Discussions	110
3.6.7 Desk Research	111
3.6.8 Observation	111
3.7 Pilot Study	111
3.7.1 Validity	111
3.7.2 Reliability	112
3.8 Data Collection Procedure	115
3.9 Data Analysis and Presentation	117
3.9.1 Qualitative Data	117
3.9.2 Quantitative Data	119
3.10 Logistical and Ethical Considerations	119
CHAPTER FOUR	121
PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION	121
4.1 Introduction	121
4.2 Research Questions	122
The following research questions guided the current study:	122
4.3 Response Rate of the Participants	123
4.4 Policies Pertaining to SWDs that Exist in Kenyan Public Universities	126
4.4.1 Definitions of Disability as Provided by the Respondents	126
4.4.2 Enrolment of SWDs in Kenya Higher Education	127
4.4.3: Status of policy for students with disabilities in Kenyan Public Universities	131
4.4.4 Accessibility to Physical Environment	132
4.4.5 Future Plans for Provision for Students with Disabilities	133
4.5 The Range and Types of Support and Accommodations Provide to SWDs in Kenyan Public Universities	150

4.5.1 Transportation	158
4.5.2 Campus Orientation.....	159
4.5.3 On-campus Housing.....	160
4.5.4 The Views of Faculty Members Regarding Challenges Faced in Supporting SWDs....	164
4.6 Views of Students with Disabilities Regarding Appropriateness of Accommodations offered at Kenyan Public Universities	170
4.6.1 Recruitment/Admission Process	171
4.6.2 Accessibility of Programs	175
4.6.3 The Registration Process	177
4.6.4 Campus Orientation.....	178
4.6.5 Course Instruction and Testing	179
4.6.6 Adaptive Aids and Adaptations in Teaching Strategies.....	184
4.6.7 Financial Aid	185
4.6.8 Academic Requirements	192
4.6.9 Accommodation Procedures	194
4.6.10 Technological Environment	204
4.6.11 Information Environment.....	207
4.6.12 Student Life	209
4.6.13 Physical Accessibility	212
4.6.14 Attitudes Towards SWDs.....	213
4.7 Gaps that Existed Between Policy and Practice Regarding Accommodations for SWDs in Kenyan Public Universities.....	217
4.7.1 Gap in Recruitment	217
4.7.2 Gap in Registration.....	219
4.7.3 Gap in Orientation.....	219
4.7.4 Gaps in Financial Support	220

4.7.5 Gap in Accommodations and Other Auxiliary Services	220
4.7.6 Gap in Information Environment	221
4.7.7 Gap in Technology	222
4.7.8 Gap in Students' Welfare	222
4.7.9 Gap in Training Staff	225
4.8 Model for Provision of Learning Supports and Accommodations to SWDs in Kenyan Public Universities	229
4.8.1 Accessibility Services Focused Directly to the Student (Level 1)	231
4.8.1.1 Students' Needs, Data Capture & Collation Service (SNDC & CS)	232
4.8.1.2 Ability Diagnostic Service (ADS).....	232
4.8.1.3 Individual Assistive Technologies Service (IATS).....	233
4.8.1.4 Transportation Service (TS)	233
4.8.1.5 Accessible Instructional Resource Service (AIRS).....	233
4.8.1.6 Psychological Guidance and Counseling Service (P G&CS)	234
4.8.1.7 Sign Language Interpreting and Video Relay Service, C-Print and Computer Assisted Real Time Captioning (SLI, VRS, C-P & CART)	234
4.8.1.5.8 Volunteering Service (VOS)	234
4.8.2 Accessibility Services Impacting the Student's Surroundings (Level 2)	235
4.8.2 .1 Infrastructure Accessibility Service (IAS)	235
4.8.2 .2 Barrier-Free Libraries and Laboratory Service (B-F L & LS)	236
4.8.2 .3 Procedures Services (PS)	236
4.8.2 .3 Personnel and Volunteers Induction Service (PVIS)	236
4.8.3 Accessibility Enhancing Services (Level 3).....	237
4.8.3 .1 Web Accessibility Appraisal Service (WAAS)	237
4.8.3 .2 Events Planning Service (EPS)	238
4.8.3 .3 Expertise Dissemination Service (EDS)	238

4.8.3 .4 Research on Learning Access Service (RLAS).....	238
4.8.4 Implementation.....	239
4.8.5 Organization.....	239
CHAPTER FIVE	241
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	241
5.1 Introduction	241
5.2 Summary of Research Findings	241
5.2.1 Policies Pertaining to SWDs in Kenyan Public Universities	241
5.2.2 The Range and Types of Support and Accommodations Provided to SWDs at Kenyan Public Universities	244
5.2.3 The Views of Faculty Members Regarding Challenges Faced in Providing Learning Supports to SWDs	245
5.2.4 Views of SWDs Regarding Adequacy and Appropriateness of Accommodations Offered at Kenyan Public Universities	245
5.2.5 Gaps that Existed Between Policy and Practice Regarding Accommodations for SWDs in Kenyan Public Universities.....	248
5.2 Study Conclusion	250
5.3 Recommendations	252
5.3.1 Recommendations to Kenyan Government and Government Agencies	254
5.3.2 Recommendations to Public Universities	258
5.4 Proposed Model of Provisions for SWDs in Higher Education.....	265
5.5 Areas for Further Research	267
REFERENCES	269
APPENDICES	292
Appendix A: Students' Questionnaire.....	292
Appendix B: Faculty/Staff Questionnaire	302
Appendix C: Faculty/Staff Interview Schedule	304

University Demographics and Budget Information	304
Appendix D: Support Services Questionnaire	306
Appendix E: Administrator Survey	314
Appendix F: Questionnaire for Institutional Administrators	316
Appendix G: Staff Interviews	320
Appendix H: Student Focus Group Discussions	322
Appendix I: eLearning Questionnaire for Faculty	324
Appendix J: Consent form	327
Appendix K: Research Authorization	328

LIST OF TABLES

Table 3.1 Composition of the Study Sample.....	107
Table: 4.1 Triangulation of Data in Answering Research Questions 1-4	123
Table 4.2: Distribution of Students by Year of Study.....	124
Table 4.3 Definitions of disability.....	126
Table 4.4 Document Analysis - Policy Statement on Disability.....	130
Table 4.5 Status of Policy on Disability in Kenyan Public Universities.....	131
Table 4.6 Accessibility to physical facilities.....	132
Table 4.7 Future Plans for Provision for Students with Disabilities	133
Table 4.8: Documentary Analysis- How Disability Issues are addressed in University Strategic Plans	134
Table 4.9: Document Analysis- University Disability Mainstreaming Policies	144
Table 4.10: Accommodations and Support Services Provided by Kenyan Public Universities to SWDs	151
Table 4.11: Frequency (%) Accommodations Utilized by Students in Kenyan Public Universities.....	155
Table 4.12 Frequency (%) Accommodation Selection Issues Opinion	199
Table 4.13 Frequency (%) for Accommodation Issues Importance Rating	203
Table 5.1: Policy Areas for Kenyan Public Universities to Address	263

LIST OF FIGURES

Figure 1.1: Conceptual Model.....	24
Figure 4.1: Distribution of administrators per university.....	125
Figure 4.2: Reported Disabilities	125
Figure 4.3: Frequency (%) Receiving Accommodations	162
Figure 4.4: Frequency (%) received training or professional training in accommodating for disabilities in distance delivered courses	166
Figure 4.5: Students' Field of Study	174
Figure 4.6: Frequency (%) Receiving Financial Aid	186
Figure 4.7: Frequency (%) Receiving Education Bursary	187
Figure 4.8: Frequency (%) Receive Financial Aid from University	188
Figure 4.9: Frequency (%) Receiving Financial aid from NCPWDS	188
Figure 4.10: Financial Aid from NCPWDS Discontinued.....	189
Figure 4.11: Frequency (%) Employment.....	189
Figure 4.12: Frequency (%) Financial Independence	190
Figure 4.13: Frequency (%) membership in clubs and organizations.....	212
Figure 4.14: Accessibility division provision model	231

ACKNOWLEDGEMENTS

My deepest appreciation is here expressed to my supervisors Dr. Mueni Kiiro, Dr. Rachel W. Kamau-Kang'ethe, and Dr. Patrick Karimi who have provided the needed counsel, support and time in the preparation of this thesis. I am profoundly indebted to Prof. Joanna-Osborne Masingila of Syracuse University, New York, USA, for her invaluable guidance through data analysis. Many people have contributed to this study, from the senior administrators to faculty members to the support staff of the studied universities. I am grateful for their views and opinions, which assisted in understanding of many of the issues involved. I am however most indebted to the students who participated in this study, whose openness and willingness to share their innermost thoughts and experiences with me led to such rich data. I hope, as they deeply hoped, that the findings will bring about change and be positively responded to. My thoughts go to my dear mother, Assenath Wanjau, who died before I enrolled for higher education and would have been delighted for my sustained focus on getting into higher learning. I am very grateful to Kenyatta University for financial support in form of tuition fee, without which this study would not have been possible.

ABBREVIATIONS & ACRONYMS

AT	Assistive Technology
CHE	Commission on Higher Education
CWD	Children with Disabilities
DOE	Department of Education
DSO	Disability Services Office
EFA	Education For All
FGDs	Focus Group Discussions
HEIs	Higher Education Institutions
HELB	Higher Education Loans Board
ILO	International Labour Organization
JAB	Joint Admissions Board
KESSP	Kenya Educational Sector Support
KNBS	Kenya National Bureau of Statistics
KNCHR	Kenya National Commission on Human Rights
KNSPWD	Kenya National Survey on Persons with Disabilities
LWSN	Learners with Special Needs
LWDs	Learners with Disabilities
MDGs	Millennium Development Goals
MOE	Ministry of Education
MOHEST	Ministry of Higher Education, Science & Technology
NCAPD	National Coordinating Agency for Population and Development
NCPWDS	National Council for Persons with Disabilities

SNEP	Special Needs Education Policy
SNE	Special Needs Education
SWDs	Students with Disabilities
SSI	Semi-Structured Interviews
PWDs	People with Disabilities/Persons with Disabilities
UNESCO	United Nations Educational Scientific and Cultural Organization
VLE	Virtual Learning Environment

ABSTRACT

The purpose of this study was to examine policy and provision of learning supports and accommodations for students with disabilities (SWDs) in Kenyan Public Universities. An exploratory descriptive survey design was used. Questionnaires, interview schedules, focus group discussion guides, observation checklists and desk research were used as data collection instruments in the study. Criterion sampling was used to select three institutions out of 7 Public Universities as sample group of the study. Total population sampling was employed for SWDs who participated in this study. The faculty, administrators and service providers who participated in this study were selected purposefully. The data obtained by questionnaire were presented and analyzed quantitatively by using descriptive statistics. On the other hand, the data obtained by the use of interview schedules, focus group discussion guides, observation checklist and desk research were presented and analyzed qualitatively. One of the key findings of this study was that two of the studied Kenyan Public Universities had disability policies, however, they had not been released to the public and their implementation was minimal. For the third university the policy was still in draft form due to delays by the administration in ratifying it. A profound finding of this study was that the universities provided few types of accommodations to SWDs. The accommodations provided were also of a narrow range; therefore students did not have an opportunity to choose supports that suited their specific individual needs. The other key finding was that faculty (lecturers) in the Public Universities felt ill prepared and supported to teach SWDs. An overwhelming majority of the members who participated in this study, (90 %), said they had not received any training/professional training in teaching SWDs. Furthermore, well over half of those who taught distance courses indicated that they had not received training in accommodating SWDs in eLearning. A large proportion of the faculty (over 90%) also indicated that they were not familiar with the principles of Universal Design for Learning. Another profound finding was that SWDs had negative experiences in requesting for supports and accommodations in Public Universities. They were not aware of what accommodations and supports were available to them nor did they receive effective accommodations or supports to enable them participate fully in university education. Although some lecturers were willing to provide accommodations if a student requested, other lecturers were not willing to provide those accommodations. The study found that although disability issues were mentioned in some university policy documents, there were wide gaps between policy and provision of accommodations to SWDs in these institutions of higher learning, as these policies had hardly been implemented. Consequent to these findings a number of recommendations have been made to improve policy and provisions for SWDs at Public Universities in Kenya. First, Public Universities should formulate clear-cut disability policies that are consistent with the Kenya Constitution (2010) and the CRPD to ensure that SWDs are entitled to the required accommodations as mandated by the law. Second, the universities should do a detailed research on assistive devices available to SWDs in the market and provide these to the students. Third, Public Universities should design an appropriate program for training of lecturers on handling SWDs in order to make teaching effective. This program should incorporate the principles of Universal Design. Fourth, Universities should provide necessary supports and accommodations to SWDs with regard to policies, programs and procedures in order to afford them equal opportunity in education. Finally; this study provides a Model for Provision of Learning Supports and Accommodations to SWDs in Kenyan Public Universities, which the universities should adopt in order to give structure to provisions.

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.0 Introduction

This chapter addresses the following aspects of the study on the policy and provision of learning supports and accommodations for students with disabilities (SWDs) in Kenyan Public Universities: the background upon which this study was based; the statement of the problem; purpose of the study; objectives of the study; research questions; significance of the study; delimitations and limitations of the study; assumptions of the study and the conceptual and theoretical framework upon which this study was based, and finally the operational definitions of terms.

1.1 Background to the Study

Education in general, and post-secondary education in particular, is a forecaster of beneficial employment in significant professions, opening chances for professional growth, and therefore enhancing quality of life (Duta, Scguri-Geist, & Kundu, 2009; Getzel, Stodden, & Brief, 2001). This is even more critical for persons with disabilities (PWDS), whose range of employment is restricted to jobs that necessitate fewer physical abilities and skills (Kendall & Terry, 1996; McGeary, Mayer, Gatchel, Anagnostis & Proctor, 2003). Ease of access to schooling is consequently critical for individuals with disabilities (Drake, Gray, Yoder, Pramuka & Llewellyn, 2000; Dorwick, Anderson, Heyer & Acosta, 2005; Inbar, 2003; Inbar, 1991; Getzel et al., 2001; Rimmerman & Araten-Bergman, 2005). Due to the negative impact of disability on carrying out major bodily functions and consequent negative impact on learning, it is necessary to provide assistance to persons with impairments to enable them participate in higher education

programs and succeed. The number of SWDs continues to rise in higher education. It is a legal requirement that universities should afford these students opportunity on equal basis with their non-disabled counterparts. The way to do this is by providing supports and accommodations to ameliorate the impact of disability on learning. However, research indicates that SWDs are still disadvantaged. Educational supports exist for these students, however, little is known regarding their experiences of these supports and of the overall learning environments.

Regardless of the revolution in social and legislative policies on provision of equal opportunities for education and employment for PWDs, a lot still needs to be done (American with Disabilities Act, 1990; Canadian Human Rights Act, 1985; Individuals with Disabilities Education Act, 1997; Quinn & Waddington, 2009; United Nation Convention on the Rights of Persons with Disabilities, 2006). Approximately 8-14% of student population enrolled in postsecondary education institutions in the US and Great Britain has a disability, and in these nations over 18% of people of working age have disabilities (Americans with Disabilities Report, 2002 at http://www.census.gov/Press-Release/www/releases/archives/aging_population/006809.html).

In Israel there are no comprehensive statistics on SWDs but a government commission evaluated the implementation of the Equal Rights for Persons with Disabilities Act (2005), and recognized that universities still do not meet the conditions on inclusion of PWDs into the society (Admon, 2007; Laron report, 2005). The commission observed that the more advanced the level of education of PWDs, the higher the likelihood for these individuals to get incorporated into culture, and into service specifically, so that they can gain financial independence and lead dignified lives. The commission also recommended that action should be taken expand access to universities for PWDs on the policy point and in hold up agenda for learners (Laron Report,

2005). The National Insurance Institute consequently provided facilities to increase educational opportunities available to PWDs (Ramot & Feldman, 2003); resources were made available for making infrastructural modifications and to increase workstations, assistive equipment, and other modified teaching and learning tools, in addition to scholarships to learners (Inbar, 2003). It is presumed that these initiatives boosted the number of SWDs accessing universities education in Israel.

Chalwe and Desleighe (2012) identified physical environment as the major contributing factor to the inclusion of PWDs in education. An environment is accessible if an individual with any impairment can function within it independently with minimal or no assistance. This enhances participation and access to facilities, services and opportunities within the education environment. Failure by universities to meet the accessibility needs increases social and economic burden to PWDs. The researchers point out that an enforceable legal mechanism is the main way of ensuring compliance with accessibility standards. The study significantly emphasizes the need for an accessible environment to PWDs. It also emphasizes the need to ensure enforcement of provisions of the law on accessibility.

Projected higher enrolments of SWDs have propelled higher learning institutions to develop programs to cater for the needs of these students. Specific programs have been launched for students who are visually impaired, those with learning disabilities, and those with psychiatric conditions (Oved, 2007; Sasson, Greenshpon, Lachman & Bonny, 2003; Stodden, Roberts, Picklesimer, Jackson & Chang, 2006). Nevertheless, study commenced for legislation purposes in 2008 established inconsistencies in development, assessment criterion, entry conditions, and of supports and supplementary programs created by the various learning institutions (Yorgan,

2006). Chataika, Mckenzie, Swart & Cleophas (2012) point out that, obstacles that exist in institutions, failure to provide reasonable accommodations, poor perceptions, discriminatory admission criteria, absence of policies on disability and resources deny SWDs equal educational opportunities in Africa. There is a need to create awareness among educational institutions about their duty to ensure they are accessible for SWDs as well as to make instruction and other aspects of student life inclusive. Among the necessary adjustments that institutions should make are provision of note takers, extra time on examinations, assignments and other tasks, assistive technology, permission to tape record lectures, speech software, flexible instructional strategies, sign language interpretation and non-discriminatory entry requirements.

Effective learning occurs when students are able to engage fully with the content and participate meaningfully in classroom interactions. Higher education in Africa has for a long time been a preserve for the wealthy and other privileged groups hence PWDs have generally been denied equal access. Currently the proportion of PWDS accessing higher education is below 1 % and their level of success is well below that of their non-disabled counterparts. Obstacles found within and outside institutions of higher learning pose challenges to accessing education. The most frequently reported barriers are legibility criteria that discriminate against individuals with disabilities, poor attitude towards disability, environments that make it difficult for the individuals to maneuver around, and a curricular that are not flexible as well as assessment systems that discriminate against PWDs, consequently denying most of these individuals opportunities for higher education(MOE, 2009; Kochung, 2011).Provision of learning supports and accommodations and application of Universal Design principles (Burgstahler, 2007) in higher learning is crucial in addressing these barriers in order to open higher education for SWDs and all those who are currently denied access on basis of individual characteristics such as race,

ethnicity, health status, language and culture.

In Kenyan context, although there is no formal statistics on the number of PWDs accessing higher education very few individuals who have impairments attain postsecondary education (Kochung, 2011). In cognizance of the fact that knowledge and skills are crucial for ensuring continued generation of wealth and diminishing destitution, the Government Kenya endeavoured to attain the Millennium Development Goals (MDGs) and Education For All (EFA). A landmark in the endeavor to make university education accessible to SWDs was the recognition by the Kenya Constitution (2010) in its Bill of Rights, of education as a fundamental human right in accordance with the international treaties and agreements. In an additional proposal to augment courses aimed in an effort to improve equivalent chances in schooling and the understanding of the right to schooling for SWDs, the state via the MOE, is putting in place the Kenya Education Sector and Support Program (KESSP). This is a partnership amid several international schemes, such as Education for All (EFA), the Millennium Development Goals (MDG) in addition to national commitments provided in the Constitution of Kenya (2010), the Kenya Vision 2030 and the Special Needs Education Policy, among others (KHCHR, 2011).

Lately, higher education institutions have endeavoured to offer framework to improve opportunities for SWDs to attain higher education. A few nations in Africa have gained ground in presenting disability-related enactment, yet a number of these laws have not yet been actualized. In other African nations, current national laws call for review so as to grant equal opportunity for PWDs. Enhancing legislation and usage procedures was recognized as one of the principle issues that needed to be given priority in the 'African Decade of Disabled Persons 1999-2009' (ILO, 2004).

Kenya has made substantial progress in 'Education For All' endeavour; however, there is yet a shortfall in giving access to all young people and implementation of specialized instruction. This is particularly so with regard to university education. The principle impediments identifying with implementation of education for learners with exceptional needs include: absence of clear directions on the implementation of an all inclusive education policy, absence of reliable information on individuals with disabilities, insufficient facilities and requisite knowledge and skills in assessment and handling of learners with disabilities and inappropriate programs of study for children with special learning needs (KESSP, 2005; Republic of Kenya, 2009). Unsuitable basic framework, shortage of specially trained manpower and physical resources exacerbate this state of affairs, consequently presenting great challenges in incorporating specialized instruction in mainstream education (MOE, 2009).

Lack of coordination and collaboration in service provision, placement of children in inappropriate programs, limited and costly learning and teaching resources as well as deficient monitoring of special learning institutions add to the list of challenges (Republic of Kenya, 2009). Consequently, institutions and the academic staff face challenges meeting the learning needs of CWDs and therefore force these learners to adjust to the learning environment as opposed to these institutions adjusting to the needs of the learners (Kochung, 2011). In spite of the vast number of individuals with special learning needs, the capacity to meet their educational needs is extremely low (Republic of Kenya, MOE, 2009). Progress of special education has been slow with a large number of CWDs still kept away from learning institutions and other support services. Also hindering access to education for PWDs are traditional and religious convictions that highly influence the way the society views disability. Many communities are sad attribute

disability to practices such as witchcraft and curses occasioned by violation of societal traditions by parents, or a condition that originates from angered spirits. Hence, the society usually reacts with fear and pity towards individuals with disabilities, which may lead to isolation of these individuals (Oloo, 2006; Monk & Wee, 2008). Nevertheless, some societies for instance, the Suba of Western Kenya treat people who have mental challenges with reverential respect mixed with fear. They believe that such children are deities reincarnate and should therefore be treated kindly, gently and with patience. The attribution of disability with the supernatural has been reported in many other Kenyan communities (Oloo, 2006). The way the society views disability plays a key role in deciding what rights, roles and responsibilities should be afforded to PWDs. The current dominance of the charity and medical models of disability in the society reflect the prevailing situation of PWDs in the country, particularly with regard to higher education. There is need to shift from the way society currently views PWDs, generally and specifically in Public Universities. Embracing the social model of disability will have a positive impact in provision of supports and removal of barriers for this population and therefore afford them an opportunity to pursue their dreams and live independent and fulfilling lives, just like everyone else.

As earlier noted, the Government of Kenya has continued to give some supports to PWDs (DRPI, nod). Nevertheless, it is recognized that only a small proportion of the population with disabilities benefit from these provisions and that they are inequitably allotted between and among different disabilities (MOE & MOHEST, 2012). Actually, SWDs at higher learning have not benefitted from these allocations. A huge proportion of PWDs live in destitution. This impacts negatively on their chances to acquire an education. As such there is an urgent need to create methods to enable this group of citizens attain an education that would help to diminish

their destitution levels, and make them independent and ready to contribute to nation building (Ingstad & Grut, 2007). Although there has recently been some notable progress in education of exceptional children in Kenya a lot of difficulties still face the special education sub-sector particularly at higher learning. For example, the extent of PWDS with access to higher education in Kenya is well below 1% (Kochung, 2003). For the most part, enrolling into university and getting actively involved in the learning process is still largely a challenge for most of the students. Notably too, the individual learning needs of these students remain unattended (MOE Kochung, 2011). This situation calls for urgent measures that would make higher learning more accessible for PWDs.

In accordance with universal declarations, agreements and guidelines, the Kenya Constitution (2010) assures all its citizens availability of health services, and education and stresses the necessity to provide resources and give support to needy groups. Articles 53, 54, 55, 56, 57, and 59 of the constitution have provisions on children's entitlement to mandatory basic education, with no fees obligations, whereby appropriate supports and programs are provided. In addition, they are entitled to access to all learning institutions and utilization of resources for PWDs that are provided in the common society to meet the needs and interest of the individual. This includes the use of Sign language, Braille or other appropriate methods of communication, and access to resources and assistive devices to assist in overcoming obstacles that are occasioned by the individual's impairment or condition. Likewise, there are entitlements for young people for "...applicable education and training; job opportunities; participating in and involvement of the small and disadvantaged categories of people in administration and other areas of life, increased

chances to access education and other sectors of the economy, as well as in job market” (Ministry of Education, 2012, p.23).

In addition, the Persons with Disabilities Act (PDA) (2003) accommodate entitlements of PWDs to attain equalization of opportunities for this category of citizens. Along these lines, to decrease the current disparity and to realize Education for All, the Ministry of Education designed a master plan for education of learners with exceptional needs. The ultimate objective of the strategy is to guarantee that underprivileged children and other learners with exceptional needs all over the country gain access to quality education. The goal is to embrace and execute the Special Needs Education Policy (MOE, 2012).

Throughout the recent four decades, the need for university education in Kenya has tremendously increased (Sifuna, 1998). This is evidenced by the rising numbers of students joining public and private higher education institutions, the mushrooming of private institutions of higher learning and the initiation of self-sponsored programs in universities (Sifuna, 1998). Student enrolment in state funded higher learning institutions in Kenya has increased very rapidly between 1964 (Sifuna, 1998) to date. With this increment in enrolment to advanced learning, a generally noteworthy number of SWDs are likewise joining higher education institutions.

In the research report on “Disabled Students at English Speaking Universities in Africa” by UNESCO (1997), it is stated that the “provisions” of supports and other auxiliary services for CWDs and young adults in African nations has improved in the previous decades and more

alternatives for studies are now available. According to this study, although quite a number of disabled students enrolled in universities, there was an absence of effective measures in providing equal opportunities to them. The study reasoned that postsecondary institutions in Africa are not ready to provide for the needs of SWDs. Three of the universities in Kenya, University of Nairobi (UoN), Moi University (MU) and Egerton University (EG) were included in the UNESCO (1997) study. According to the findings of this study, UoN had not articulated its policy regarding disabled learners. In regard to enrollment, the study showed that there were 40 disabled students, out of the total enrollment of 15,000 students in the university. Additionally, the UNESCO (1997) study showed that with regard to admission procedure the university applied an affirmative action for disabled students. Thus, according to the study SWDs in UoN received some considerations. Nevertheless, these supports were extremely insignificant. The study demonstrated that Egerton University had no policy regarding students with special learning needs; however, the university followed a general policy on non-discrimination. The learners are expected to furnish the university with any information on their impairment that would help them to get special support. Entry requirements were the same for all students, as well as available programs. The study showed that in Moi University there were about 50 visually and physically impaired students. Similarly to UoN and EG, the university had no policy on disability. All students had the same entrance requirements, which differ from time to time. Disabled students could enroll in any programmes available, in principle, but visually impaired students tended to enroll in languages, history and religious studies, whereas physically disabled choose any area of study. This is probably because these courses have less practical components that would require the sense of sight to accomplish. Kenyatta University and JKUAT were however not included in the UNESCO study. For that reason they were selected for

the current study in order to examine the status of SWDs in these institutions. University of Nairobi was also included in the current study to establish whether the status of provisions for SWDs has improved since the UNESCO (1997) study.

1.2 Statement of the Problem

There is clear evidence that a considerable effort has been made in Kenya to make higher education accessible to SWDs since the UNESCO (1997) study particularly with regard to the legislation. However, research on disabilities in higher education in Kenya lacks consistency in policy, of evaluation criteria, of entrance requirements, and of support and supportive programs developed by the different institutions. Thus the inclusion of SWDs in higher education institutions, and the resources dedicated to that purpose, called for an in-depth examination: how these students participate in academic and student life in general. Furthermore, legislation such as the Kenya Constitution (2010), Persons with Disabilities Act (2003) and the Special Needs Education Policy (2009) has resolved a number of important issues but also has generated numerous questions with respect to access, support, and accommodations for SWDs in institutions of higher learning. These institutions have legal obligations to provide learning supports and reasonable accommodations to SWDs to afford them equal opportunities. However, the current practice of providing learning supports/services and accommodations for SWDs within Public Universities has not been examined. Thus an opportunity presented itself for research within an area of study that could impact in a profound way access to quality education for PWDs. The current study therefore examined policy and provision of learning supports and accommodations for SWDs in Kenyan Public Universities. Goffman's theory of stigma, the Social Model of Disability (Oliver, 1990), the Universal Design for Learning (Aslaksen et. al,

1997), and the various international treaties, guidelines and statements on PWDs guided this study.

1.3 Purpose of the Study

This study aimed to examine the state of policy and provision of learning supports and accommodations for SWDs in Kenyan Public Universities in an attempt to identify possible areas requiring improvement.

1.4 Objectives of the Study

The main objective that guided this research was to establish the state of policy and provision of learning supports and accommodations for SWDs in the Kenyan Public Universities. Specific research objectives were to:

1. Examine what policies pertaining to SWDs exist in Kenyan Public Universities.
2. Establish the types of learning supports and accommodations provided to SWDs at Kenyan Public Universities.
3. Examine the views of faculty members regarding challenges that they face in supporting SWDs.
4. Examine the views of SWDs regarding appropriateness of accommodations offered at Kenyan Public Universities.
5. To propose a model for provision of learning supports and accommodations to SWDs in Kenyan Public Universities

1.5 Research Questions

In order to achieve the research objectives, the following research questions were formulated:

1. Have the Kenyan Public Universities developed and implemented written policies on disability?
2. What is the range and types of learning supports and accommodations provided to SWDs in Kenyan Public Universities?
3. What are the views of faculty members regarding challenges that they face in providing academic supports to SWDs?
4. What are the views of SWDs regarding adequacy and appropriateness of accommodations offered at Kenyan Public Universities?
5. Which model can be designed to guide in provision of learning supports and accommodations for SWDs in Kenyan Public Universities?

1.6 Significance of the Study

This study is important to: show the overall situation of SWDs in the Kenyan Public Universities for policy makers, researchers, educators and the students themselves. It also gives a voice to SWDs to help administrators understand their needs and aspirations. It is also crucial in sensitizing Kenyan institutions and encourages them to take action to address issues on SWDs. The study is also important in informing the Kenyan Public Universities on the development of their policies and practices in connection to accommodating SWDs. Finally; it will serve as a background to other studies on SWDs in the Kenyan Public Universities.

1.7 Limitations of the Study

Limitations are those elements over which the researcher has no control. In the course of conducting this study, it was not possible to control the attitudes of the respondents. This might have had effects on the research findings since the respondents may just have given the feedback to impress the researcher. The instruments themselves constituted a limitation in that no particular instrument can be regarded as totally absolute.

1.8 Delimitations of the Study

The participants of this study were Public Universities, which were in the official list of the Commission for Higher Education (CHE) and which were established through acts of parliament. The researcher delimited the scope of the study to the aforementioned institutions, mainly because of the similarity in the institutional setup, goal and type of students enrolled. Consequently, the findings of this study may not apply to institutions other than those institutions, which are in the official list of the CHE (CHE 1985) and which awarded diploma and above credentials. In order to be able to make an in-depth investigation into the policy and provision of learning supports and accommodations for SWDs in Kenyan Public Universities, the study included only three (3) of the institutions out seven (7) that were on the list of CHE.

1.9 Assumptions of the Study

This study assumed that students in the following disability categories: Hearing impairments, Visual impairments, Physical/motor impairments, Learning disabilities/Disorders, speech and language disorders, albinism, and conditions such as epilepsy were enrolled and pursuing their

studies in Kenyan Public Universities. Therefore they would be available to respond to the questionnaires and interview schedules and participate in FGDs.

The second assumption of this study was that universities might provide inappropriate or inadequate services for SWDs when they do not engage the voices of these students. The third assumption was that the range and kinds of accommodation that may have been put in place at the secondary school level should be continued or maintained at the undergraduate level. The last assumption was that SWDs feel universities treat them differently than their peers.

1.10 Theoretical and Conceptual Framework

This section highlights the theoretical and conceptual frameworks upon which this study was based. The first section describes the theoretical framework and the next, outlines the conceptual framework.

1.10.1 Theoretical Framework

The section below details the theoretical framework upon which this study was based. Three theories guided this study: Goffman's Theory of Stigma, the Social Model of Disability and the Universal Design philosophy.

1.10.1.1 Goffman's Theory of Stigma

One of the theories informing this study was the Goffman's Theory of Stigma. Goffman (1963) points out that in any given society some people wield greater power than others and that those who have influence generally impose their norms, standards of behaviour, and convictions on those who are powerless. Those with power (the non-disabled) set social norms that are to be adhered to by every member within that culture. In addition, they determine the means of

categorizing each person who is a member of that culture (Becker & Arnold, 1986) so that in case an individual does not measure up to those demands and expectations, such a person is seen to be different from others or a deviant (Goffman, 1963). Goffman distinguished three forms of stigma which act to stamp the less powerful as “deviant”: (a) abominations of the body or various physical disfigurements, (b) flaws in personal traits or frail will, tyrannical or unnatural convictions, values and attitudes, and (c) tribal stigma or race that is, having affiliation to certain nationality and religion or race. Each of these occasions of stigma denotes the person who possesses them as having “undesired differentness.” That person, in this way, gets to be viewed as “deviant” or sub-human (Goffman, 1963). These distinctive types of stigma illustrate ways stigmatization creates a shared, socially perpetuated, and determined conception of a normal individual (the normate), crafted by a social group in endeavor to define its own character and boundaries (Garland-Thomson, 1997). Dominating groups adopt commonly held beliefs that do not reflect the reality and which stigmatize groups that they consider lowly and in that manner enhances control over them (Goffman, 1963; Ainlay, Becker, & Coleman, 1986). This process also governs the treatment of PWDs in society. The dominating groups (usually those without disabilities) establish standards, and those who do not conform to those standards are seen as “different.” This “differentness” is abstracted or fortified by stigmatization, and this stigma facilitates social influence and control. One will find stigmatizing terms such as “ ‘cripple’, ‘crip’ and ‘gimp’ and descriptors such as ‘victim’, ‘unfortunate’ and ‘helpless’ being used, wittingly or unwittingly, to reinforce the status of PWDs in society” (Tompkins, 1996, p. 38). These terms reflect the tastes, opinions and perceptions of the domineering group about the normality(Garland-Thomson, 1997). Stigma, therefore, is a tool for comparison or of classification that is employed to set up “in” and “out” groupings in society. Although

Goffman's theory fails to give extensive reasons as to why society views PWDs in unfavourable manner (Oliver, 1990; Titchkosky, 2003), his work stills "underpins the nascent field of disability studies in the social sciences" (Garland-Thomson, 1997, p. 32). Goffman's theory situates disability in its social context so as to illustrate that disability results from an intersection of intricate societal and cultural interactions. The theory helps in comprehending the manner in which power relations between the PWDs and those without disabilities are organized. It underpins how people who have no disabilities construct those with disabilities as "deviant" by constructing societal norms that result to exclusion of the latter from the society. Such domineering practices prevent PWDs from gaining power and control, economic independence and other societal privileges. Goffman's theory promotes interrogation of power relations found in the institutions in the society or systems that exist to reproduce and perpetuate discriminatory practices and unfairness in the society. Such a perspective is important in understanding implementation of policies for supporting SWDs in Public Universities in Kenya.

1.10.1.2 Social Model of Disability

The Social Model of Disability also informed the current study. The Social Model of Disability can be traced back the 1960s (Hunt, 1966) and in 1970s the Union of the Physically Handicapped Against Segregation (UPIAS, 1977) questioned the dominance of a section of the staff in the medical field and those in social work over them. UPIAS resisted the status quo, and strived for a change in the social order in the society. Through the influence of works of Finkelstein (1980) and Oliver (1990) the Social Model of Disability has gained position as a different way in which PWDs can situate their experience of handicap. According to the Social Model of Disability, disability is socially constructed by:

“...imposing restriction ranging from individual prejudice to institutional discrimination, from inaccessible public buildings to unusable transports system, from segregated education to excluding work arrangements...” (Oliver, 1996 p.3).

The Social Model of disability is a comprehensive perspective originated by PWDs to define their place in the society. It is endeavoring to bring together PWDs to one group by defining who they are by explaining disability as a political issue. Campbell and Oliver (1996) underline the importance of this interpretation in stating that the social model

“ ...freed up disabled people’s hearts and minds by offering an alternative conceptualization of the problem” (p. 20).

The social model illuminates the areas in society where PWDs encounter discrimination and offers a chance for this group of individuals to act as a united group to counter discriminative practices. By exposing the areas of discrimination, the social model seeks to acquire for PWDs the same citizenship rights that people without disabilities possess. The benefit of adopting this perspective on disability is that it would help to recognize the impediments that SWDs encounter within the further educational environment. In this study, an extended use of the social model was in its analysis of how the society disables PWDs by the way they are unnecessarily isolated from full participation in higher education.

The Social Model of disability is anchored in the philosophy of inclusive instruction. From a Social Model perspective, inclusion encompasses constant change. Classroom members continuously construct and engage in discussions with one another in order to strike a compromise in the learning environment to locate themselves as well as others in the setting as included or unappreciated; full or subordinate individuals in the classroom and learning group (Allan, 1999). Instructors can come up with teaching strategies and experiences that will reach

every learner, including those with disabilities (Hehir, 2003). The manner in which the involvement of learners is organized, the sort of discourse and standards of performance set for each student and the manner that learners relate to one another and other individuals in the classroom becomes an accepted practice that could make learners feel welcome or isolated (Allan, 1999; Collins, 2003). Instructors are in a position to demonstrate positive regard for one another and recognition of differences amongst the class members and require certain levels of behavior to these virtues (Shapiro, 1999). They can structure the learning environment in such a way that the learners engage with one another and therefore make everyone feel a part of the class (Tomlinson, 1999). Instructors can also demonstrate the disability as being abled differently by incorporating learning materials that depict disability positively. In addition, instructors can deconstruct the predominant negative attitudes towards impairment by engaging the class members in logical reasoning activities and social interchange (Ben-Moshe, 2006; Gallagher, 2006).

Accordingly, the social model has been used as a guiding philosophy for the present study for it affirms that all individuals are equal and shows that it is not the impairment that is the problem as far as PWDs are concerned, rather it is the society that erects barriers, and denies the opportunity to PWDs to pursue their dreams and live productive and independent lives. Moreover, an important principle of the social model is that individuals with disabilities are the “expert knowers in their own lived experiences” (Before, 2013 p.191). Hence, this should be respected, regardless of whether the disability is visible or not.

Additionally, protection of the rights of PWDs largely depends on what model of disability a country has adopted in its laws (Plessis& Eck, 2011). Hiranani (2013) defines the medical model and the charity model of disability. The medical model of disability views an individual as

a sum of his impairments. He is of the view that under the medical model lens individual's impairment is the problem and this alienates the person living with a disability. Hiranani supports the position that under the medical model lens, PWDs are seen as objects deserving pity. Consequently, the society establishes welfare services and care that do not promote independence of an individual with disability. The current study agrees with Hiranani's view that the medical and charity models result to a deficit in understanding of disability. The social model facilitated the study by diverting the focus from the impairment to addressing the obstacles in Public Universities that stifle the academic potential of SWDs. For instance, the failure of universities to adapt their policies, instructional strategies, and assessment methods to enable SWDs to have full access to university course content and programs and failure to make the general university infrastructure barrier-free to facilitate easy movement and comfort for SWDs. This implies that certain mechanism sought to be put in place to create an environment where all students, including SWDs, can participate on an equal basis with their non-disabled peers in the learning process. As Mwaura (2009) posits, disability is not a permanent state and changes are necessary in order to afford equal chances to SWDs as well as illuminate the existing forms of discrimination, alienation, and preclusion.

The CRPD affords a shift to the social model. Firstly, the model affirmatively acknowledges the fundamental human rights of PWDs (Hernandez, 2011). Moreover, it demonstrates disability as a cultural construction. Hernandez is therefore of the view that the social model underlines the dignity of human beings. It also emphasizes an individual's capabilities rather than inabilities. It also recognizes the individual's participation in making decisions that concern him/her (Hernandez, 2011).

The social model theory is relevant to this study because access to university education for

PWDs depends on how well the institutions are adapted to the needs of this sub-population. No student needs to be excluded from higher learning due to existing obstacles. Inclusion in university education requires removal of obstacles that may prevent a PWD from accessing education. The study argues for restructuring of universities to accommodate PWDs. Removal of obstacles will improve enrolment levels. It will as well improve the participation and achievement of existing PWDs in universities. The study argues for a rights-based approach to university education where PWDs who have a right to accessible and appropriate education, have a mechanism to claim this right. Universities and other stakeholders should also take their duty to grant the rights of PWDs by providing reasonable accommodations in a timely manner.

1.10.1.3 Universal Design Philosophy

The theory of universal design was adopted as a form of instruction comprising practical design and use of inclusive instructional strategies that benefit a wide range of learners including learners with disabilities (Scott, McGuire, & Embry, 2002). Universal design for learning is an educational structure that is considered to make the best of learning opportunities for all students to acquire knowledge, skills, and eagerness in learning (Rose & Meyer, 2002; Rose & Meyer, 2006; Rose, Meyer, & Hitchcock, 2005).

Universal design has found its way into postsecondary education (Zeff, 2007). One of the benefits of universal design is that it benefits all students, with or without disabilities. Universal design is being adopted in higher education in various fields (Lightfoot & Gibson, 2005; McAlexander, 2004). Universal design principles could be applied at higher learning as discussed by Burgstahler (2007). Accordingly, the researcher adopts the principles of universal design in this study. The researcher argues that if the universities applied the principles of

universal design in all areas of higher learning, then students would have equal opportunities in learning, regardless of their backgrounds, abilities, and disabilities. By recognizing the diversity at higher learning institutions, application of universal design would make every student feel welcome in these institutions and therefore get motivated to pursue their academic dreams in environments with least challenges. The researcher further argues that adoption of universal design in higher learning ensures access, equity and equality to all learners unlike the traditional practice where institutions of higher learning model themselves to the average student and seem to subscribe to “ableism” that is, the practices and dominant attitudes in society that devalue and limit the potential of PWDs (Hehir, 2002). Universities ought to apply universal design in policy, programs, instruction, assessment, services, information technology and physical spaces to enable SWDs go about their university life with minimum barriers and consequently with independence, just like their non-disabled peers. In other words, universal design in the mentioned areas will go a long way in providing a ‘level playing field’, and thereof avoid discrimination in the university environment. This study therefore adopted universal design principles in designing a model for provision of learning supports and accommodations to SWDs in Kenyan Public Universities.

1.10.2 Conceptual Framework

This section outlines the conceptual framework upon which this study was based.

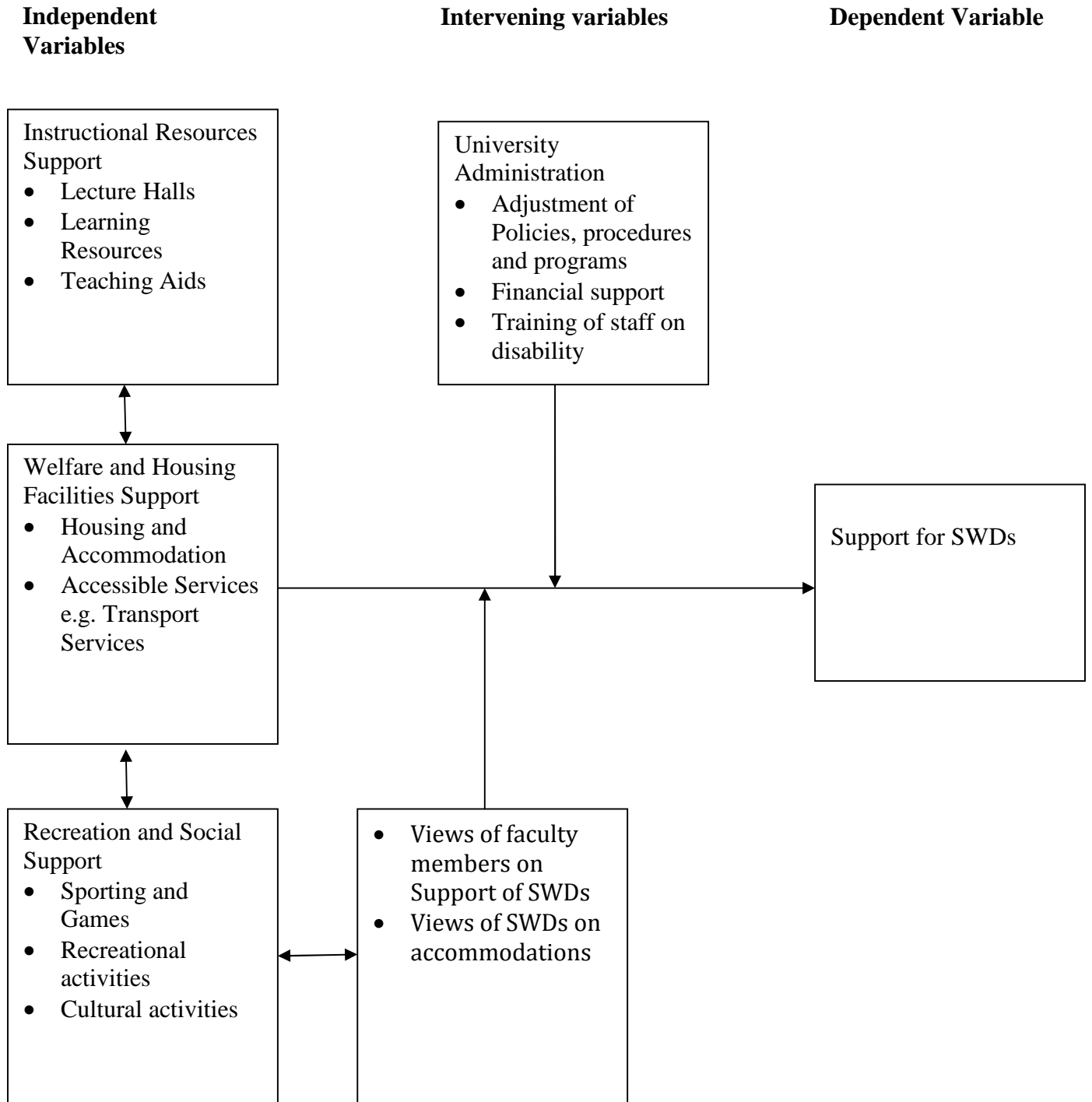


Figure 1.1: Conceptual Model

Source: Researcher, 2013

Figure 1.1 represents the conceptual framework, which was adopted in this study as developed by the researcher. The conceptual model was designed as per the study's objectives, which address matters of policy, support and accommodations and views of faculty members and students regarding issues pertaining to SWDs support. Regarding the types of support and accommodations provided to SWDs in the category of Instructional Resources Support, there are Lecture Halls, Teaching learning Resources and Teaching Aids. On matters of Welfare and Housing Facilities Support, there are Housing and Accommodation and Special Services e.g. Transport Services and on Recreation and Social Support, there are Sporting and Games, Recreational activities and Cultural activities and the researcher as well investigated the Views of faculty members on Supporting SWDs and Views of SWDs on accommodations. Support for SWDs is available to SWDs when appropriate instructional resources are provided as accommodations. The university infrastructure also needs to be barrier-free to allow free movement and promote independence of SWDs, hence enabling them to go about their day-to-day activities without need for extra effort.

Provision of accommodations will depend on the faculty knowledge on accommodating disability as well as their attitude towards SWDs. Overall, provision of accommodations for the students will be determined by the structures put in place by university administration. There will be need to adjust university policies, procedures and programs to ensure that SWDs receive the support they require to succeed in their academic programs as well as be able to participate in sports, leisure and cultural activities. The universities will also need to provide financial

assistance to SWDs to assist them to seek for scholarships to enable them meet the extra needs occasioned by having a disability.

1.11 Operational Definition of Terms

The following terms have been contextualized to present meaning associated with this study:

Accommodation: Accommodation is making adjustments and alternative arrangements to ensure that the educational environment does not have a discriminatory effect on the student.

Accommodations: Accommodations are supports and services provided to help students with disabilities to access the general education curriculum and validly demonstrate learning.

Assistive Devices: These are instruments and tools that are used to increase functionality for persons with disabilities in such areas as mobility, communication, hearing and seeing.

Assistive Technology: Any item, piece of equipment, or product system, whether acquired commercially or off the shelf, modified, or customized, that is used to maintain, or improve functional capabilities of individuals with disabilities

Auxiliary Aids and Services: Are a wide range of services and devices that promote effective communication or allow access to goods and services.

Disability Service Providers: Are people who help SWDs to develop appropriate accommodation plans, and act as a resource for faculty, instructors, staff and others at the educational institution who need information about appropriate accommodation and documentation

Higher Education: Education offered to students who attend programs leading to the award of First Degree, Second Degree, or Doctoral (PhD) Degree.

Learning Supports

Learning supports are the resources, strategies, and practices that provide physical, social, emotional, and intellectual supports intended to enable all students to have an equal opportunity for success at higher learning by addressing barriers to and promoting engagement in learning and teaching.

Public University: A higher education institution whose budget is allocated by the government and providing higher education services.

Public Institution/School: An educational establishment founded and funded by the Government of Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

A lot of literature has been written in the area of education generally. However, most of the research done in the area of policy and provisions of learning supports and accommodations in higher education for SWDs has been done in other countries. Kenyan literature on the area of policy and supporting learning for PWDs is scarce particularly in higher education. This research is especially important as the right to supports and accommodations for PWDs is now entrenched in Section 54 (1) (2) of the Constitution. It is therefore a responsibility for every Public University to provide reasonable accommodations to SWDs. Kenya has also ratified the CRPD among other international instruments that provide for equal opportunities in education for PWDs.

This study focuses on the provision of learning supports and accommodations for SWDs in Kenyan Public Universities. The literature review provides the background to the study then goes on to discuss some of the policy and legislation affecting the education of this group as well as providing an account of the current provision of services to SWDs in Public Universities in Kenya. The review then looks at the previous research that has been carried out on the provision of learning supports and accommodations for SWDs, with a view to identifying the issues and factors that have been found to impact on the educational experiences of this group. The literature review served to identify particular issues that could be explored in this research and has helped to guide the development of the research instruments used. In review of the literature, textbooks, journals, and e-learning materials are reviewed in relation to policy and provision of

learning supports and accommodations for SWDs. The literature review led to the establishment of knowledge gaps. A summary of literature review has been provided.

2.2 Definition of Disability

A lot of controversy surrounds definition of disability. Definitions based wholly on the medical model are gradually getting replaced by definitions that include the individual's abilities and the activities in which they can participate, the extent of their inclusion in all aspects of the society and the crucial role of assistive technology (Mont, 2007). The world Health Organization's International Classification of Functioning, Disability and Health (ICF) gives a description of disability: "...an umbrella term for impairments, activity limitations, and participation restrictions as part of broader classification scheme covering three main domains: body functioning and structure, activities and participation, and environmental factors (ICF, 2016). The interaction of aspects of all three of these domains determines individual welfare and social policy choices facing governments.

In Article 260 of the Constitution of Kenya (2010) the definition of disability “ includes any physical, sensory, mental, psychological or other impairment condition or illness that has or is perceived by significant sectors of the community to have a substantial or long term effect on an individual's ability to carry ordinary day to day activities” (p.161). The range of impairments which are classified as forms of disability compares favorably to that presented in the UN Convention on the Rights of Persons with Disabilities (CRPD). However, “the ability to conduct ordinary activities” (Republic of Kenya, 2010, p. 161) arguably results in a narrower definition than that provided by the CRPD which refers to “full and effective participation on an equal basis with others” (CRPD Article 1). Furthermore, this definition focuses more on the individual's impairment rather than culturally imposed factors. It takes a medical model

perspective of disability. These aspects ultimately permeate disability policies in such a way that the policies addressing the needs of PWDS would provide for narrow range of services and focus on curing the impairments, which are viewed as the problem, rather than removing the barriers constructed by the society. This was a concern of the current study.

This study adopts the definition of disability in the CRPD. Article 2 of the CRPD defines PWDs to 'include those who have long term physical, sensory, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others'. According to the United Nations Handbook of interpretation of the CRPD, this definition is not exhaustive and the CRPD acknowledges that disability is a concept that changes over time (United Nations Handbook for Parliamentarians on the CRPD, 2016). CPRD therefore does not hold a rigid view of disability. It takes a flexible approach that gives room for adjustments overtime and in the confines of the existing socio-economic situation. The handbook indicates that the position of the drafters of the convention was that disability ought to be viewed as resulting from the interaction between an individual's impairment and the surroundings. In other words, disability does not reside within an individual due to an existing impairment.

The study acknowledges Harris's (2003) position that in most cases PWDs experience discomforts and pain in their bodies. Harris argues that the barriers in the society make it difficult for PWDs to live their lives to full potential. He continues to argue that the obstacles make it challenging to carry out day-to-day activities, which would otherwise be easy to perform. This study therefore adopts Harris's view and sees the problem in the manner in which Public Universities respond to the needs of SWDs. The physical campus infrastructure and social

environments were designed by nondisabled and for nondisabled people only. The study also concurs with Tinklin (2004) who asserts that disability is due to social organization that puts little or no consideration at all of those who have disabilities, and hence excluding them from participation in the activities of the society.

This study involved students in the following disability categories: physical disabilities namely hearing impairments, visual impairments, orthopedic/mobility impairments, speech and language disordered, those with albinism and those with epilepsy. Though any student with a disability was eligible to participation, only participants in the aforementioned categories volunteered to participate.

2.3 Learning Supports and Accommodations

This section outlines the learning supports and accommodations commonly provided to SWDs in developed countries.

2.3.1 Learning Supports

Due to the negative impact of disability on carrying out major bodily functions and consequent negative impact on learning, it is important for individuals with disabilities to be provided with supports to enable them participate in higher education programs and succeed. Learning supports are the resources, strategies, and practices that provide physical, social, emotional, and intellectual supports intended to enable all students to have an equal opportunity for success at higher learning by addressing barriers to and promoting engagement in learning and teaching (UCLA Center, n.d). In order to ensure that each student reaches his or her maximum potential, universities ought to make academic programs accessible to and provide learning supports and services for addressing the needs of entire student population. An effective system of learning

supports encompasses resources, approaches and practices, as well as factors related to environment and culture that extend out of the classroom that in combination offer support in physical, mental, social and emotional aspects that are essential for every student to succeed in higher education (Adelman & Taylor, 2006).

2.4 Accommodations

Accommodations are supports and services provided to help SWDs to access the same education curriculum with their peers in regular setting and to demonstrate what they know. Accommodations are a critical component of effective educational programs for SWDs (Beech, 2010). To participate fully in general education curriculum, for instance in the university, many students require slight changes in the instructional strategies and the manner in which they are assessed. According to Nolet and McLaughlin (2000) instructional accommodations is “a service or support that is provided to help a student fully access the subject matter and instruction as well as to demonstrate what he or she knows” (p. 71). These adjustments do not alter the complexity of the knowledge the student is expected to learn. Students with disabilities who utilize instructional accommodations are expected to learn the same content at the same level of proficiency as their peers who do not utilize accommodations. In order to achieve this, lecturers ought to set explicit instructional goals on the basis of certain academic standards (Thompson, n.d). Since the demands on a student may change over the day, the necessary adjustments will also change from one instructional setting to another. For instance, a student who uses speech recognition software to write an assignment in language arts could write out a problem in an algebra class where the writing demands are not as great (Vanderbilt Peabody college, 2016). Categories of accommodations are described below.

2.4.1 Presentation Accommodations

Presentation refers to how the student will access information. Presentation accommodations enable a student to access information for instruction and assessment that is presented in textual form, visuals, or verbal formats. Students with disabilities who are unable to read standard print usually require alternative formats of information presented in text and graphics. Students with disabilities may require presentation accommodations that promote or enhance their reading, observational, and listening abilities in the classroom (Schwartz, 2007), seminars or conferences.

2.4.2 Response Accommodations

Students typically respond to classroom tasks by speaking, writing, drawing, or other types of expression. Response accommodations allow students to use alternative ways to complete assignments, tests, and activities.

2.4.3 Test or Examination Accommodations

A testing accommodation is generally a change in assessment materials or procedures that should be made to ensure that an assessment measures the student's knowledge and skills rather than the student's disabilities (NCEO, 2016). The intention behind testing accommodation is to provide equal access by removing unnecessary difficulties that create construct-irrelevant variance such as characteristics of students' impairments that may interfere with the valid assessment of their knowledge and skills (Thurlow & Bolt, 2001). Although both accommodations and modifications are not standard conditions, accommodations are different from modification since modifications alter the knowledge being measured while accommodations only change the way in which a construct is being measured, with the aim of

ensuring assessment is more valid for SWDs. Its goal is to provide a "level playing ground," and thus allow a student with a disability to show his or her "actual" capabilities on the same basis with the non-disabled students (Elliott, Kratochwill, & McKeivitt, 2001; Fuchs, 2001; Fuchs, Fuchs, Eaton, Hamlett, Binkley, & Crouch, 2000; Shriner, 2000; McDonnell, McLaughlin, & Morison, 1997; Willingham et al., 1988). It is however a challenge to avoid introduction of new measurement biases or to completely avoid measuring unintended construct. To address this issue, in the U.S it is a requirement under Section 504 and the ADA as well as the existing social policy that SWDs be provided reasonable accommodations to enable them participate without discrimination in entrance examinations (Geisinger, 1994; Geisinger & Carlson, 1995; Department of Justice, 1996). Extra time on testing is among the most commonly provided accommodations on standardized testing in the U.S. According to Ragosta & Wendler (1992), "students with disabilities taking the SAT under extended time on testing accommodation "receive up to twice the standard examination time" (p. 100).

2.4.4 Scheduling Accommodations

Scheduling accommodations involves making alterations in time allocations, scheduling, and time management. Students may require scheduling adjustments to address issues related to effort, rate of performance, attention, and the ability to monitor and manage time.

2.4.5 Time allocation

It may be necessary to make changes in the length of time allowed or alter the manner in which time is organized for tasks or activities. Some SWDs work or learn at slower pace than their

peers hence will require schedule accommodations. Students may also require extended time to use accommodations, such as assistive technology, Braille, or dictation.

The performance of students with health-related impairments may fluctuate over the day as a result of medication or diminishing energy levels. For instance, some students need to maintain blood sugar levels; therefore they may need to eat a number of times in a day. To accommodate these students it is important to schedule tests and activities around the eating schedule or to allow them to take food to class or to testing location (Beech, 2010).

2.4.6 Breaks

It may be necessary to allow breaks during tasks or lectures that take a long period of time. A student with a disability may genuinely require an opportunity to get up and move in the classroom or to visit washrooms or even to take medication. Breaks can be given at predetermined intervals or after completion of an assignment, test, or activities (Thompson et al., 2005).

2.4.7 Schedule adjustments

Schedule adjustments allow classes or assessment to take place at a particular time of the day week, or for a certain number of days. Students on medications that lower concentration levels may also require schedule adjustment (Beech, 2010).

2.4.8 Setting Accommodations

Setting accommodations refer to changes in the venue or conditions of the learning setting or environment. These become necessary to make the venue accessible to SWDs and to address

problems with organization of space and materials, for instance in a science laboratory, computer labs, libraries and cafeteria. Students who utilize certain types of accommodations that could result to distraction to the rest of the students, for instance reader, scribe, or frequent breaks, may also require setting accommodations (Beech, 2010).

2.4.9 Accessibility

Students who have sensory or motor /orthopedic impairments may need an accessible location, specified room conditions, or special equipment (Beech, 2010). Students who use mobility aids such as wheelchair may require furniture that is adjustable, for instance, desks and tables. These workstations provide the student with the needed support or allow a student to change position. Students who are wheelchair users and others who have impairments and conditions that hinder mobility may also need accessible transportation (Beech, 2010).

2.4.10 Preferential seating

A student is allowed to sit in a place where he/she can clearly see or hear the teacher or see what is written on the board (Beech, 2010).

2.4.11 Specialized lighting or light filters

Students who experience unusual eyestrain or fatigue may require specialized lighting or light filters. These students may require a natural light source or alternative lighting (Beech, 2010).

2.4.12 Acoustic treatment

These provide a quiet background that reduces external noise and distractions within the classroom. It is often required by students with hearing impairments (Beech, 2010).

2.4.13 Reasonable Accommodations

Reasonable accommodations are changes or adjustments to the tasks, setting or to the manner in which things are done in order to allow PWDs to participate in an academic program or a job on equal basis with the non-disabled (U.S Department of Education, 2007). Broadly accommodations include adjustments to the application procedures to grant opportunity to apply for enrolment into a program, adjustments that allow a student with a disability to perform the essential functions of the academic program, and adjustments that enable a student with a disability to enjoy on equal basis the benefits and privileges of the program.

In the U.S the Americans with Disabilities Act (1990) requires colleges and universities to provide “reasonable accommodations” or reasonable modifications in order to ensure that their programs and activities are fully accessible to SWDs. In particular, the law requires colleges and universities to make reasonable modifications in their practices, policies and procedures, and to provide accommodations and other related services for PWDs, unless to do so result to fundamental alteration of the nature of the goods, services, facilities, privileges, advantages and accommodations they offer, or would result in an undue financial or administrative burden on the institution (Disability Rights California, 2013).

For individuals who have hearing impairments and individuals who have visual impairments attending public institutions, universities have the duty to provide such persons with auxiliary aids such as sign language interpreting, computer-assisted real-time captioning (CART) and similar accommodations (Colker & Grossman, 2013). The Antidiscrimination laws can prohibit discrimination in education but without reasonable accommodation the right to non-

discrimination will not be realized (Bagentos, 2004). Reasonable accommodation and inclusive measures are necessary to put PWDs in the same position as others in a university.

2.5 Barriers to Participation in Learning for SWDs in Higher Education

Since each type of disability presents varying access needs, an examination of some specific barriers is necessary. Generally, compensating for any impairment is challenging, and SWDs are more prone to fatigue and frustration than their non-disabled counterparts as they engage in this process. Consequently, they may for instance require different pacing from that of other students. They may need additional time to complete the same tasks or a flexible curriculum, in order for them to be at par with the non-disabled peers. Fatigue and frustration, may increase the chances of behavior problems. Therefore, SWDs may require extra help with behavior management, aimed to assisting the student build positive self-management skills.

Students with disabilities constitute a group that has considerable potential for acquiring an education and contribute to development in the society, but encounter challenges in regular educational settings including universities. It is possible to promote their performance through programs that remove barriers in universities. Providing reasonable accommodations and other learning supports is critical to success of these learners, hence universities should consider what supports the students may require and commit to accommodate them. In general, flexibility in instructional strategies that include individualization of academic content, pacing and teaching strategies are useful. The section below provides a description of common characteristics of SWDs in various categories and the challenges that they encounter in higher learning. This is

useful in examining the types and appropriateness of accommodations that universities provide to these learners.

The population of SWDs in universities consists of students who have multiple disabilities, hearing or visual impairments, orthopedic impairments, albinism, speech and language disorders, and epilepsy, or among others. These students are likely to require accommodations and related services. Related services include accessible transportation and other supportive services necessary to help an individual participate fully in the regular curriculum on equal basis with the non-disabled peers. Also included are speech therapy, occupational therapy, physical therapy, counseling and training, and psychological services (Colker & Grossman, 2013). Universities also have a responsibility to provide specialized facilities required by SWDs. Since participation in social activities is critical in inclusion for SWDs, programs geared towards social-skills training and recreation should be an important component of services. Students with disabilities who have keen interest on leisure activities that can be shared with others stand better chances of inclusion in meaningful ways in the society in general and universities, in particular.

2.5.1 Barriers Encountered by Students Who Have Hearing Impairments

Hearing impairment ranges from mild hearing loss to profound deafness. Hearing impairments may also include challenges hearing sound at certain frequencies or inability to discriminate between certain sounds. Educationally, hearing impairments have been categorized into “deaf” (a hearing loss of 70 db or greater in the better ear) and “hard of hearing” (a hearing loss of 35 to 69 db in the better ear). Depending on the degree of loss, the student may have difficulties following fast-paced lectures or conversations, experience fatigue while listening, miss half or more of

class discussion, have problems dealing with background noise, manifest expressive difficulties, limited vocabulary, or learning disorders, may have an irregular voice intonation, delayed language and syntax skills (which impacts both reading and writing), and reduced speech intelligibility. Besides facing the usual uncertainties and fears of entering a university, students with hearing loss have also to contend with unsuitable acoustics of many lecture rooms, large class sizes, ignorant or unsympathetic faculty, unreliable accommodations for SWDs, Absence of assistive devices, and discontinued learning supports that students with hearing impairments typically accessed at high school (Miller, 2009).

Deaf/hard-of-hearing students have challenges following a lecture without the services of a sign language interpreter, Communication Access Real-Time Translation (CART), or C-Print (Kroeger & Schuck, 1993; Marschark, Leigh, Sapere, & Burnham, 2006; Marschark, Sapere, & Convertino, 2005). Research shows that the addition of some type of textual display such as Real-time captioning and note-taking are very useful for deaf/hard-of-hearing students, at the post-secondary level (Cuddihy, Fisher, Gordon, & Schumaker, 1994; James & Hammersley, 1993; Stover & Pendergraft, 2005). Many traditional, large lecture halls at post-secondary institutions represent hostile acoustic environments, which exacerbate the problems already faced by students with hearing loss. Researchers on postsecondary classroom acoustics have reported unfavorable reverberation and noise levels (Hodgson, 1999; Kelly & Brown, 2002; Woodford, Pritchard, & Jones, 1998). Improving classroom acoustics through structural adjustments and the addition of soundproof materials would be an effective solution. For new constructions, universal design principles (The Center for Universal Design, 2008) should be applied to avoid reverberations and disruptive noise. Some individuals with hearing challenges

communicate through sign language, but the majority depends on speech-reading, speech, hearing aids, or a combination of these that facilitates oral communication.

2.5.1.1 Academic accommodations

- Seating a deaf/hard-of-hearing student near the source of sound or speaker to increase the likelihood for the student to “hear” part of the lecture, through speech reading or visual-gestural cues.
- Providing written lecture notes to supplement oral instructions will be beneficial.
- Repeating what other students have said during the lesson, since the deaf/hard-of-hearing learner usually fails to capture what has been asked.
- Provide note takers because hearing impaired students find it very difficult to attend to, pay attention to an interpreter or speech-read a lecture and simultaneously take notes.
- Many deaf/hard-of hearing students will need a hearing aid or personal FM amplification system. However, FM devices do not, alone, sort the hearing deficiencies.
- Sign language interpretation
- Computer Assisted Real-time Captioning (CART) or C-Print services
- Captioned audio-visual materials

2.5.2 Barriers Encountered by Students with Orthopedic/ Mobility Impairments

There are varied origins of orthopedic and/or mobility impairments, which are manifested in mobility loss ranging from loss of fine motor coordination in one hand to total paralysis from the neck down. Therefore, functional limitations also vary greatly. Students with mobility impairments may experience challenges with inaccessible physical infrastructure such as staircases and distances between campus buildings. Other challenges are experienced in writing

by hand, walking, and/or using standard equipment in settings such as the library or laboratory. Some of the more common disorders include: traumatic brain injury, spinal cord injury cerebral palsy, muscular dystrophy, and amputation. Students with mobility impairments may easily get fatigued and spend more time moving between classes and/or experience challenges with reliable and accessible transportation. This makes exhausted causing them to lag behind their peers.

Although the largest number of SWDs in post-secondary institutions are those with physical impairments (Canada, 2006), higher learning institutions have been found to be largely inaccessible despite the existence of accessibility standards for buildings. Research has shown that accessibility barriers present major challenges to students who have orthopedic disabilities(Klinger, 2014).Students who are wheelchair users can hardly access most of the buildings (Gilson, 2010a) or access to these buildings is so cumbersome that it discourages students on wheelchairs (Holloway, 2001). Tinklin and Hall (1998) in a study conducted in postsecondary institutions in Scotland noted that students with physical impairments were being forced to go round obstacles, which should instead be removed. Only the ground floor of libraries was accessible to students since there were no lifts or lifts were too small to allow in wheelchairs. Book stacks were also very close together. Students were forced to give up their first choice of university due to inaccessibility. Students were therefore excluded from their choice of courses for reasons other than academic results. This was discriminating as able-bodied students had a range of choices to choose from. Students had to use their disabled students allowance to get helpers to take them places and to get books for them in the library. This study significantly points to some of the barriers students with physical disabilities have to go through in Kenyan higher learning institutions.

2.5.2.1 Academic accommodations

- If a classroom is not accessible, re-locating to an alternative one will be appropriate.
- Ensure there are no barriers in the classroom to allow easy movement of students using wheelchairs or clutches.
- Schedule classes in a manner that the locations are close to one another to reduce the distance that students with mobility impairments need to travel from one lecture to the next.
- Provide accessible workstations in the laboratories; enough space for wheelchair movement and adjustable tables and chairs will be useful.
- Allow students with fine motor impairments access to computer lab or audio recording for written assignments and examinations.
- Provide a note taker for students with fine motor or mobility impairments. Providing them with a hard copy of lecture notes will also be useful.
- Testing accommodations, such as extra time, use of adaptive devices and/or a scribe.
- Test materials in alternative formats may be useful (Student Development & Counseling Center, 2008).

2.5.3 Barriers Encountered by Students with Visual Impairments

The scope and degree of visual impairment in individuals varies a greatly, ranging from deficits in visual acuity to challenges with discrimination or perception. Students who have visual disabilities may require a service animal, and display characteristics such as poor peripheral vision, night blindness, sensitivity to light, double vision, or may display random, jerky, uncoordinated movements of the eye. These impairments may or may not be easily noticed by a casual observer. Since there is a wide range of impairment, functional limitations also vary

widely. Challenges manifest in various ways including reduction of the sharpness of vision, difficulties discriminating the background from the foreground, or in accurately perceiving information in print formats. Commonly associated disabilities include: low vision, and blindness.

2.5.3.1 Academic accommodations

- Large print materials for the student whose vision is better than 20/200 may be beneficial.
- Allow seating closer to the front of the classroom to provide an opportunity for a student with low vision to see lecture notes on the board.
- Adaptive devices such as Braille translator, Braille printer, screen reader, enlarger, and so on will be of help.
- Testing accommodations may be required and these may vary depending on the degree of impairment. These include enlarged texts, extended testing time, a scribe, or orally administered examination.
- Talking books (books on tape).
- Allowing use of a tape recorder during lecture or use of a note taker may be beneficial to the student.

2.5.4 Barriers Encountered by Students with Speech and Language Disorders

Students with language disorders usually have challenges both in receptive and expressive components of language. They may experience challenges in areas of functioning, including: pitch, loudness, articulation, syntax, phonology, or fluency. These challenges can have a negative impact on the ability of the student to engage meaningfully in class discussions, make

presentation assignments orally, and produce adequate written work. They may also not be able to meet requirements in computer programming, mathematics, and foreign language. Commonly associated disabilities include: aphasia, speech impairment, and stuttering. As Ward and Scott (2011) assert, cluttered speech has a direct negative impact on an individual's educational, social, and vocational life.

Being able to communicate effectively helps human beings to bond with, initiate and maintain meaningful relationships with others. On the other hand inability to communicate has significant negative impact on an individual's life. Acceptance in the society, confidence and generally life satisfaction can be jeopardized. Persons with speech impairments are likely to be isolated or become a target for bullying. Besides hindering an individual's verbal conversation, broken speech raises the levels of anxiety in social situations for the speaker. Hugh-Jones & Smith (1999) reported that a majority of students who have a stutter self reported being bullied at school, and experienced difficulties in initiating and maintaining friendships. Blood, Blood, Tellis, & Gabel (2003) observed that the stigmatization associated with speech disorders may have a negative impact on an individual's self regard, because these individuals often suffer depression, social alienation, and dismal performance in academics and high stakes tests. A students with speech disorders often experiences anxiety, stress, nervousness, and a disruption in typical neurological function (Ibiloglu, 2001). Adults who stutter may find it difficult to initiate and maintain intimate relationships (Ross, 2001).

2.5.4.1 Accommodations

- Alternative means of expression in an educational setting, for instance, allowing the student to submit written assignments and examinations instead of providing oral presentations, if oral expression is not an essential part of the course.
- Treatment by a language therapist to improve in functional communication skills (Ross, 2001).
- Provide emotional support through counseling.

2.5.5 Barriers Encountered by Students Who Have Albinism

One of the key traits of albinism is freckled skin with lesions. Since the skin lacks pigmentation, it is sensitive to the sun's rays, which also predisposes it to cancer. Since all forms of albinism impact on vision, educators should give due consideration to the needs of students with albinism. Lynch and Lund (2011) point out that albinism affects vision, "due to nystagmus (involuntary eye movements) and photophobia as well as other eye problems such as squinting and astigmatism" (Urunji child-care trust, 2016).

2.5.5.1 Academic Accommodations

- Reserved seating in front of the class as they have low vision. This arrangement makes it easy for the teacher to maintain eye contact and also provide instant supervision to this vulnerable group.
- Provide more writing during class and talk less. Utilize overheads, chalkboard, and handouts for vocabulary (Student Development & Counseling Center, 2008).

- Provide such students with handouts of work presented through the use of overhead projectors. The material should always be in large black on white print and must not be coloured print.
- Examinations should be written on paper rather than on the chalkboard.
- Provide out-of-class individual sessions by appointment during office hours to ensure understanding.
- Provision of sunscreen lotions and special sunglasses to shield them from ultraviolet rays.
- In extreme cases, lecturers should also allow such learners to wear their hats in the classroom (Urunji child-care trust, 2016).

2.5.6 Barriers Encountered by Students Who Have Epilepsy

Students who have epilepsy often experience seizures in a learning environment. These students may additionally experience serious health problems, which fundamentally limit a major life activity. Although having a chronic health problem does not necessarily result to disability, its impact such as hospitalizations, side effects of drugs, among others, may have significant limitation on the individual within the learning environment. Side effects that may negatively impact on academic performance include: fatigue, memory loss, drowsiness, loss of concentration, euphoria, mental confusion, and excessive absences.

2.5.6.1 Academic Accommodations

- As students with chronic health impairments may have reduced endurance or concentration, they may benefit from the provision of course outlines prior to class or a very brief review of previous lesson before introducing new information.

- Students with health problems often show more absences than other students. Maintain open communication with these students and make allowances for absences, allowing extra time for assignments, and wavering penalties for assignments submitted late will be useful.
- Allow demonstration of knowledge through a series of shortened tests, rather than a few evaluations throughout the semester as consideration for potential reduction in the student's stamina.
- Appropriate testing alternatives such as rooms free of distractions and/or extra time on testing.

2.6 Legal Framework on Provision of Learning Supports and Accommodations for SWDs in Higher Education

There are a number of policy and legislative changes which are of fundamental importance to the provision of learning supports and accommodations to SWDs in higher learning. This section briefly reviews the most relevant and important international instruments and national legislations and policies.

2.6.1 International Instruments that Guarantee Right to Education for SWDs

Education as a fundamental human right has been affirmed in several global instruments and national legislations and policies. International instruments include conventions, covenants, and charters. The rights have also been recognized in soft law such as recommendations, declarations and frameworks for action. Treaties are binding; by ratifying a treaty a State is consenting to being legally bound (Global Campaign for Education, 2012). Also national legislations and

policies acknowledge rights to education. These are discussed below and their relevance in provision of supports for SWDs in higher learning.

2.6.1.1 International instruments

International instruments uphold the entitlements to appropriate and accessible education for PWDs. This could be either directly or by implication. These instruments require member states to recognize education as a human right. These international initiatives and documents have played important roles worldwide when formulating new policies and strategies in higher education. Kenya has acceded to the main United Nations human rights instruments hence has an obligation to provide education to its citizenry, including PWDs.

The Universal Declaration of Human Rights (1948) states that every individual has the entitlement of equitable access to services provided by the government in general and specifically to education. Further, it lays down the tenets of mandatory schooling without charges for citizens to promote all round development of individuals as well as to promote regard for human rights and basic freedoms. The Declaration on the Rights of Disabled Persons (1975) calls for global and local measures to guarantee the entitlements of PWDs to supports and accommodations to empower them to improve their capacities and know-how to their ultimate potentials, and accelerate their inclusion in the community. The Convention on the Rights of the Child (1989) acknowledges exceptional needs. It institutes increased support, free elementary schooling, and efficiency in obtaining fundamental aid, education, readiness for job market and leisure recreation opportunities for young children and young adults with exceptional needs in

ways that are appropriate for these individuals to attain full inclusion into the society and personal growth.

The Standard Rules on the Equalization of Opportunities for Persons with Disabilities (1993) acknowledges the rule of equitable participation at all levels of education for children, young people and adults with exceptional needs in an inclusive environment; the education of individuals with exceptional needs as an essential part of the education system. It sets up proper, sufficient and appropriate services to provide accommodations and other auxiliary services to learners with special needs in inclusive learning environments.

The Salamanca Framework for Action (1994) emphasizes the entitlement of all youth including those with short-term or life-long requirements for accommodations and instructional modifications to join learning institutions near their homes or places of residence in inclusive learning environments. More fundamentally, it underlines the entitlement of every youth to take part in high standard learning that is useful to them, at inclusive setting utilizing an academically solid student-focused methodology, to give the improvement and advantage that could be obtained through actualization of inclusive instruction.

The World Education Forum (2000) concerns itself with actualizing the right to schooling since it has its foundation in the 'Universal Declaration of Human Rights, 1948'. It is a supplement to the 'Education For All' lobby.

The UN Convention on the Rights of Persons with Disabilities (CRPD) (2007) seeks to elaborate in-depth the entitlements of individuals with impairments and stipulate guidelines for

actualization. The CRPD has been ratified by several nations, Kenya included. The Convention marks a "paradigm shift" in attitudes and approaches to PWDs. The Convention intended to protect human rights of PWDs. It succinctly underlines the significance of social development. It provides a wide categorization of PWDs and reaffirms that all persons with all types of disabilities must enjoy all human rights and fundamental freedoms. It clarifies and qualifies how all categories of rights apply to PWDs and identifies areas where adaptations have to be made for PWDs to effectively exercise their rights and areas where their rights have been violated, and where protection of rights must be reinforced. It provides important guidelines for legislation and policy formulation in matters related to the rights and dignity of PWDs. Internationally, it is recognized that there is a difference between the medical model and social model of disability. CRPD subscribes to the social model whose emphasis is identification and removal of barriers that prevent PWDs from performing their daily activities. Under the convention, State parties have the obligation to ensure that the rights of PWDs are guaranteed. By ratifying this convention Kenya commits itself legally to make the words written in the text a reality, thus improving the lives of all Kenyans, including individuals with disabilities.

2.6.2 Legal and Legislative Framework for Provision of Learning Supports and Accommodations to SWDs in Higher Education: US, Canada, UK, Australia, and South Africa

A brief review of the legal and legislative framework for provision of learning supports and accommodations to SWDs in higher education in developed countries will reveal the commitment of these countries to supporting education of SWDs and enhance an examination of where Kenya stands in this regard.

Many countries have in recent decades adopted legislation that outlaws discrimination on basis of disability. Among these are the U.S (Americans with Disabilities Act, 1990), the UK (Disability Discrimination Act, 1995 and Equality Act, 2010) and Australia (Disability Discrimination Act, 1992). These pieces of legislation have been vital in enhancing access to and participation of SWDs at higher learning institutions in respective nations. The laws and their provisions are outlined below.

2.6.2.1 United States of America (USA)

2.6.2.2 Legal framework for equality and non- discrimination

The Americans with Disabilities Act and Amendments to the Act (ADA-AA); The Americans with Disabilities Act (ADA) of 1990 Title II governs the activities of the state and local governments. State and government are required to enable PWDs to participate in all areas of public life such as education, employment, transportation, recreation, health care, and social services. Public universities are required to make reasonable adjustments to policies, practices and procedures where necessary to avoid discriminating against SWDs (Colker & Grossman, 2013). The American with Disabilities Act (ADA) and its re-authorization prohibit discrimination against PWDs. Under the law, public and private institutions are required to make adjustments in the areas of education, employment, transportation, public accommodations, state and local governments, and telecommunications.

2.6.2.3 The Section 504 of the Rehabilitation Act of 1973

Under Section 504 of the Rehabilitation Act of 1973, it is illegal for all postsecondary institutions, which get financial assistance from federal government to discriminate on individuals on basis of disability. Section 504 states that a qualified person with a disability shall not be excluded from participation in, or denied the benefits of, or be subjected to discrimination

under any program or activity that receives financial assistance from the federal government (Colker & Grossman, 2013). With respect to higher education services, an otherwise qualified with a handicap person is one “who meets the academic and technical standards requisite to admission or participation in the recipient’s education program or activity”.³⁴ C.F.R. §104.3(1)(3). This legislation requires postsecondary students to disclose their disability when requesting for accommodations. It also requires students to provide documentation as proof that they are eligible for accommodations and related services. It also provides financial aid to SWDs. Further, it urges collaboration among colleges, businesses, and relevant organizations to promote accessibility and give assistance in higher learning, to reach out to SWDs, and to work to minimize attitudinal barriers that hinder involvement of PWDs in social activities.

2.6.2.4 Nondiscrimination in Pre-admission, Admissions, Recruitment, and Accommodation

Pre-Admission Inquiries

In order to help in preventing discrimination against applicants with disabilities in the admission process, Section 504 of the Rehabilitation Act of 1973 prohibits a university to make inquiries prior to admission, as to whether the applicant for admission is disabled. A university is however allowed to make pre-admission inquiries where “a recipient is taking remedial action to correct the effects of past discrimination,” or where “a recipient is taking voluntary action to overcome the effects of conditions that resulted in limited participation in its federally assisted program or activity.” 34 C.F.R. § 104.42 (c). Even in the latter situation, however, the recipient must clearly state: (1) “that the information requested is intended for use solely in connection with its remedial action obligations or its voluntary action efforts”; and (2) “that the information is being

requested on a voluntary basis, that it will be kept confidential, (and) that refusal to provide it will not subject the applicant to any adverse treatment”. 34 C.F.R. § 104.42 (c).

Section 504 regulation provide that a university may “not make use of any test or criterion for admission that has a disproportionate, “adverse effect” on applicants with disabilities unless the test has been validated as a predictor of success in the program and alternative test or criteria that have a less disproportionate adverse effect are not available 34 C.F.R. § 104.42 (b). Admissions tests must accurately reflect the applicant's achievement level and not merely reflect his or her disability. Pre-admission tests must be given in a non-discriminatory fashion, to applicants with disabilities. In most cases test takers with disabilities will be entitled reasonable accommodations (Colker & Grossman, 2013). It is illegal for a higher learning institution to deny admission to a "qualified individual with a disability". Institutions therefore cannot discriminate individuals in admission or recruitment process on the basis of his/her disability. Schools are also prohibited to limit the number or proportion of SWDs. Admissions officers may not ask whether an applicant is disabled, unless it is clearly stated that the information is voluntary, will be kept confidential, and is being used solely in order to monitor the school's compliance with nondiscrimination laws. A post-secondary education program which receives federal funds must make adjustments to its academic requirements, if necessary, to ensure that a person with a disability is not discriminated against, and must provide "auxiliary aids" such as readers, interpreters, and adapted classroom equipment. However, educational programs do not need to modify requirements, which are "essential" to the program. An “otherwise qualified" individual with a disability has been interpreted to mean someone who meets all of a program's requirements, despite his or her disability (34 C.F.R. ' 104 et seq).

2.6.2.5 Nondiscrimination in housing

Any institution that receives federal funding and provides housing for students without disabilities is required to provide comparable, convenient, and barrier-free housing for SWDs at the same cost. In general, the number and variety of living accommodations available to SWDs must be comparable to that available for the non-disabled (34 C.F.R. ' 104.45.).

2.6.2.6 Nondiscrimination in financial aid

A school which receives federal assistance may not, on the basis of disability, provide less financial aid, limit eligibility for financial aid, or discriminate in any other way against applicants with disabilities and recipients of financial aid (34 C.F.R. ' 104.46.). Special scholarships and awards which may discriminate are valid only if the overall effect of the award or scholarship is not discriminatory on the basis of disability. Students in the US may apply for financial aid through the financial aid office of the institution he/she plans to attend. Assistance to SWDs is often provided by state Vocational Rehabilitation agencies. There are numerous programs offering financial aid to SWDs (HEATH Resource Center, n.d).

2.6.2.7 Nondiscrimination in nonacademic services

A recipient of federal assistance may not discriminate on the basis of disability in providing physical education courses and athletics programs, and must provide qualified students with disabilities an equal opportunity to participate. A school may only offer separate or different physical education and athletic programs if they are not discriminatory and if qualified SWDs have the opportunity to participate in the regular programs. Personal, academic or vocational counseling must be provided without discrimination on the basis of disability. It is discriminatory

to counsel SWDs to pursue more restrictive career objectives than non-disabled students with similar interests and abilities. (34 C.F.R. ' 104.47; California Department of justice, 2003).

2.6.2.8 The Higher Education Opportunity Act (HEOA)

The Higher Education Opportunity Act provides for youth to access information well in advance regarding opportunities available for postsecondary education and the role that students need to play in order to prepare to take up these opportunities. Its focus is retention of SWDs in school to completion of their studies and to encourage programs that provide guidance for students about financial assistance and support services. It provides finances to colleges to put in place supports for students. The supports include offering financial assistance for the SWDs, furnishing information to academic staff about support services available for SWDs in campus, as well as conducting awareness seminars for faculty and administrators about student accommodation needs, and accommodations in the classrooms and on campus (HEATH Resource Center, n.d).

2.6.3 Canada

Legal framework for equality and non- discrimination

The Canadian Constitution sets out equality rights and states that education matters are a responsibility of the ten provinces and three territories. Each of these bodies has own codes of rights and freedoms that apply to provincial matters (Cäcilia Weiermair-Märki, Alexander Kesselring, & Elisabeth, n.d).

2.6.3.1 Legal Framework for Higher Education

Ontarian Human Rights Code has provisions for all forms of education including higher education. Universities are required to provide goods, services and facilities that are accessible to

PWDs if provision does not amount to “undue hardship”. A human rights commission that each province operates enforces compliance to the provincial/territorial human rights codes (Cäcilia Weiermair-Märki,& Elisabeth, n.d).

With respect to funding, it is the responsibility of Provincial Ministries of Health to provide the equipment required by individuals with disabilities for their day-to-day activities. For instance, Ontario Assistive Devices Program funds three quarter (75%) of costs required for ensuring independent living. Canadian students pay tuition fees for universities and colleges. The Canada Student Loans Program gives assistance to SWDs through various funding schemes. The Canada Study Grant for the Accommodation of Students with Permanent Disabilities funds technology expenses. This combined with provincial funding is usually adequate to cater for technology and necessary support at the post secondary level (Cäcilia Weiermair-Märki, & Elisabeth, n.d).

2.6.4 United Kingdom (UK)

2.6.4.1 The Legal Framework for Equality and Non-Discrimination

Disability Discrimination Act (DDA) of 1995 is the major piece of anti-discrimination legislation. It provided for reasonable adjustments, access to and use of means of communication, access to and use of information services; websites providing information services are covered; educational funding institutions have to request disability statements by educational institutions or training providers. Prohibition of discrimination through learning institutions was only established through Special Educational Needs and Disability Act (SENDA) (2001).

2.6.4.2 Disability Equality Duty (DED) 2006: Proactive Approach to Disability

Public entities are required to actively think of strategies for preventing discrimination against

PWDs. It governs all levels of government, schools, colleges, universities as well as entities that are recipients of government funding for the provision of public services. Public bodies are required to develop Disability Equality Scheme (DES), including PWDs in development and action plans (Cäcilia Weiermair-Märki, Elisabeth, n.d.).

2.6.4.3 Legal Framework for Higher Education

Disability Discrimination Act as amended by SENDA 2001 guarantees equal rights in post 16 education with regard to admissions and enrolment as well as provision of services for SWDs. There is a Code of Practice Guide regarding the correct application of the law. The Learning and Skills Act 2000 provides that federal educational institutions provide supports to meet the learning needs of people with learning difficulties “England and Wales” and “support needs” (Scotland). Disability Equality Duty and DES are both applicable to higher education.

The higher learning institutions fund equipment and assistance for SWDs. Further higher learning institutions receive funding based on regional regulations.

2.6.5 Australia

2.6.5.1 Legal Framework for Equality and Non- Discrimination

The Australian Disability Discrimination Act 1992 and Disability Standards for Education, which form part of the law and were adopted in 2005, apply in ensuring equality and non-discrimination in higher education. These Disability Standards for Education stipulate the obligations of universities in ensuring that SWDs have access to and are able to fully participate in education on equal basis with the non-disabled peers. Standards are spelt out for enrolment, participation, curriculum development, accreditation and delivery, student support services and elimination of harassment and victimization (CäciliaWeiermair-Märki & Elisabeth n.d).

2.6.5.2 Legal Framework for Higher Education

The Disability Standards for Education apply to among others higher education providers, including universities, as well as bodies whose purpose is the development and accreditation of curricula, training packages or courses used by education authorities, institutions or providers.

With regard to funding, the Australian Ministry of Education, Science and Training gives grants to higher education institutions for promoting equality of opportunities as provided for in the Higher Education Support Act (2003). The grants are given under the Higher Education Disability Support Program. The Higher Education Equity Support Program aims to increase access and participation in higher education of students, including SWDs. To qualify for these funds in any given year, eligible providers are required to provide an acceptable proof, in statement to the relevant department that they are engaged in activities that offer assistance to underprivileged students (Cäcilia Weiermair-Märki, & Elisabeth n.d).

2.6.6 South Africa

Notwithstanding the fact that considerable effort has been put in the preparation of several Codes, Guidelines and White Papers addressing disability issues, there are minimal accomplishments in South Africa to guarantee holistic advancement with regard to disability inclusion.

Legislative documents include the Constitution of South Africa (1996), and more particularly the Bill of Rights. This outlaws all fashions of discrimination, guarantees the right to equality treatment and provides for measures to address historical inequalities. Within the context of education the South African higher education policy framework strongly addresses equity. Education White Paper 3: Transformation of the Higher Education System acknowledges both

the need to prevent unfair discrimination and to implement strategies and practices, which are developed to address historical inequalities. This is of great importance as it provides the framework for both the system and individual institutions in addressing the needs of SWDs. The National Plan for Higher Education focuses on traditional students, which include SWDs, as a group that should be facilitated to access higher learning. It also aims to actualize the provisions of the White Paper. Education White Paper 6: Special Needs Education covers inclusive education. Nevertheless, it makes little reference to higher learning. The White Paper has provisions for regional collaboration between institutions in providing services to meet special needs of PWDs but lacks implementation guidelines.

A misconception apparently lingers among some institutions of higher learning that existing laws do not provide for enforceable rights for SWDs. In the contrary, many legally enforceable instruments exist in South Africa, which students can invoke when their rights are violated as mentioned above. Based on the wrong perception, higher education institutions can afford to be non-committal in addressing disability issues (FOTIM, 2011).

2.7 Legislative and Policy Framework for Provision of Learning Supports and Accommodations for SWDs in Higher Education in Kenya

The legislative and policy framework for providing learning supports and accommodations for SWDs in higher education in Kenya reflects, to some extent, policy recommendations in other countries. The framework is outlined below.

2.7.1 The Persons with Disabilities Act (PDA) (2003)

The PDA (2003), Section 18, article 1 outlaws discrimination in recruitment solely on the basis of disability. The law requires universities to make necessary adjustments and modifications to

cater for the learning needs of SWDs. Section 19 requires the National Council for Persons with Disabilities (NCPWDS) to work "... in consultation with the relevant agencies of government to make provisions in all districts for an integrated system of special and non-formal education for persons with all forms of disabilities and the establishment where possible of Braille and recorded libraries for PWDs" (p.9).

Since the enactment of the PDA in 2003, some effort has been directed towards enhancing access to education for PWDs in Kenya, but gaps still exist. With regard to education, the Act contains very general statements as explanation of discriminatory practices that are prohibited. Whereas these provisions are important, they need to identify some key issues that universities need to address in order to make higher learning institutions accessible to PWDs.

Furthermore, while the PDA outlaws discrimination in education, among others, it does not acknowledge the diversity among PWDs. The Act did not put into consideration the impact of disability in relation to such factors as age and social economic background. In addition, as Mugo, Oranga, and Singhal (2010) pointed out, the PDA adopts the charity model in addressing education instead of addressing educational issues from a human rights perspective. The Act provides that the government has the responsibility to provide financial assistance to SWDs in form of scholarships, loan programs, fee subsidies, and other similar forms of support in both public and private institutions. Though the right to admission in institutions of higher learning is firmly articulated in section 18 (1), the Act does not address the situation where such an individual is unable to meet costs of education, particularly due to extra expenses occasioned by having an impairment (Mugo et al., 2010). Therefore, although there is an entitlement on admission, there lacks directives to compel the universities to provide supports and

accommodations to SWDs once enrolled in these institutions. Moreover, there is a lack of procedures and penalties in case to guarantee compliance. Consequently, the quality and quantity of accommodations provided to SWDs is left to discretion of the universities. Although the universities made some effort to develop procedures for ensuring compliance with the PDA, much of these efforts were occasioned by student and staff advocacy. This supports the argument that the PDA is deficient of enforceable implementation and evaluation component (Mugo et al., 2010).

There are other impediments to utilization of the Act. Firstly, the implementation of the Act is supposed to take place in piecemeal. The Minister of Gender Sports Culture and Social Services gazetted commencement of the said Act with the exclusion of section 24, 25, 35(1) (2), 39, 40 and 41. Consequently, the Act has to be implemented in phases although the excluded sections are critical for the progressive rights guaranteed to all PWDs under the Act (DRPI 2007).

Secondly, there is an apparent high financial implication related with the actualization of the Act. The excluded sections have serious financial implications both for the government and for the private sector. The Council has not yet formulated guidelines with respect to their application.

Thirdly, right from the onset, experts indicated that the Act would not be enforceable without first making amendments on some of its portions. The act has many inconsistencies, which may affect its operation. First, the Act is too liberal with its discretionary provisions and thereby predestines the Act to a future of uncertainties (DRPI 2007). The other is that the Act is too apt in giving discretionary powers where mandatory powers seemed the only viable option. The use of such phrases as ... "to the maximum of its resources" ... or 'suitable' creates room for a lot of discretion on anyone who may be bent on abusing the Act. This misgiving permeates the Act and

calls for amendment. Its presence in the Act is detrimental to the entire Act and the users (DRPI2007). Actually, this aspect seems to have found its way in university policies as reflected in a lack of commitment by Public Universities in providing learning supports and accommodations to SWDs. The support provided to SWDs is minimal and accommodations are provided in an untimely manner.

The foregoing should, however, not be taken to mean that the Act is deficient of any benefit to PWDs. Indeed, the mere enactment, assenting and the commencement of the Act is in itself a formal recognition of the afflictions of the PWDs, though belated. The appointment and inauguration of the NCPWDS is the first step in giving effect and life to the Act. Obviously, the existence of the Council is crucial to the actualization of the Act as this is the organ mandated to enforce much of the Act. The Council, though, has an uphill task in implementing section 7 of the Act, as the Act contains extremely complex provisions whose enforcement requires considerable time (DRPI 2007).

Sections 11 to 17 make wide range of provisions on the rights of PWDs. Many of these rights are now commonly referred to as progressive rights. Since these rights are designed to be realized progressively, it will take a long time before PWDs can enjoy their benefits. These rights include the right to education, health, equal opportunities, affirmative action exemption from certain taxes and so on. However, provisions of sections 12,15,18,25,28,29 and 41 are immediately applicable by PWDs. Students with disabilities in universities will therefore have to continue waiting for provision of learning supports. The pertinent question, therefore is, what impact will the delay in service provision have on the learning of students who are already enrolled in the universities and those who continue to seek admission?

The case for amendments of the Act is gathering momentum and a draft bill 2014 awaits assent by parliament. It is a fact that, in the absence of a proper policy and legal framework to ensure the inculcation of the human rights of PWDs in our national psyche and legal system the government may not act with sufficient speed to fulfill its part of the bargain (DRPI 2007).

Ngulu (2012) assessed whether the PDA complies with the Constitution of Kenya (2010) and the CRPD. He reported that while provisions of the Constitution are immediate, some of the most crucial provisions of the PDA, which came into operation in June 2004, would not take effect immediately. He found that the PDA provisions were not compliant with the CRPD, which is now part of Kenyan law. The provisions of the PDA have not been implemented fully in order to protect and enhance the rights and fundamental freedoms of PWDs. This research is significant as it points at gaps in the PDA, it was primarily concerned with compliance of the PDA to the Constitution and the CRPD. The current study is also concerned with the role of PDA in relation to the policy and practice in the area of university education. Ngulu's study conducted an analysis of all the provisions of the PDA. This is important to this study as it revealed the weaknesses of the PDA with regard to provision of rights to PWDs. However, it gave very little attention to education; this study's main focus is education. It therefore gives more weight and considers in detail the provisions of the PDA, the Constitution and CRPD, which concern education.

Kamundia (2010) in her critical analysis of the provisions of the PDA pointed out that the PDA provides for progressive implementation of its provisions. She argues that this could be used as a justification for delaying realization of the rights of PWDs. She proposes that obligations that are immediately applicable to international law should be considered immediately enforceable in Kenyan law. She also advocates for imposition of penalties for violation, creating disability

awareness, and importance of accessible transportation and buildings. The main focus of her study was employment for PWDs; the concern of the current study is university education.

2.7.2 The Special Needs Education Policy

The SNEP policy is intended to be a source of guidance for MOE personnel as well as other stakeholders in the provision of education to SWDs. It aims to guarantee full participation of learners with special needs on equal basis with their peers at all levels of education. This document covers various issues among them equal access to services (MOE, 2009). The disability policy reaffirms the rights of PWDs to “full participation and integration” (MOE, 2009, p. 18). One of the overarching objectives of the SNE sub-sector is to put in place measures that ensure all educational institutions are accessible for LWSN. The second objective is to enhance the use of specialized facilities, services, and assistive devices and technology, equipment and instructional resources. The third is to enhance quality and appropriate education in all educational institutions. The fourth is to build capacity of SNE personnel, including heads of educational institutions and to provide services required by LWSN in these institutions.

The following guiding principles, as provided in the policy, are relevant in provision of learning supports and accommodations to SWDs in universities.

The policy has provisions for all levels of education, including universities. Clearly underlined is that the policy will address, in accordance with international and national trends, issues related to access, equity, retention, transition, relevance...and quality of education. The policy addresses application and implementation with regard to financing and management of SNE at all levels of education, including higher education (MOE, 2009).

It is expected that the policy will enhance access, transition rates and retention of learners with special needs in formal learning institutions, including universities. To successfully implement the policy, concerted effort of SNE providers and other players is envisaged. The special needs education policy is the first policy document that directly addresses the needs of SWDs at higher education, the earlier policies being silent about this issue. One of the important elements of SNEP (2009) is that it recognizes SWDs as needy and therefore they have a right to special assistance. It is stated in the policy that the MOE shall ensure equal opportunity in access and inclusion of individuals with special needs and disabilities in education programs at all levels, including universities.

The Policy, on the other hand needs clarity as far as its implementation is concerned, particularly with regard to university education. Though the policy was launched in 2010 it was not well disseminated nor was it implemented, as resources were not allocated to it (Bii & Taylor, 2013).

Kenya Constitution (2010), in its Bill of Rights, Chapter 4, Section 54 outlines the rights of PWDs to equal access to education and supports that should be given to this category of citizens to enable them pursue education at all levels with least challenges. It affirms a number of entitlements for a person with any disability.

(1) A person with any disability is entitled—

(a) to be treated with dignity and respect and to be addressed and referred to in a manner that is not demeaning;

(b) To access educational institutions and facilities for persons with disabilities that are integrated into society to the extent compatible with the interests of the person;

(c) To reasonable access to all places, public transport and information;

- (d) To use Sign language, Braille or other appropriate means of communication; and
 - (e) To access materials and devices to overcome constraints arising from the person's disability.
- (2) The State shall ensure the progressive implementation of the principle that at least five percent of the members of the public in elective and appointive bodies are persons with disabilities (p.37).

From the foregoing, it is evident that Government of Kenya has shown considerable effort in putting in place legislation and policies meant to ensure access to education and provision of necessary supports to SWDs. However, compared to the developed countries, the laws lack enforceability due to flaws in the laws and policies as well as lack of guidelines for implementation. Hence, as has been happening in the developing countries whenever there is a concern in legislation that hinders provision of supports or SWDs, the government should ensure that the laws and policies are reviewed to enable their implementation.

2.8 The Status of Kenyan Higher Education System in Relation to SWDs

In the following section the status of Kenya education system in relation to learners with disabilities is discussed. It is imperative to draw attention to the fact that education gives approaches to lessening detriments and eliminate obstacles of more relegation to the fringe of the society. On the other hand, preclusion from learning increases detriments and contributes to preclusion in society. In Kenya, the government has been promoting special needs education. For instance, the number of special schools has been on the rise as well as the number of units attached to special school. The rising number of children with disabilities has paralleled this

expansion in the last one decade (MOE & MOHEST, 2012). However, provisions for learners with disabilities need to be improved in these learning institutions in order to ensure access, equity and quality in these public institutions as, as described below.

The Persons with Disabilities Act, Section 18, Article 1 forbids discrimination in recruitment of SWDs and directs schools, tertiary and higher learning institutions to make adjustments to meet the special needs of these learners. Section 19 obligates the National Council for Persons with Disabilities to work "... in consultation with the relevant agencies of government to make provisions in all districts for an integrated system of special and non-formal education for persons with all forms of disabilities and the establishment where possible of Braille and recorded libraries for PWDs" (p.9).

The Education Policy (1994) indicates that on completion of general education, students transit to secondary school and then to University. However, the government does not offer needed supports to make university education accessible for SWDs. Consequently, majority of SWDs are excluded from higher learning. As a result they have minimal chances of obtaining decent employment and participation in society. The small number of students, who with minimal support, passed successfully through all the barriers in primary and secondary educational institutions, encounter new and more serious barriers in universities. In these institutions SWDs depend on the goodwill of their peers and individual lecturers for assistance since there is no organized form of support (Kochung, 2003). Thus, charity model of disability still exists in universities with regard to providing for the learning needs of SWDs. There is therefore urgent need for universities to shift to the social model of disability in addressing disability issues.

Reliable data is nonexistent on the extent of preclusion or participation of PWDs in higher learning in Kenya. To date, the process of setting development goals and information gathering have not included a significant minority consisting of youth with disabilities. Globally, it is approximated that 10- 20% of any children of school going age has exceptional learning needs (ILO, 2004; UNESCO, 2001). The proportion of PWDs in Kenya is approximated at 10 percent of the total population. There is no accurate statistics on the number of PWDs in Kenya. Using the United Nation's estimate that for any given country at least 10% of its population has a disability, then at least 3,280,000 Kenyans fall within this sub-population. Lack of reliable data on the number of people who have disabilities in general and young people accessing higher education in particular makes it difficult to plan for provision of necessary supports to ameliorate the effects of disability.

At university level, the enrollment rate of SWDs is unacceptably low. Indeed, this is a worrying situation in a country where access, equity and equality are articulated as the main goals of the Ministry of Education. It is necessary to promote mobilization and awareness programs as well as design and implement flexible curriculum that is learner-centered and make universities all-inclusive institutions. Data on the number of children of school going age, and those currently enrolled in all educational institutions, including universities, is crucial for planning for provisions of services and supports to enable this category of learners to access and successfully complete their studies at all levels of education. Such data is necessary in informing policy and practice for the learners with special needs. The current study endeavoured to bridge this gap by providing data on the status of policy and provision of learning supports and accommodations for SWDs in Kenyan Public Universities. Keeping in mind the end goal to attain the objectives of

the Education and Policy (1994) unique consideration must be paid to students who are at danger of dropping out, have learning challenges or impairments. It is high time to include special needs education as an essential component in the overall education sector development. Other African nations have effectively begun to do this and have resolved to change policy and practice to guarantee consideration of SWDs at advanced levels of learning, for instance, Uganda and Zambia (Daniel, 2003).

A number of public universities have launched Special Education Degree courses. Among them are Kenyatta University, Maseno University and Moi University (UNC National Report, 2011). Some private universities also offer similar courses in special education. Though these institutions contribute significantly in preparation of teachers to handle learners with disabilities, these teachers are prepared for primary and secondary levels of education. There is no program to prepare teachers to handle SWDs at university level of instruction and to prepare specialized materials for SWDs at this level. Consequently, there is a gap in this area and an urgent need to launch appropriate programs to address this need.

2.9 Higher Educational Policy in Kenya

National policies in education are indeed the road maps of practices in education in any country. Kenyan education has been guided by various policies since independence. Policy documents have been in the form of commissions, presidential working parties, committees and development plans to guide education practice. This is evident from the connection between the government of Kenya and international conventions such as those of UNICEF, and the other development partners (Oduol, 2006). However, the degree to which policies succeed will depend

on certain variables: environment, resources, political, economic capacity and the implementation process.

University education plays a key role in social-economic development globally. It has the potential to increase the social equity and mobility, social cohesion, productivity and innovation. Studies have shown that appropriate and relevant university education contributes significantly in poverty reduction and making countries competitive. This is even more critical for PWDs who have historically been relegated to the margins of mainstream society and considered “good for nothing” (Macha, Kieti, & Ngunyi, 2007). Critical in actualization of the goals of Vision 2030 is the ability to utilize the knowledge generated from university education. Nevertheless, it will not be possible to realize Vision 2030 if PWDs are not included equitably in higher education. The Government’s long-term policy is to provide a framework for a sustainable, competitive and autonomous national university system.

The Government’s commitment to development of university education is evident in its continued allocation of resources to the sub-sector. Although there are notable achievements, university education still faces significant challenges, among them access, equity, quality, relevance, financing, gender and regional disparities, faculty quality and inadequate human resource, particularly with regard to SWDs. Rigid admission criteria and inadequate financial support and lack of knowledge and skills on disability among academic and support staff exclude SWDs from higher education. As a nation, Kenya will only realize the aspirations of a prosperous internationally competitive knowledge economy if the country’s university education system is overhauled to among others significantly increase access, while ensuring equity for SWDs by putting in place inclusive policies and providing an enabling environment for SWDs to successfully complete their degree programs. Education policies in Kenya provide a

comprehensive framework for provision of quality, equitable relevant education at all levels. However, with regard to education for PWDs, emphasis is on primary and secondary levels (Ndurumo, 1999) with little recognition of tertiary education (Kochung, 2011). This study endeavored to unravel how education policies facilitate creation of enabling learning environments for SWDs in higher education institutions in Kenya.

2.10 Policy and Practice for SWDs in Kenya

Persons with disabilities often encounter obstacles related to infrastructure and societal attitudes that prevent them from participating and enjoying human rights on equal basis with the non-disabled (Morumbasi, Mbatia, Tororei, Kamau, & Burugu, 2007). These barriers hinder PWDs from reaching their potentials with regard to social, economic and political development. One way to deconstruct these barriers is through legislation (ILO, 2004; Morumbasi, et al. 2007). Examples of laws that provide some form of protection for PWDs in Kenya include: the Kenya Constitution, (2010) and the PDA (2003). In addition the Special Needs Education policy was formulated to ensure PWDs access quality equitable and relevant education at all levels, including higher learning. Given that historically PWDs have been relegated to the margins of the society, efforts should be made to encourage, initiate, and fund policies that create opportunities for PWDs to realize their full potential through participation in development processes. One of the key concerns of this study therefore was to provide information that would be useful to Public Universities in developing policies for addressing disability issues.

In Kenya, dating back to independence in 1963, provision of education has basically been a responsibility of the government. Thus the government provided most resources required as per existing policy. However, over the years resources have diminished while the needs have

increased exponentially. While enrolments in public schools have been on steady rise, resources have not matched this rise. To address this issue the government has progressively created and introduced policy measures such as cost sharing so that education could still be provided albeit with many challenges for poorer families. For SWDs this was a double tragedy since most of them have poor backgrounds and have to meet extra costs occasioned by having a disability.

Presently, Sessional paper No. 1 of 2005 on Education, Training and Research provides guidelines on operations of the Government in the education sector(MOE, 2012).In special education sub-sector, the Koech Report (2000)was the first policy document to explicitly address disability issues at higher education. The report examined the special educational needs of PWDs and ways of enhancing their involvement in daily activities (Ochoggia, 2003). Since then, significant effort has been put towards enhancing government involvement and interest in the education of PWDs in the country, albeit, much of this effort has been directed at primary school level. Nevertheless with respect to secondary and postsecondary education, there are limited policies to address issues related to disability, an indication that disability is not given much consideration in Kenya's higher education. This is not to deny the significant milestones in the county's effort in addressing the needs of PWDs. Actually, the passing of the PDA of 2003 and the recognition of the right to education for PWDs in the Kenya constitution (2010), Bill of rights attest to remarkable progress. The argument is that more concerted effort is necessary, especially with respect to enforcing these legislations and policies in higher education contexts and this constitutes the gap that was addressed in this study.

Generally, priority to accessing education in Kenya is given to those who are considered to have highest potential to contribute positively to the family income and the country's economy (Oloo, 2006). As a matter of fact, there are very few provisions in policy frameworks to address

educational needs for PWDS, particular at higher education, and this is a worrying situation. This calls for a review of the existing policies to make them inclusive and to develop clear implementation frameworks.

2.11 Education Policies for SWDs in Kenya

The Ministry of Education together with stakeholders and partners has developed the National Special Needs Education Policy (SNEP) framework to address critical issues related to education for learners with special needs at all levels of education, including universities. This is detailed under the Legal and Legislative Framework for Provision of Learning Supports and Accommodations to SWDs in Higher Education. In line with the Kenya constitution (2010) are policies on inclusion among them the disability mainstreaming policy, which requires learning institutions to sign performance contracts on mainstreaming SWDs. The institutions are also required to create a directorate to monitor the implementation of the activities related to inclusion of SWDs. This policy is expected to promote inclusion and address barriers that hinder full participation and enjoyment of their rights to education on equal basis with their nondisabled peers. Educational institutions are required to embed disability issues within programming, project design, policies, protocols and procedures as well as in staff training. Consequently the number of PWDS enrolling in higher education institutions is expected to increase. The impact of this policy was a concern of this study. The study investigated the policies on disability that existed in Public Universities. It also examined the views of SWDs regarding appropriateness and range of accommodations provided to them by Public Universities and the views of faculty on the challenges they faced in supporting SWDs during instruction.

2.12 Higher Education Policy on Disability in Kenya

The University Policy (2012) states that the population of PWDs in Kenya is estimated at 10 percent of the total population; about 25 percent of these are children of school-going age. At the postsecondary level, the enrollment rate for SWDs is very low. The Government in addressing the low enrollment commits to mobilization and development of awareness programmes to eradicate taboos and beliefs associated with disability as well as ensure the need to make all learning institutions inclusive through removal of barriers.

The Universities Act (2012) Section 18(1) prohibits all individuals and educational institutions from denying any person admission to any course of study solely on the basis of their disability, if the person has the ability to acquire substantial learning in that course. In addition, Section 18 (2) obligates learning institutions to put into consideration the special needs of PWDs with regard to entry requirements, curriculum, and appropriateness and accessibility of school facilities.

2.13 Disability Policies in Institutions of Higher Learning in Developed Countries: USA, Canada and UK

This section examines disability policies that govern provision of learning supports and accommodations in developed countries in order to understand the current practice and trends with regard to policy and provisions.

2.13.1 Accommodation Policies and Procedures

It is important to note that generally, a review of literature on policy and provisions for SWDs revealed that in U.S practically every postsecondary institution must have a person, usually

referred to as the Section 504 Coordinator, ADA Coordinator, or Disability Services Coordinator, who coordinates the institution's compliance with Section 504, Title II, or both laws (these laws are discussed in detail in the legal and legislative background section). The ADA coordinator is knowledgeable in disability issues and disability legislation. Student with disabilities contact that person for information about how to address their concerns (U.S. Department of Education, 2007).

The review also indicated that most of the universities have an Office of Disability Services whose major responsibility is to see that students receive accommodations and ensure that the general campus environment is accessible to SWDs. Disability Services Coordinator usually heads this office. The Disability Service Coordinator is a point of contact, and maintains confidential files relating to disability services, medical verification of disability, and accommodations provided for students (Oklahoma State University-Tulsa, n.d). The unit also has qualified interdisciplinary team of personnel.

Most universities in U.S and Canada have developed and implemented disability policies. These policies derive from non-discrimination legislations of respective countries. For instance, in the U.S the institutional disability policies have been developed to enable the universities comply with Section 504 of the Rehabilitation Act of 1973, and the Americans with disabilities Act (ADA) of 1990. This is detailed under the legal and legislative framework for provision of learning supports and accommodations to SWDs in higher education section.

In U.S, obtaining accommodations in postsecondary education is very different from getting accommodations in secondary school. While high school has federally mandated procedures for obtaining accommodations, such as individualized education plan (IEP) and section 504 Plans, the process for obtaining post-secondary accommodations is less routinized and can vary from school to school (CAR, Autism Roadmap, 2014).

In almost all post-secondary institutions, there is a disability service unit headed by an officer who has the responsibility for reviewing student's disability documentation to determine eligibility for accommodations, auxiliary aids and services, and adjustments in accordance with federal and state laws. Additionally, the office collaborates with lecturers, staff, and university departments to assist them in providing accommodations to ensure access to university programs, activities, and services for students with documented disabilities. The universities define roles and responsibilities in providing accommodations. This promotes the idea that accessibility for SWDs is a collaborative effort between staff, students, lecturers and administration. Notably, the universities have disability policies and procedures on recruitment and admission of SWDs. In addition, they have policies and procedures for requesting for accommodations and other auxiliary services.

2.13.2 Policies and Procedures on Recruitment and Admission of SWDs in Higher Education

Generally, a large number of SWDs want opportunities on equal basis with their nondisabled counterparts with regard to higher education, job and a successful life (Palombi, 2000). Higher education programs have a positive correlation to employment and success for both individuals

with and those without disabilities (Fairweather & Shaver, 1990). Students, who had no hope of acquiring higher education prior to enactment of Section 504 of the Rehabilitation Act of 1973, realized that universities were more responsive to their needs than before this legislation (Palombi, 2000).

2.13.3 Recruitment and Attraction Process

Three aspects, community, equality, and human dignity are crucial since a commitment to these values enable those responsible for student affairs to better help minority groups, including SWDs, and offer potential students an environment that is comfortable and a place where they feel a sense of belonging. Palombi (2000) identified the following strategies for attracting SWDs to a higher learning institution:

- When visiting with students, make sure they know about visiting the campus and make certain their on-campus visit focuses on services available to SWDs.
- Target literature distribution to high school SWDs.
- Ensure representatives that is, admissions counselors, recruiters, and other staff members that visit high schools should be able to articulate the type and extent of special services that are available at their respective institutions (p. 31).

Colleges are prohibited to have admission procedures that discriminate against SWDs in the admissions process; nevertheless, students are required to meet legitimate admissions requirements. However Thomas (2000) indicates that college "officials will need to provide an individualized assessment of the qualifications of SWDs to ensure that traditional criteria

have not arbitrarily screened out otherwise qualified applicants. Also, being qualified may at times require the college to provide the student with appropriate and reasonable accommodations" (p. 254). Several court cases and the U.S. Office of Civil Rights have upheld the idea that if a student is disabled and qualified, higher learning institutions should endeavor to provide accommodations that enable the student to participate in its programs (Thomas, 2000). "Once a student has sufficiently documented that he or she has a qualifying disability, a college is responsible for providing reasonable accommodations or modifications that do not result in unfair advantage, require significant alteration to the program or activity, result in the lowering of academic or technical standards, or cause the college undue financial hardship" (Thomas, 2000, p. 255).

The National Longitudinal Transitional Study of Special Education students conducted a National transition study; the study followed secondary-level special education students from high school to early adulthood (Fairweather & Shaver, 1990). These researchers reported that the number of young PWDs in higher learning institutions were significantly below the national mean for their counterparts without disabilities and for those who belonged to minority groups, and those of low economic backgrounds (Fairweather & Shaver, 1990). The reasons given for this disparity were inadequate training, and preparation in secondary school, inaccessibility to college readiness programs, poor collaboration between secondary school and post-secondary institutions, and lack of programs that prepare SWDs for the journey from high school to higher learning (Fairweather & Shaver, 1990).

The information that SWDs had obtained during their visits to the higher learning institutions or interaction with institutional representatives had a direct influence on their selection of the type of postsecondary institution to attend (Miller, Rzonca, & Snider, 1991). These findings support a case for a stronger collaboration between high schools and universities (Fairweather & Shaver, 1990).

In order to attract more SWDs, it is critical for staff from the universities to make sure that the information that SWDs require about the institutions is available to them. This would be achieved through reach out activities such as staff visits to secondary schools and having meaningful interactions with SWDs, arranging on-campus visits that focus on supports and services available to SWDs, or widely distributing literature to the secondary school to SWDs. Effective explanation by the institutional representatives about what type of accommodations they offer to SWDs and the extent will be critical. This is basically because one of the key considerations for SWDs in choosing the university to attend is the range of available accommodations and other auxiliary services (Kavale & Fornes, 1996). Students with disabilities should conduct a comprehensive analysis so as to be aware of and be knowledgeable of “ 1) how to read and evaluate the many guides available; 2) how to locate services in colleges not listed in the guide; and 3) how to evaluate the located services” (Cowen, 1993, p. 40). Admissions and Students affairs personnel ought to be quite knowledgeable about the services and accommodations that the universities that they represent provide (Palombi, 2000).

The successful inclusion of SWDs in higher learning demands a comprehensive programmatic approach (Siperstein, 1988). A review of the literature on the recruitment practices of universities in the developed countries shows that these institutions have over time designed

outreach programs to increase the number of traditionally underrepresented students in universities, that is, racial minorities, first-generation students, ethnic and racial minorities, and women. The programs aimed to encouraging the enrolment of these groups and help them in transitioning from high school to college. Similar strategies could serve as a framework for developing programs for SWDs in Kenya.

There are initiatives that universities, including Kenyan Public Universities, could emulate for effective recruitment of SWDs. For instance, Arizona State University (1994), Hispanic Mother-Daughter Program, referred to as “Second Generation” could provide a framework for institutions in recruiting SWDs. This initiative has been useful in coaching parents and to gain their support in preparing their daughters to gain college education. Such a program could be modified to assist SWDs who wish to pursue university education and as a result join the university. For instance, a program of this nature could give assistance to parents in establishing the distinctions in legal authorizations and provide them with useful information to guarantee that their son/daughter joins university classes that prepare him/her for actual university life. In absence of such information, parents might have an assumption that the experience that the child had acquired through high school period equips them adequately for university and later discover this was not the situation when their son/daughter fails to gain acceptance into the university.

Recruitment is a crucial initial process in encouraging SWDs to seek admission to universities. Student affairs personnel responsible could provide help to these students in making a transition from secondary school to university. These members have the necessary knowledge and skills as well as experience required to design supports that could reach that goal as well as assist

students, parents and secondary school staff gain knowledge and understanding of institutions and type of accommodations and related services that they provide. Students with disabilities then need an admission process that addresses their special needs to facilitate their access to higher learning institutions (Holley, 2000).

The type and extent of available accommodations and other support services are critical to SWDs in selecting a university to attend; nevertheless, the manner in which questions are addressed can assist a student deciding which university (s) to pursue.

2.13.4 Admission Process for SWDs in USA Higher Education

Generally, seeking university admission through application and finally gaining admission is usually difficult and cumbersome for all students, and more so to SWDs. In the US, a large majority of SWDs transit from high schools where the school staff members are aware of their needs and provide suitable supports as required by Public Law 94-142 to institutions in which students are expected to disclose their disability, provide documents as proof of having a disability, and then request for the needed supports by themselves (Brinckenhoff, 1996, Fairweather & Shaver, 1990, HEATH, 2000; Scott, 1991). Crucial to SWDs in application and admission process are certain issues, among them confidentiality and identifying oneself as having a disability. Also of significant importance is the use of standardized test scores in making admission decisions and requesting for supports and services.

Under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA) it is unlawful for a tertiary institution to inquire about a student's disability before admission (White, 1998). An officer of the office of the Civil Rights (OCR) of the U.S Department of Education indicated that, "...a high school counselor might honestly communicate

the contents of a student's curriculum, which may imply a learning, or other, disability, but may not disclose or discuss the disability itself without parental consent" (White, 1998, p. 8). What this means therefore is that the student has the responsibility to declare his disability to the university (White, 1998).

Declaring a disability is crucial in the admission process. In the initial stages of this process, SWDs have to decide whether or not to request accommodations that they require for taking tests that are a requirement for admission. The accommodations that the education testing services offers to SWDs who self-disclose as having a disability and support this with acceptable documentation are large print version, extended time on tests, readers, cassette versions, and special equipment (Belch, 1995). Appearing on the test results is a notation indicating, "nonstandardized" test administration. Certainly, "the key issue for applicants in availing themselves of these particular accommodations during the testing procedure is that they relinquish confidentiality of disability by virtue of the non-standardized notation on the score reports that are submitted to the institution (Belch, 1995, p. 104). Thus, SWDs find themselves in the predicament: that it is not possible to get testing adjustment and supports and uphold confidentiality in the preadmission process (Holley, 2000).

Regardless of whether a student voluntarily chooses to disclose disability, standardized test scores have been used among the criteria in judging whether an applicant meets entrance requirements. However, for PWDs use of standardized test scores could have undesirable impact on admission. Some standardized tests have a discriminatory result against SWDs (Jarrow, 1992; Rothstein, 1991). Students who have learning disabilities and hearing impairments, for instance,

attain lower grades than their peers in university entrance tests (Bennett & Ragosta, 1985). The number of regular high school English courses that a student completes with a grade C or better and overall grade point average (GPA) have been reported to be the best predictors of success for students with learning disabilities (Vogel & Alderman, 1992). In accordance with recommendations for non-disabled applicants, admission officials need to consider high school grades (as reflected in high school courses and GPA) more vigorously than admission test scores for SWDs (Vogel & Adelman, 1992). A study conducted on admission procedures involving five hundred and two (502) tertiary institutions showed that nearly fifty percent (50%) of the surveyed institutions do not adjust admission procedures or requirements for SWDs who self declare in the admission process (Vogel, Leonard, Scales, Hayeslip, Hermansen & Donnelis, 1998).

The admissions process is already time consuming and busy. A preadmission seminar conducted by student affairs officials would assist SWDs in obtaining useful information that they require during the application process. It is appropriate to encourage students who may require accommodations to disclose their needs soon after they have been accepted by an institution. Service provider contact information ought to be provided in the application packet. Admissions officials should initiate and maintain strong collaborations with personnel who serve SWDs in order to gain the required information and guidance from them regarding self-disclosure. Roundtable advising for SWDs, their academic advisor, members of the institution's disability support services office, and any other participants in that student's education is crucial in this process.

2.14. Types of Learning Supports and Accommodations Provided to SWDs in Universities in United States of America

This section outlines the learning supports and accommodations commonly provided to SWDs in higher learning in the U.S. It is aimed to give a glimpse into the supports that universities in developed world provide for this category of learners and to draw a comparison with provisions for the students in the Kenyan context.

Typical accommodations in the US-based universities include the following, though some institutions provide more:

- Alternative test arrangements, such as extended time, taking the test in a separate room, having the test readout loud, having a scribe for the test.
- Re-assignment of a class to an accessible location for example, moving the class to another building if the building is not physically accessible.
- Alternative assignments for example, preparing an oral report instead of a paper.
- Sign language interpreter.
- Assistive listening devices, such as FM transmitters/receivers.
- Laboratory assistant for laboratory classes.
- Course substitution, if the course is not integral to the student's course of study (e.g., taking French history instead of French language).
- Materials provided in alternative print (e.g. Braille, large print, tape disk).

- Early registration (e.g. being allowed to register before other students to address disability-related issues).
- Extended time to complete class assignments.
- Permission to tape record lectures.

(Aune, 1998: 189).

2.15 Empirical Studies Conducted on Provision of Learning Supports and Accommodations to SWDs

It is acknowledged that in order to be successful in school, SWDs must be provided with appropriate support services (Stodden, Whelley, Chang, & Harding, 2001; Troiano, Liefeld & Trachtenberg, 2010). Availability of transitional services during the first year is very crucial (Dutta, Segurie-Geist, & Kundu, 2009; Mpofo, & Wilson, 2004). It is estimated that 88% of U.S.-based postsecondary institutions provide services to SWDs (Raue & Lewis, 2011), albeit to varied extent. According to Black, Smoth, Chang, Harding & Stodden (2002), two-year colleges are more likely to provide necessary support services than the four-year institutions, and the quality of these services could influence a student's decision on what college to attend (McLearly-Jones, 2007).

Stodden, Whelley, Harding, and Chang (2000) conducted a survey of colleges in the U.S. regarding the types and frequency of educational supports offered to SWDs. The most common were: testing accommodations, note takers, personal counseling, and advocacy. In addition, organizational skill assistance, study skills programs, and career related services were often provided. Rarely offered were disability-specific scholarships, assessment and evaluations, real-

time captioning, assistive technology evaluations, and study abroad. Research in Israel found that a time extension on exams was the most common accommodation (Davidovich, Schacham, & Margalit, 2012).

Types of accommodations can vary based on circumstances. Pingry, O'neil, Markward, and French (2012) have presented an analysis of the types of accommodations offered to students by categories of disability. The results were reported overall as well as by three disability categories: cognitive disabilities, mental disorders, and physical disabilities. Cognitive disabilities included specific learning disability, attention deficit hyperactivity disorder (ADHD), and traumatic brain injury or acquired brain injury. Mental disorders are psychiatric disorders such as schizophrenia, depression, bipolar, and anxiety. Physical disabilities were conditions such as visual impairment, hearing impairment, mobility problems and chronic health conditions such like cerebral palsy, diabetes, heart/lung problems kidney disease, cancer, and arthritis. The results were that irrespective of the type of disability, the most frequent accommodation is note-taking services for all conditions except mental disorders, for which it is distraction-reduced tests.

The U.S Department of Education (1994) conducted a Survey on Deaf and Hard of Hearing Students in Postsecondary Education. This survey was requested by the Office of Special Education and Rehabilitative Services of the U.S. Department of Education. One of the main objectives of the study was to gather information regarding support services that these postsecondary institutions provided to these students. However, Gallaudet University and the

National Technical Institute for the Deaf, were not included in the survey hence the information presented does not reflect the situation in these two institutions.

One of the findings of the survey was that 1,850 institutions, approximately a third (37 %) of the 5,000 two-year and four-year postsecondary learning institutions provided accommodations and auxiliary services dedicated to students with hearing impairments in academic years 1989-90 and 1992-93. Over three quarters (79%) of the institutions that had hearing impaired students as part of the student population in 1989-90 and 1992-93 mentioned that they provided learning support and services to hearing impaired learners during those years.

In academic year 1992-93, a total of 16,100 students with hearing impairments were provided with specialized support services by two-year and four-year postsecondary educational institutions. Institutions cited providing services to 4,120 students who were deaf, 5,270 partially-deaf students, and 6,720 students whom the institutions did not distinguish as being deaf or partially deaf.

Notetakers were provided to students with hearing impairments during class by three quarters (75%) of the institutions that provided any support services to students with hearing impairments in 1989-90 through 1992-93 academic years. About two-thirds (67%) of these institutions provided sign language interpreters and tutors to give some help with ongoing coursework (65 %)). Thirty three percent (33%) of the institutions that had provided any support services reported providing assistive listening devices. Twenty percent (20%) of the institutions provided oral interpreters. Approximately a quarter (29 %) that reported providing any support services mentioned that they provided some other type of support service among them, testing

accommodations, counseling or advising, assistance with registration, classroom seating arrangements, tape recording of class sessions, and advocacy or consultation with instructors.

During academic year 1992-93, two-year and four-year postsecondary education institutions provided 8,700 students with hearing impairments with classroom notetakers, 8,100 with sign language interpreters, 5,320 with tutors to help with ongoing coursework, 1,070 with assistive listening devices, and 970 with oral interpreters. Institutions indicated that they provided other support services of some kind to 3,700 students with hearing impairments in 1992-93.

Holloway (2010) observes that PWDs are likely to seek admission in a university if learning supports are available. The researcher reports findings of a small-scale study of the experience of university education from the perspective of SWDs at a university in the UK. She indicates that among the factors that may cause SWDs to attain poor grades are inadequate finances, inaccessible buildings, inaccessible library system and inappropriate exam procedures.

Halloway found that the universities practiced the medical model of disability. She proposes some measures to ensure inclusion of PWDs, this includes a separate disability committee to deal with issues of PWDs. She also proposes the need for someone to advocate on the behalf of PWDs. Holloway's study is significant as it proposes important measures to provide support for SWDs. It also points at some of the factors that this study needed to consider in assessing whether universities were accessible to SWDs. The study does not however involve the views of the faculty and university administrators. It does not also concern itself with students with visual impairments, hearing disabilities, speech and language disorder, those with albinism and those with epilepsy. The current study included students in these categories.

Vickerman and Blundell (2010) state that universities need to hear the voices of PWDs. Otherwise the Universities will remain ignorant of the problems faced by PWDs. The study reported on the findings of PWDs lived experiences in the United Kingdom. They identified key issues that need to be addressed in order to enable access and entitlement to university education. These include pre-induction, commitment by universities to facilitating a barrier free curriculum, consultation and empowerment of SWDs' views, institutional commitment to develop students support services and embedding of personal development planning. Tinklin, Riddell and Wilson while examining policy and provision for PWDs in higher education in Scotland and England state that institutions can be measured on compliance by having a disability statement, arrangements in place for addressing disabled students' needs in examinations, application and admission procedures relating to needs of SWDs, disability policy and quality of provision for students.

The two studies (Vickerman & Blundell 2010; Tinklin, Riddell & Wilson, 2004) contribute immensely to this study as they emphasize the importance of seeking views from PWDs, which this study sought to do. They also point out to the factors that should be addressed to enhance access to university education for PWDs. The current study is important because it is done in the Kenyan context.

In the Kenyan context, a few studies have been conducted on provision of learning supports and accommodation to SWDs. These are discussed below.

Rukia (2010) conducted a case study on institutional provisions and practices facilitating disability inclusion in the University of Nairobi. The researcher reported that there is generally an absence of disability-related agenda and disability issues lack adequate attention within the

education system. The study identified barriers to participation and potential for SWDs that included infrastructural inaccessibility, communication challenges, inappropriate attitudes and shortage of instructional resources. However, the university had made some effort to provide accommodations to SWDs but these accommodations were not adequate in meeting the needs of the students. Student with disabilities did not receive support to participate in sports, cultural and leisure activities. These students therefore did not benefit from leadership and team-building benefits derived from these activities. The study concluded that a supportive higher learning environment is necessary for participation of SWDs. The study recommended that the university administration should implement the disability policy and come up with an action plan to make programs and services accessible to SWDs.

A case study conducted by Anambo (2008) on library service provision to SWDs examined the challenges faced by SWDs in seeking library services at the Jomo Kenyatta Memorial Library (JKML) of the University of Nairobi. The aim was to specifically examine the responsiveness of the library facilities, attitudes of staff towards SWDs and the state of the policy environment. Data was gathered through self-administered questionnaires to SWDs visiting the JKML. In addition, interviews were conducted for the visually impaired students as the questionnaires were neither in Braille nor in large print. As well the questionnaires were administered to staff at various service stations and senior management staff of the library.

The evidence emanating from the study strongly indicated that provision of library services within JKML to SWDs was largely characterized by a combination of structural inadequacies, staff incapacity, and absence of internally formulated compliance with national and international policy frameworks. In particular, the study revealed that the library had no facilities, resources

and equipment such as lifts, spacious ramps, Braille materials, and sound amplification installations required by SWDs. The attitude of staff towards SWDs was also found to be unfavourable. With regard to the policy environment, the findings indicated that the library neither had its own policies on service delivery to SWDs nor complied with the policy instruments nationally and internationally developed. Thus, the study concluded that the library does not have the needs of SWDs at heart and the situation may not change in the near future, noting that comprehensive integration of the needs of SWDs is yet to be accorded its due regard in the system. The study makes several recommendations for consideration towards this to the research community, library decision makers, the staff at the various library sections and to SWDs themselves (2008).

Opini (2012) examined the factors that motivate female SWDs to participate in university education in selected Public Universities in Kenya. The factors include, economic independence, attainment of personal aspirations of becoming a better person, self worth and identity, credentialism and the need to continuously prove themselves more than their non-disabled counterparts before being acknowledged in society. He points out that university education opens the career dreams of PWDs and breaks the social, economic and psychological barriers and restrictions created by society. Although this study only collected data from women, the reasons for seeking university education are universal and are the same for all PWDs. Opini points out that PWDs have to fight harder than their non disabled counterparts to attain their ambitions and succeed. The study significantly points out that universities should therefore guarantee accessibility and the necessary financial and other types of supports to ensure PWDs achieve their dreams just like anybody else. The study is important in that it recognizes the right to

education for PWDs. It also points out that it is necessary for PWDs just like anyone else to obtain university education. Opini however restricted himself to women students and the factors that motivate them to attend university; this study sought views from both male and female students, administrators, faculty members, and service providers and the main focus being status of policy and learning supports and accommodations for the students.

2.16 Research Studies on Experiences of Faculty in Teaching SWDs

Insufficient knowledge in instructional approaches and with students who have special learning needs is common in post-secondary settings (McGuire and Scott, 2006). Roche and Marsh (2001) as cited in Ginsberg and Schulte (2008) point out that a myth persists that faculty members who acquire terminal degrees have knowledge and requisite pedagogical skills for teaching positions. Only a small number of professors receive professional training to prepare them for teaching (Hativa, 2000; Hativa, Barak, & Simhi, 1999; Roche & Marsh, 2000). Instead a large number of professors report learning some skills on the job and by trial and error with minimal support or planned supervision. Professors may have “fragmented knowledge and unfounded beliefs about what makes instruction effective” (Hativa, Barak, & Simhi, 1999, p. 3) due to insufficient professional preparation. Insufficient awareness on diverse learning needs represented in their classrooms is probably among areas in which they have limited knowledge in effective instructions. Many university instructors focus more on content at the expense of teaching strategies (Shaw, Scott & McGuire, 2001).

Given the lack of professional training in higher education instruction coupled with little awareness on persons with impairments together with increasing enrolment in all disability categories at higher learning, questions arose regarding the way university academic staff were

handling SWDs during classroom instruction. Thus, it was also a concern of this study to learn more about the lecturers' experiences in handling SWDs in their classrooms.

Administrators and professors have crucial roles in providing enabling environment for SWDs (Wilson & Getzel, 2001). Although many professors are willing to engage SWDs in positive ways (Gilson, 2010b) they may inadvertently present obstacles for these students. Some faculty members have not received sufficient training in providing accommodations to SWDs (Cawthon & Cole, 2010; Finn, 1997; Tagayuna et al., 2005) or have not had interaction with SWDs (Leyser et al., 1998). The outcome is that professors often lack understanding on ways to adjust their instructional strategies to meet the needs of students with varied learning styles (Stodden et al., 2003).

In a qualitative study Farbman (1983) examined the experiences of science professors teaching SWDs from a large urban university. The professors indicated that they had contact with students with motor disabilities or those with visual impairments. With respect to provision of accommodations to SWDs in their teaching the study found that some professors usually modified their teaching approaches, and provided copies of their lecture notes, and gave extra time out of class schedule. Certain professors however were not willing to provide these accommodations. These SWDs, with the exception of Braille terminals rarely utilized assistive technologies. Mostly, academic accommodations were related to scheduling such as extra time or scheduling of classes. The accommodations that a student received seemed to be related to the manner in which the student approached the professors. The better the advocacy skills in expressing their needs, the more positive was the outcome. The researcher therefore concluded that the degree of autonomy that the academic freedom affords professors could impact negatively on SWDs and teaching these students to advocate for themselves would highly

promote their abilities to negotiate for accommodations and improve their chances for success at higher learning.

Baggett (1994) conducted a study on faculty awareness about SWDs. The survey involved a total of 422 professors of a large Northeastern metropolitan university. The university had a high enrolment of SWDs and learning disabilities, motor disabilities, visual and hearing impairments were represented. The researcher found that 77% of the professors had some experience teaching five or less than five SWDs during the previous four years. Faculty reported that they were only able to identify students who disclosed that they were disabled. The study also reported that the professors lacked experience in handling SWDs, were not conversant with the rights of PWDs and the legislative laws and policies related to disability. They were also unaware of educational supports available to SWDs in the university. The professors reported having more experience in instructing students with learning disabilities than those in other disability categories.

Benham (1995) conducted a survey in an effort to understand professors' perceptions and familiarity with disability laws in three large universities in a Southern state. The goal of the research was to inspect the faculty's mindsets on SWDs, their information of the Americans with Disabilities Act (ADA), their familiarity about diverse disabilities and how these three aspects interrelated to faculty level, gender, age of faculty, academic area, years of teaching, prior experience with individuals with disabilities before university teaching, prior experience in accommodating PWDs, and the types of accommodations used. Information exposed momentous autonomous associations among gender of faculty members, and years of teaching experience in higher education and faculty attitudes toward SWDs. Both males and female faculty members with more than 10 but less than 20 years of teaching experience in higher education tended to

have more negative attitudes toward SWDs than males or females or faculty members with less than 10 or more than 20 years of teaching experience. The results showed that in general faculty members appeared to have some preliminary knowledge about various disabilities.

Mayat (2011) conducted a study on the perceptions of academic staff towards accommodating SWDs in a Civil Engineering undergraduate program, University of Cape Town, South Africa. The researcher used semi-structures interviews to investigate the views of five faculty members towards admission of SWDs, and their accommodation once accepted into an undergraduate Civil Engineering program in the university. Mayat reported that the academic staff had inadequate interactions with PWDs prior to the study. They were also uninformed about disability issues. Nevertheless, they were willing to admit and accommodate SWDs in the undergraduate Civil Engineering program. The study concluded that the perceived attitudes of the faculty towards PWDs, and their understanding and familiarity of disability issues may have a negative effect on the provision of accommodations to SWDs in the program.

2.17 Research Studies on the Views of SWDs Regarding Accommodations in Higher Education

Significant changes continue take place in higher education globally. For instance, in the United States higher education implements changes in order to respond to the perceived needs of the society, legislation, policies and societal attitudes. As a result, the student population has changed significantly in institutions of higher learning, where every type of disability is represented. Literature shows that SWDs usually encountered additional difficulties in educational settings. As the number of SWDs who endeavour to complete their university

education continues to rise across the nation, these additional issues pose challenges to this emerging population. These students encounter barriers related to physical access and attitude within the higher learning settings. This section presents a review of the literature about the status of SWDs in higher education. It serves to give insights on how SWDs experience higher education and what good practices Kenyan Public Universities could borrow in developing policies to address disability issues and what needs to be improved in the current practices.

According to Gilson et al. (2007) and Holloway (2001) students with visual disabilities are concerned that they will not get their textbooks in accessible formats in time to keep up with reading assignments. Reed (n.d) carried out a study of students with visual impairments in a postsecondary setting. The study involved 55 administrators, 68 teachers, and 70 students and a total of 193 surveys/interviews were completed. Administrators reported that full participation in postsecondary education was hindered by social, academic and physical barriers. Cited social barriers included lack of awareness about visual impairment amongst nondisabled students and faculty members as well as social isolation resulting from lack of confidence amongst students with visual impairments in initiating contacts in the postsecondary institutions. Academic barriers included lack of materials in alternate format, faculty unwillingness to provide accommodations, challenges in accessing and utilization of assistive technologies and accessing opportunities for field and job placements. Identified physical barriers included mobility issues arising due to complex campus designs and infrastructure such as stairs, signs, ramps, snow removal and the lack of communication with students and faculty about emergency procedures. Administrators believed that creating more awareness and educating the entire campus community about visual impairments could address barriers at their institution.

Administrators indicated that a number of accommodations were available at their institution for students with visual impairments. The most commonly reported were a disability counselor, books in electronic formats, books on tape/CD, accommodations on examination, note sharer services and adaptive computer technologies, that is, Dragon, JAWS and Zoom Text. Others were tape recorders, laptops and exam/study rooms. Administrators reported that students usually experienced challenges in obtaining accommodations since they did not receive accessible materials and accommodations were not provided in a timely manner. They were also not trained in use of assistive technology. Administrators pointed out that accommodation needed to be individualized (Reed, n.d).

2.17.1 Appropriateness of Accommodations for SWDs

Accommodations are an essential component of effective programs for SWDs. Students with disabilities have extra needs occasioned by having a disability, among them, living away from their families and facing the challenges of living with a disability in a learning environment. These students find they have to engage in more complicated day-to-day life activities than their non-disabled peers (Graham, Weingarden, & Murphy, 1991). For instance, students who have mobility impairments encounter architectural-related barriers within the institutional environment. A large number of these students continued to face challenges as they pursued undergraduate and graduate studies (American Council on Education, 1995). Appleby (1994) reported that almost 50% of college SWDs sought services of a counselor and indicated that the transition-related issues and adjustment can be very unique from the challenges reported by students without disabilities, attributable to both infrastructural and attitudinal barriers.

A great percentage of SWDs require only slight alterations in the instructional strategies and assessment to be able to fully participate and succeed in general educational system. Incorporation of a variety of teaching strategies, assistive technology, flexible scheduling adjustment in learning environment, or assistance from an individual to promote, maintain, or improve the performance of a SWD are among useful accommodations (Beech, 2010). Auxiliary aids and services include practices that make information accessible for individuals with sensory disabilities, for instance, providing sign language interpreters for students who are deaf and readers for blind students. Institutions should not charge students for accommodations to which they are legally entitled (Beech, 2010).

No accommodation, aid or service will be useful unless it can successfully afford opportunity for a particular SWD to participate in the education program or activity on equal basis with his/her non-disabled peers. Students may have a similar disability, however, not all benefit equally from similar accommodations or services. The selection of an appropriate accommodation starts once a student has declared his/her disability and has provided documented proof of having a disability. A staff from the disability services engages the student in an interactive process through meetings to explore what accommodations the student may require. The “accommodations interview” is among the procedures for assisting in determination of required accommodations and related services. Assessment of the needs of a student considers the learning environment in which the accommodation will be utilized, the nature of student’s disability, the student’s aspirations and needs, and the institution’s legal entitlements and responsibilities. Based on the results of the functional needs assessment and relevant medical and psychological tests, disability services program will allow the use of specified accommodations

(Imperial Valley College, 2011). This therefore means the student should be well equipped with advocacy skills to be able to negotiate for required accommodations otherwise they may not be granted the needed accommodations.

Usually, there are alternative ways for accommodating student's needs. It is a legal requirement that the accommodations provided to a student should be effective, but institutions are not required to provide the best or most expensive ones. However, consideration should be given to the student's preference where another accommodation provided is an effective alternative. Additionally, the university is not required to provide accommodations that cause undue burden or that would cause fundamental changes to an educational program. A student with disability is required to declare his/her need for accommodations. As such, it is basically a student's responsibility to initiate the accommodation process. Nevertheless, faculty and staff ought to refer a student to disability services program for assistance whenever they are aware of the student's disability and suspect the student may require an accommodation. (Imperial Valley College, 2011).

2.18 Models of Provision of Learning Supports and Accommodations for Students with Disabilities in Public Universities

A model is a graphical representation or simplified version of a concept, phenomenon, relationship, structure, system, or an aspect of the real world. Models of provision are tools for defining support and accommodation for SWDs and, ultimately providing a basis upon which strategies can be devised for meeting the needs of SWDs. Models are influenced by two basic philosophies. The first views PWDs as societal liabilities. This can result in paternalism,

alienation and discrimination. The second perceives PWDs as customers of what the society offers. The possible outcome therefore is an opportunity to make choices, increased autonomy and self-determination, equality of human rights, and inclusion (Disability Rights Coalition n.d).

The most common model of provision of accommodations for SWDs in universities in the developed countries such as USA, UK and Canada is the Individual Accommodation Model (IAM). Accommodations and other learning supports are provided to students on individualized basis. The Individual Accommodations Model is based on medical model of disability. Literature indicates that accommodations model is discriminatory to mature students with learning disabilities who are used to autonomously selecting what they need for themselves based on work and life experiences. Three overarching criticisms in regard to the accommodations model have been highlighted and these are: student disempowerment; substantial failures in help or assistance to SWDs; and a lack of alternate formats for presenting courses, as well as for teaching SWDs and for techniques and practices used to assess learning outcomes regarding them. The conclusion is that the educational system as a whole would benefit from a gradual shift away from an accommodations-based approach towards the more flexible, adaptable principles of Universal Design for Learning. This process would allow professionals as well as instructors and students to move towards a more socially just, equitable, and flexible approach, in a synchronous fashion, as a community of learners. It is from this background that the researcher in this study has endeavored to design a model based on Universal Design for Learning (Burgstahler, 2007).

2.19 Summary of Literature Review

In the review of literature, textbooks, journals, magazines, news papers and e-learning materials are reviewed in relation to policy and provision of learning supports and accommodations for SWDs. The literature review led to the establishment of knowledge gaps. The reviewed literature established that there were very few studies on policy and provision of learning supports and accommodations for SWDs and their academic participation in higher education institutions especially in developing countries. Those that exist are from developed countries where students with physical disabilities have been given a lot of coverage and inclusive learning environment, and academic participation is on the forefront. The literature review on learning environment for students with motor/orthopedic impairments in higher education reveals that higher learning institutions in developed countries promote inclusive learning environment by putting up better infrastructure and appropriate adjustments with enhanced technology. Some of the gaps in knowledge that the present study filled are: First, many studies reviewed applied either qualitative or quantitative methods of data collection. This study applied mixed method of data collection to elicit rich and in-depth information, which gave more insight and understanding on the problem investigated. Second, many studies investigated disability involved students mainly in the categories of visual, motor, learning disabilities. Studies involving hearing impaired students are scarce. This study included students with hearing impairments. Lastly, some of the studies reviewed were carried out either in secondary schools or middle level colleges which examined assistive technology in the teaching and learning process in secondary schools and middle level colleges but this study was carried out in Universities since the needs of learners were different.

The reviewed literature has also revealed that almost all universities in developed countries such as US, UK, and Canada and Australia provide learning supports and accommodations to SWDs. This is as per legislative requirements of respective countries. To ensure compliance with these laws, Universities have formulated written disability policies procedures and guidelines for accommodation. These are circulated to entire institution. The universities also have disability services units whose responsibility is to ensure SWDs requirements for accommodations are addressed. A Disability services coordinator heads the disability unit.. The units have a multidisciplinary team that evaluates the needs of SWDs. The universities also have a Director of Disability Services whose responsibility is to ensure that the university complies with the legislative requirements. These individuals are qualified in disability and legal issues. Each of the countries also provides a good structure for SWDs to obtain extra funding in form of disability allowance or scholarships to enable them meet the extra needs occasioned by having a disability.

In the Kenyan context, literature indicated existence of disability legislation, that is, the Kenya Constitution (2010) and the PDA. However, the PDA has weaknesses that make it difficult to implement since it does not spell out clearly who is responsible for providing accommodations to SWDs, neither does it have enhancement for penalty in case of violation. The literature indicated a lack of functional written policies on disability and procedures and guidelines for provision of learning supports for SWDs in Kenyan Public Universities. Generally there is a total lack of structure in addressing disability issues in these institutions. The current study therefore aimed to fill this gap by designing a model of provision of learning supports and accommodations to SWDs in Kenyan Public Universities.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The current chapter discusses the methodology that was employed in the study. The key aspects discussed are research design, determination and identification of the sample population size, sampling procedure and sample size, the instruments for data collection, validity and reliability of the research instruments, pilot study, data collection instruments, data collection procedure, data analysis and the study variables and ethical considerations.

3.2 Research Design

Research design is the plot, organization and plan of study envisioned so as to obtain responses to study questions and to manage variation (Kerlinger, 1986). This explanation incorporates three central stipulations - plot, organization and plan. The plot is the sketch of the study format on which the investigator is to work. The organization of the study work is additionally definite format and the plan proposes how the study will be conducted i.e. methods to be used for the data collection and analysis. Research design is the outline of a study. It is the arrangement of techniques and measures for obtaining the data attractive for solving the problem. The research design enables the researcher to arrive at certain meaningful conclusions at the end of proposed study. This study adopted exploratory descriptive survey design. The purpose of exploratory studies is to explore some area more thoroughly in order to develop some specific hypothesis or prediction that can be tested in future research (Orodho, 2003). Descriptive studies are concerned with finding out “what is” (Borg & Gall, 1989). According to Mugenda and Mugenda (1999), descriptive study is probably the best method for social scientists and educators who are

interested in collecting original data for the purpose of describing a population. Survey approach was employed since it enabled investigation to be made for tentative causal factors by collection and use of both quantitative and qualitative data. Survey approach is often used to assess thoughts, opinions, and feelings (Mwanje, 2001). This study adopted exploratory descriptive survey design because with exploratory study this research was conducted into an issue (policy, provisions and accommodations for SWDs) and there were few and no comprehensive earlier studies conducted in Kenya to refer to thus adopting exploratory study in order to focus on gaining insights and familiarity for later investigation. Secondly, this study adopted descriptive research in order to describe (policy, provisions and accommodations for SWDs) phenomena as they exist in Public Universities in Kenya. Finally, survey research was applied in order to explain what is happening in (policy, provisions and accommodations for SWDs) situation in Public Universities in Kenya by assessing thoughts, opinions, and feelings. This study also adopted both qualitative and quantitative research paradigms. Quantitative relied exclusively on numerical or quantifiable data and qualitative relied on themes and words (Coffey, Holbrook & Atkinson, 1996).

3.2.1 Variables

The independent variables are policy, learning supports and accommodations. These were observed and described by views of faculty members and students. To measure these variables different types of support and accommodations provided to SWDs were assessed. In the category of Instructional Resources Support, there are Lecture Halls, Teaching learning Resources and Teaching Aids. On matters of Welfare and Housing Facilities Support, there were Housing and

Accommodation and Special Services e.g. Transport Services and on Recreation and Social Support, there are Sporting and Games, Recreational activities and Cultural activities.

The dependent variable was the types of supports and accommodations provided for SWDs as described qualitatively.

3.3 Locale of the Study

The study was carried out in Nairobi and Kiambu counties in Kenya. Nairobi County was chosen because this is where the oldest university, University of Nairobi (UoN), is located while Kiambu County was selected because Kenyatta University (KU), which was the first to launch a bachelor's course in Special Education and currently admits the largest number of SWDs is located here. In the same county is located the first University for Agriculture and Technology, Jomo Kenyatta University of Agriculture and Technology (JKUAT).

3.4 Target Population

The population for this study included Public Universities which are in the official list of the Commission for University Education (CUE) and which have been accredited to undertake university education in Kenya. According to this list there were seven (7) of these institutions in Kenya (CUE, 2015).

3.5 Sampling Techniques and Sample Size

This section details the sample and sampling procedures that were employed in this study.

3.5.1 Sampling Techniques

Three Public Universities were selected to constitute the sample population. The researcher applied judgmental sampling technique which is a non-probability sampling technique where the

researcher selects units to be sampled based on their knowledge and professional judgment (Black, 2010).

University of Nairobi (UoN) was chosen because it is the oldest university in Kenya; KU was chosen since it was the first university to launch a bachelor's course in Special Education in Kenya and currently admits the largest number of SWDs; JKUAT was chosen since it was the first University for Agriculture and Technology to be established in Kenya.

In the three Kenyan Public Universities, whole population sampling was employed for students who participated in the study. Any student who appeared in the university records as having a disability was included. All those students identified themselves as having a disability though not in the university records were also included in the study. The faculty, staff and service providers who participated in this study were selected purposively. Since the number of SWDs at higher education is small, whole population sampling was employed hence all SWDs in the three institutions were involved in the study. The administrators, faculty and service providers were sampled purposefully. Only those faculty members who had taught SWDs for at least one semester were selected for the study.

3.5.2 Sample Size

The participants in this study were administrators, lecturers, students and service providers. Those who participated in this study are presented in Table 3.1 below.

Table 3.1 Composition of the Study Sample

University	Students	Administrators	Faculty	Service Providers
KU	53	4	50	1
UoN	11	4	20	1
JKUAT	3	4	15	1
TOTAL	67	12	85	4

3.6 Research Instruments

The researcher used questionnaires, interview schedules, focus group discussion guides, checklists and document analysis to collect data. These are detailed below.

3.6.1 Students' Questionnaire

The student survey instrument had three main sections. The first section was on general information about the university and its policy practice regarding SWDs. It requested descriptive background information about the age, gender, students' college, field of study and the year of study. The second section consisted of questions about SWDs in a university environment. It requested the social activities that the students engaged in while at the university. The third section requested students for information of accommodations. It was divided into two parts. Part one requested for students' to rate accommodation issues while part two requested students for information on the accommodation (s) that they were using or previously used. The student survey consisted of 78 items. Seventy-eight items of the survey were adapted from the study conducted by Lancaster, Mellard and Hoffman (2001) on the experiences of SWDs in selected community and technical colleges. The investigator made use of a questionnaire to gather information and since a questionnaire is anonymous it provides the respondents the autonomy to present answers devoid of discrimination. As a method for acquiring data and judgment,

questionnaires have several advantages. Cohen and Manion (1989) emphasize that a questionnaire necessitates lower ability to manage and can handle a big sample of the respondents and a range of issues and questions of anxiety in a comparatively competent way with the likelihood of elevated reply levels.

3.6.2 Administrator Questionnaire

The administrator questionnaire asked the respondents to provide information on background data, and had items on accessibility issues, staff development, priorities, evaluation, budget, documents to review and success of recruitment, retention and completion of students.

3.6.3 Support Services Questionnaire

The questionnaire for the services providers was adapted from previous researches conducted on SWDs in higher education. These are Tinklin, et al., (2004), UNESCO (1997), UNESCO (1999) and Lancaster (2001). Three of these studies were survey studies conducted on SWDs in postsecondary institutions in England, Africa, and fifty countries in the world respectively, while Lancaster study was conducted in three states in the United States of America (USA) with 61 SWDs participating in the study. In the UNESCO (1997) and UNESCO (1999) studies, University of Nairobi and Moi University were among the study sample. For the current study, the researcher selected easily worded and clear questions for each section of the questionnaire from the questionnaires in the three studies. This instrument consisted of five sections (see Appendix D).

3.6.4 E-Learning Questionnaire for Faculty

This survey instrument was adapted from Gladhart (2010) study to find out whether there was need to train teachers in online instruction in order to promote accessibility for SWDs in such courses. The questionnaire consisted of five items (see Appendix I). The aim of the survey was to find out whether faculty in Public Universities were accommodating SWDs in distance learning and whether they had requisite knowledge and skills in this mode of instruction.

3.6.5 Interview Schedules

Interviews have been described as one of the most effective ways to understand another's viewpoint (Fontana & Frey 2000), and were one form of data collection. The purpose of undertaking face-to-face interviews was that it gave an opportunity to gain a richer insight into the experiences of the students across the areas of discussion and analyze their experiences in more detail. All the eight deaf students were interviewed. Faculty and senior administrators were also interviewed. Semi-structured interview guides were developed to solicit information to address the research questions. Questions for the interview were drawn from the predetermined themes. Three different interview guides were developed for students, faculty and administrators (see Appendices G & H).

The face-to-face interview with the hearing impaired students were videotaped. The face-to-face interview guidelines consisted of semi-structured interview questions. The mode of communication during the interview with the hearing impaired students was determined by the participants' preference. Six of the seven deaf students were post-lingual therefore they preferred to communicate through both speech and Kenyan Sign Language. Only one of them was not a

signer and therefore chose to use both speech and pen-and-paper. Generally, total communication was employed throughout the interview with all the eight participants. Each of the interview sessions lasted two hour with each of the participants. Each of the sessions was videotaped and each of them was transcribed. The researcher also conducted one interview with each of the faculty members and administrative staff, lasting two hours. The interviews were audio taped and later transcribed.

3.6.6 Focus Group Discussions

This is a discussion group that consists of 6-12 persons led through by a skilled moderator, during which members talk freely and spontaneously about a certain topic. Focus group discussions were held with groups of students with similar disabilities forming a single group. Purposive sampling was used to obtain the participants. Focus groups are relatively less costly and easy to assemble. They are useful in obtaining detailed information in participants' own words and developing deep insights. Moreover, participants are able to build on one another's responses and come up with ideas they might not have been able to generate in individual interviews. Focus group discussions also provide an opportunity to involve participants in data analysis. Most importantly, in focus groups participants act as checks and balances on one another, identifying factual errors or extreme views. Additionally, "FGDs can be used to explore the meanings of survey findings that cannot be explained statistically and the range of opinions or views on a topic of interest (ODI" p. 1). The focus group discussion guides were similar to those in the student survey and interview guides and consisted of discussion questions mainly on "remembering stories of when..." Respondents were requested to tell their personal experiences

about very specific, factual incidents, which had special significance to them. The experiences were in the areas of academic activities, student life activities and accommodation procedures.

3.6.7 Desk Research

This involved the collection and review of relevant documentation on the study. The researcher did a thorough examination of the universities' policy documents, strategic plans, web documents and university newsletters and calendars.

3.6.8 Observation

An observation checklist was used to collect data on the availability of course texts in alternative formats in the university bookshops.

3.7 Pilot Study

The researcher carried out a pilot study in order to validate the questionnaires, interview schedules and FGD guides in two institutions of higher learning in the country, which are in the CUE list of Public Universities. The institutions were within the population of the study. Robson (2002) stated that a pilot study is a mini-version of the study and should be conducted before the researcher engages in the main study. Pilot testing helps to establish content validity of the instrument and improves questions, format and the scale (Creswell, 2003).

3.7.1 Validity

Validity is the extent to which the instrument measures what it purports to measure. Instrument validity is the degree to which an instrument is capable of gathering the anticipated information.

To determine the validity of the items in the questionnaires and interview schedule, a pilot study was conducted in two institutions of higher learning in the country with similar characteristics to the subjects of this research. The subjects included in the pilot study had similar characteristics in all respects to the target population as recommended by (Mulusa, 1990). Each item of the completed questionnaire and interview schedule was discussed with those involved in the pilot study respectively in order to find out what items were difficult and/or ambiguous and also to establish the confusing items. The researcher applied content validity to improve the validity of the questionnaires, interview schedule and observation schedule where experts' opinion was sought. This approach assumed that the instruments had a good detailed description of the content domain. Through the comments of the experienced researchers some items were modified and others disregarded.

3.7.2 Reliability

Reliability is the degree to which the instrument consistently measures what it purports to measure. Reliability of the research instruments was established and suggestions developed on how to improve them. A test must be valid in order for it to be reliable. The split-half method was used to establish the coefficient of internal consistency of the questionnaire. According to Roscoe (1969), this method involves splitting the statements (items) of a test into two halves (odd and even numbered items). Then, the odd numbered and even numbered items are placed in two subtests and the scores of the two subtests are computed for each individual and correlated using the Pearson's Product Moment Correlation Coefficient formulae. The obtained value (r) however represents reliability of only half of the test. To obtain reliability of the whole test, the Spearman Brown Prophecy formulae stated below is applied:

$R_x = 2r / 1+r$ where:

r is the reliability coefficient resulting from correlating scores of the odd and even numbered items for part of the test; and

R_x is the reliability of the original (whole) test.

Computations of specific coefficients of reliability of the three sets of questionnaires subjected to piloting are shown in the section below.

Students' Questionnaire

The reliability of the total test using Spearman-Brown Prophecy formulae was given as:

Total test = $(2r \text{ (half test)}) / 1+r \text{ (half test)}$. r is the reliability coefficient resulting from correlating scores of the odd and even numbered items for part of the test; and R_x is the reliability of the original (whole) test.

$$\begin{aligned} R_x &= 2r / 1+r \\ &66 \\ R_x &= 2 \times 0.792 / 1 + 0.792 \\ &= 1.584 / 1.792 \\ &= 0.883 \end{aligned}$$

Questionnaire for Institutional Administrators

R_x is the reliability of the original (whole) test.

$$\begin{aligned} R_x &= 2r / 1+r \\ R_x &= 2 \times 0.812 / 1 + 0.812 \\ &= 1.623 / 1.813 \\ &= 0.896 \end{aligned}$$

Administrator Survey

R_x is the reliability of the original (whole) test.

$$\begin{aligned} R_x &= 2r / 1+r \\ R_x &= 2 \times 0.812 / 1 + 0.822 \\ &= 1.626 / 1.823 \\ &= 0.886 \end{aligned}$$

Questionnaire for Service Providers

R_x is the reliability of the original (whole) test.

$$R_x = 2r / 1+r$$

$$R_x = 2 \times 0.758 / 1 + 0.758$$

$$= 1.514 / 1.758$$

$$= 0.862$$

E-Learning Questionnaire for Faculty

R_x is the reliability of the original (whole) test.

$$R_x = 2r / 1+r$$

$$R_x = 2 \times 0.697 / 1 + 0.655$$

$$= 1.394 / 1.655$$

$$= 0.842$$

Since reliability is usually interpreted like a regular correlation, the implication is that the closer the value obtained is to 1.00, the stronger the congruence of measurement. The questionnaire (R_x=0.883) for students, the questionnaire (R_x=0.896) for administrators, the questionnaire (R_x=0.862) for service providers and the questionnaire (R_x=0.842) for the faculty were consequently deemed reliable research tools because R_x value in the four sets of questionnaires was greater than 0.65 (William, 1990). A test-retest technique was applied to establish reliability of the interview guide. Test retest incorporated administration of the tool first to a sample with related traits to the study participants or research environment. Afterwards the tool was enhanced depending on the degree to which the items are appropriate to collect the anticipated data when they are administered in the main study. This technique ensures that the tool collected comparatively similar data to that collected in the initial investigation when administered in the main research. The reason is that unclear, intricate and vague items may possibly either be simplified or deleted in totality, or fresh questions included in the tools depending on the results of the initial investigation. Total number of items in the two tests was then scored independently

and the scores summed up so that there was a total score for the initial test and a total score for the second test. Pearson's Product Moment Correlation Coefficient formula ($r = \frac{\sum z_x z_y}{N}$) was then used where z_x is the variable x converted into z scores and z_y is the variable y converted into z scores which were used. The calculated correlation coefficient obtained was 0.863. The interview guide ($r=0.862$) was consequently deemed a dependable tool. The observation schedule, which the researcher developed, was a checklist to verify data provided by respondents by scrutinizing the existing situation. In disparity to additional data collection methods, views are created from observations rather than testing existing ones. Additionally, observing allows an investigator to provide an evidence of definite as opposed to reported or recalled data. Inter-rater/observer method was applied to establish reliability of the observation schedule. This method is used to evaluate the level to which diverse raters or observers give unswerving approximations of similar occurrences or to establish the degree to which at least two raters are consistent in the way they rate or report their observations (Gay, Mills & Airasian, 2009).

3.8 Data Collection Procedure

The researcher adopted a drop-and-pick approach of administration of the research instruments to the sampled respondents. Drop and pick method of administration of the research instruments was preferred since it was deemed more appropriate to ensure high rate of return of the instruments (Robinson, 2010). Upon obtaining authority from the university through the Graduate School the researcher sought consent from the Vice-Chancellors of the respective universities and proceeded with data collection in four phases.

Phase one

The researcher obtained the research permit from The National Commission for Science Technology and Innovation (NACOSTI). The researcher then developed the work plan and prepared enough copies of instruments (questionnaires) ready for distribution.

Phase two

This phase involved the researcher visiting the participating universities and departments for introduction and familiarization, to seek respondents' permission and cooperation and make appropriate appointments. The researcher also assured the respondents of the confidentiality with which the information to be provided would be treated. In this phase the researcher also trained three research assistants.

Phase three

This phase involved administration of questionnaires to the sampled respondents of various departments and sections. The researcher and research assistants visited the various departments and section sand administered the questionnaires to the respondents explaining the rationale of the study and guaranteeing the respondents of the confidentiality of the information they will give. In order to increase the return rate the researcher waited and collected the filled questionnaires from the respondents.

Phase four

This phase included conducting interviews with the students and administrators. The researcher visited these categories of respondents at the agreed times and conducted the interviews in the departmental boardroom and respective offices respectively. Later the researcher conducted focus group discussions with students in boardrooms in the participating universities. The researcher then visited bookstores in each of the universities to do a spot check of the materials

in other formats that these stores stocked. During this phase an observation checklist was used to collect data on the availability of course texts in alternative formats in the university bookshops.

3.9 Data Analysis and Presentation

The researcher analyzed independently the quantitative data quantitatively using SPSS and the qualitative data qualitatively using the deductive approach. The qualitative data was used to help understand and clarify quantitative data.

3.9.1 Qualitative Data

The researcher converted the field notes generated through focus group discussions, interviews and observations into Word documents for qualitative data analysis using open coding (Glasser & Strauss, 1967). Then Deductive approach was used to analyze data. This approach to qualitative data analysis allows the researcher to set the categories and themes from the beginning of the study (Bogdan & Biklen, 2006; Crabtree & Miller 1999). Preliminary codes can help researchers integrate concepts already well known in the extant literature (Miles & Huberman, 1994). The researcher had set themes and categories at the beginning of the study with the aim to integrating concepts already well known in existing literature. For this study, themes were developed a priori, based on the research questions and the theory of universal design and social model of disability. These themes were: Physical environment accessibility, information environment accessibility, programmatic/policy environment accessibility, attitudinal environment accessibility and student life. The researcher therefore identified specific pieces of data, which corresponded with these categories, connected the categories to themes then fitted the data into their respective themes. In this approach, the researcher should be very careful not to force data

into the categories. However such a “start list” (Miles & Huberman, 1994) allows new investigations to benefit from and build on previous insights in the field. Furthermore, this approach also allows for categories and themes that may emerge during data analysis, which the researcher had not stated at the beginning of the study. Thus the researcher took note of any other emerging themes and interpreted them too.

The analysis started by the researcher familiarizing with the data, that is, to know their range and diversity, and to gain an overview of the materials gathered. The researcher listened to the audio recordings, read transcripts, and studied observational notes. The researcher had already set predetermined themes for the study; therefore, the next step involved sifting and sorting data according to those themes. The researcher therefore searched the data for material that could be coded under these headings. The researcher then systematically applied the predetermined themes on transcripts of data from individual interviews and focus group discussions. All the data were read and annotated according to the predetermined themes. Once the categories or themes have been pre-determined, specific pieces of data are identified which correspond to the different themes or categories. Next, the researcher devised charts with headings drawn from the thematic framework and the research questions. Charts were drawn for each of the thematic areas and entries were made for each for several respondents on each chart. These areas were recruitment, registration, accommodation procedures, financial aid, and student life. Newly emergent themes were also recorded in the charts. After sifting and charting all the data, the researcher then accorded them to major predetermined themes. Next the researcher pulled the key characteristics of the data and mapped them and then interpreted the data set as a whole.

Taylor and Bogdan (1988) asserted that data analysis is an ongoing process that involves coding the data, connecting the related themes, understanding the data in context, and reporting the findings. The researcher coded the text data, developing categories from the data, and merged common categories and matched them to predetermined themes. She then studied the data to obtain its meaning in context and reported the findings.

3.9.2 Quantitative Data

Data from questionnaires were first coded and related information grouped together according to predetermined themes. The data were then entered into the computer and analyzed using Statistical Package for Social Sciences (SPSS) to describe the range and nature of educational supports provided for SWDs and to describe students' satisfaction on accommodation issues.

Hinkle, Wiersma and Jurs (2003), have stated that one of the customary and least complex methods of arranging and outlining information for significant representation is in a straightforward or ungrouped recurrence table. Weiss (2004) notes that by suitably organizing data, we can often make a large and complicated batch of data more compact, easier to work with and understand. The researcher used frequency tables, bar charts and pie charts to represent the responses from the questionnaires. The qualitative and quantitative data were used to complement each other in answering research questions.

3.10 Logistical and Ethical Considerations

A research permit to conduct the study was sought from the National Commission for Science Technology and Innovation (NACOSTI). The participating Universities were assured that their

names would not appear in the discussion in any part of the research report. The consent of the respondents was also sought before: giving them the questionnaires to fill, involving them in FGDs and before interviewing them. The participants were given assurance that the information they provided would be treated confidentially and would be used only for the purpose of the study and to improve policy and provision of learning supports and accommodations from SWDs.

Cover letters were attached to the questionnaires distributed to participants explaining the purpose for the proposed study and reassuring the respondents of confidentiality. Consent forms were provided for the respondents to sign as an indication of their consent to participate in the study (see Appendix J). The respondents were also given directions on how the questionnaires would be filled and returned. The rationale behind this was to help reduce the likelihood of obtaining biased responses.

CHAPTER FOUR

PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents the findings, interpretations and discussion of data on the current study on policy and provision of learning supports and accommodations for SWDs in Kenyan Public Universities. “Services, accommodations and policies that support PWDs in postsecondary institutions are critical factors in ensuring access” (The National Educational Association of Disabled Student, NEADS, 2015, ¶2). Therefore, the main objectives of this study were to examine: what policies pertaining to SWDs existed in Kenyan Public Universities; the range and types of support and accommodations provided to SWDs at Kenyan Public Universities; the views of faculty members regarding challenges that they faced in supporting SWDs; the views of SWDs regarding adequacy and appropriateness of accommodations offered at Kenyan Public Universities; and to design a model of provision of learning supports and accommodations for SWDs in Kenyan Public Universities. In this section the results of survey, focus groups, interviews and document analysis have been combined in such a way that they supplement each other in the effort made to examine the current state of policy and provisions for SWDs in Kenyan Public Universities. The results of the quantitative analysis and the qualitative data have been combined to improve the evaluation by ensuring that the limitations of one type of data are balanced by the strengths of another. This will ensure that understanding is improved by integrating different ways of knowing (Azorín & Cameron, 2010).

In this study, pseudonyms were used for the studied institutions and the participants to maintain confidentiality. The pseudonyms for the Universities are letters A, B and C. For the student

respondents, codes have been used such as Ph1, V1, d1, Sd, whereby the first letters denote the disability that the respondent has, that is P for physical impairment, V for visual impairment, d for deafness and Sd for speech disorders. However albinism was coded as Alb. Wherever any of the letters A, B or C appears before the student's code, it denotes the university where the student was enrolled during the data collection period.

4.2 Research Questions

The following research questions guided the current study:

1. Have Kenyan Public Universities developed and implemented written policies on SWDs?
2. What is the range and the types of learning supports and accommodations provided to SWDs in Kenyan Public Universities?
3. What are the views of faculty members regarding challenges that they face in providing academic supports to SWDs?
4. What are the views of SWDs regarding adequacy and appropriateness of accommodations offered at Kenyan Public Universities?
5. Which model can be designed to guide provision of learning supports for SWDs in Kenyan Public Universities?

Qualitative data from focus group discussions, semi-structured interviews and document analysis were used to explain the results from quantitative data, in order to have a deeper understanding of the quantitative results from student and faculty surveys. Quantitative and qualitative data were collected concurrently with the aim to triangulating data from the multiple sources in answering each of the research questions. Triangulation of data enhances the validity of a study

(Guion, Diehl & McDonald, 2011). Data to answer the research questions were obtained and triangulated as shown in the table below.

Table: 4.1 Triangulation of Data in Answering Research Questions 1-4

Research Question	Triangulated Data
1. Have Public Universities developed and implemented written policies on SWDs?	Document analysis, administrator data, Office of Disability Services data
2. What is the range and the types of learning supports and accommodations provided to SWDs at Kenyan Public Universities?	Student survey, Office of Disability Services data, document analysis.
3. What are the views of faculty members regarding challenges faced in providing academic supports to SWDs	Faculty survey, faculty semi-structured interviews, faculty e-learning survey
4. What are the views of SWDs regarding learning supports and accommodations by Kenyan Public Universities?	Student survey, semi-structured interviews and FGDs
5. Which model can be designed to guide in provision of supports SWDs in Kenyan Public Universities?	Researcher's own design of applicable model based on data from questions 1-4 and reviewed literature on Universal Design for Learning

4.3 Response Rate of the Participants

This section presents information on response rate of the participants

Table 4.2: Distribution of Students by Year of Study

The response rate from the students is as presented in Table 4.2. The data is categorized by the students' year of study.

Year of study	Frequency	Percentage (%)
First year	18	28.57
Second	17	26.98
Third	13	20.63
Fourth	15	23.81
Totals	63	100.00

Table 4.2 shows that out of a total of 67 (100%) students who participated in this study, only 63 of them (94%) indicated their year of study on the questionnaire. All levels of study were represented, in almost equal proportions. Thus, it was possible to get the views and perspectives of students at various levels regarding their experiences at higher education.

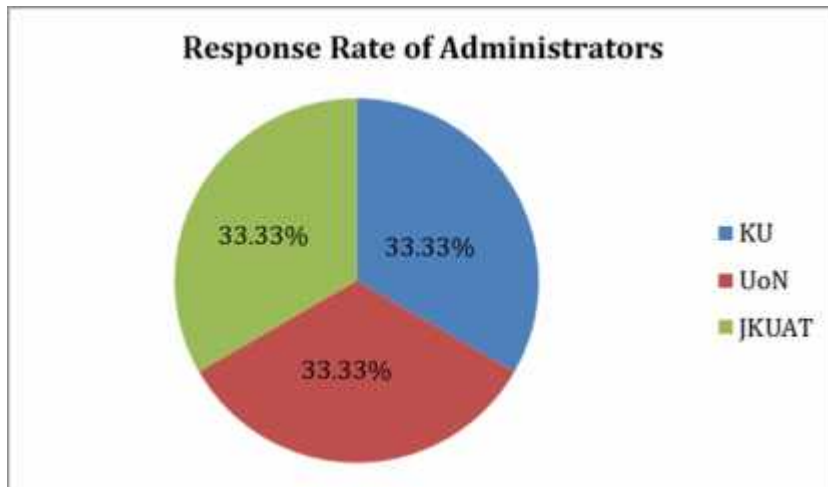


Figure 4.1: Distribution of administrators per university

The response rate from the administrators per university is as presented in Figure 4.1. The category of the administrators investigated is registrars academic in all the three universities.

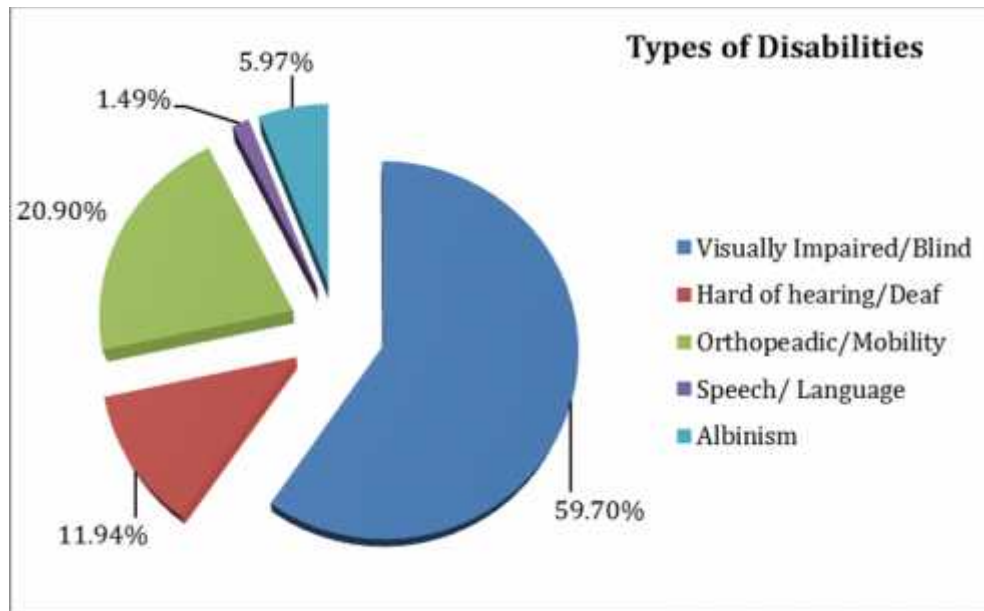


Figure 4.2: Reported Disabilities

Various disabilities were represented in the current study; as Figure 4.2 show, the majority of the respondents were visually impaired/blind, (59.7%), followed by those with orthopedic/mobility impairments (20.9%) the others being those with speech and language impairments and albinism. As will be discussed later with reference to participants' responses, visual impairment seems over-represented probably basically because it is a visible disability hence the government seems to have given individuals in this category priority over those with other disabilities in accessing education. Similarly orthopedic/mobility disability has high numbers. However, it is important to note that learning disabilities and other health and psychological conditions were not represented. This is because no students identified themselves with these disabilities during participant recruitment.

4.4 Policies Pertaining to SWDs that Exist in Kenyan Public Universities

This question is answered by triangulating Office of Disability Services data, administrator data, and document analysis. These data are presented in tables 4.4, 4.5, and 4.6 respectively.

4.4.1 Definitions of Disability as Provided by the Respondents

Table 4.3 Definitions of disability

Table 4.3 presents definitions of disability as given by the respondents from the Universities

University	Definition of disability
A	Any bodily/bodily related “abnormality”. Any impediment that interferes with an individual’s way of life on a permanent or temporary basis. A disadvantage or a handicap. It is also a physical or mental condition that limits a person’s abilities and activities.
B	In line with the disability Act (2009) and UN Convention on PWDs the objective of University B disability policy is to promote the full inclusion of students and staff with disabilities into the full life of the institution.
C	Physical, psychological and other impediments that hinder students /staff from carrying out their objectives under normal conditions hence the need for some assistance to do the same. Physical, sensory, mental or other impairment including any visual, hearing, or physical incapacity, which impacts adversely on social, economic, or environmental participation.

Figure 4.3 indicates the definitions reported by the persons in charge of disability services in respective universities. University A adopts a definition that is based on both the medical and social model of disability. However the University seems to emphasize impairment rather than focusing more on the barriers that exist in the environment that make it difficult for SWDs to function normally in the academic institution. University B did not provide any definition of disability; instead it provided the objective of the institution’s disability policy. University C

defines disability as a problem that exists within an individual and which necessitates assistance to enable the individual function under normal conditions. Clearly Universities A and C generally view disability as more of a medical condition that exists within an individual. In this case the individual and not the environment is the problem. This is contrary to the CRPD which adopts the social model in its definition of disability. It clearly underlines that disability is a social-cultural construction as seen in the way the society erects barriers in the environment. As such, there is need to remove these barriers to enable PWDs go about their daily activities without struggles and participate on equal basis with the non-disabled in the society, in this case, in the Public Universities. Public Universities therefore need to review the way they define disability guided by the CRPD as this will ensure their policies, programs and procedures do not discriminate against SWDs. The fact that University B did not have a definition for disability raises questions as to whether disability is well understood in this institution. Appropriate policies and provisions of supports for SWDs depend largely on the way disability is viewed. There is therefore an urgent need for University B to clearly define disability so as to give direction when dealing with disability-related issues.

4.4.2 Enrolment of SWDs in Kenya Higher Education

One of the major findings of this study is that there is a lack of reliable data on the enrolment of SWDs in the Public Universities. Data from the Support Services questionnaire indicates that in the academic year 2011/2012 in University A there were about 120 SWDs, estimating to 0.002%). Estimates indicated that of these, 8 (0.01%) were deaf, 70 (0.11) were blind, 20 (0.03) had other visual impairments, and 20 (0.03%) had mobility impairments. However, these estimates did not include students with albinism, although 3 participated in the current study. Moreover, responses in the students' survey indicated that some students have multiple

disabilities yet this was not indicated as one of the categories in University A. Also not included among the categories reported was epilepsy, yet one of the participants in this study reported that she had epilepsy. However, in university A's website, it is indicated that SWDs are over 150. This is quite contradictory and indicates how poorly records on disability were maintained. Moreover, a senior administrator in the DODS indicated that the statistics were from a list of registered SWDs that was maintained by the disabled students' association. It therefore begs questions as to whether the students' association had the capacity to capture and maintain up to date students' data. As such, the researcher argues that it would be extremely difficult for these institutions to plan for the needs of this group of learners.

University B reported a total of 21 SWDs enrolled, however, the senior administrative staff, who filled the support services questionnaire indicated that she was not aware of what proportion of the total student population this represented. The disability categories reported were: deaf 3, blindness 9, and mobility impairment 9. In university C, data from support services questionnaire indicated that the total number of SWDs was less than 10, (about 0.15%). The categories represented were: Other visual impairments-1, mobility impairments- 2. The proportion of students in each of these categories in relation to the whole student population was not provided. It appears that these figures were not accurate since a student with speech impairments participated in the current study, yet this is was not reflected in the stated figures. This is a reflection of the national situation as indicated earlier in the literature review. This, in the researcher's opinion, is a worrying situation since it begs understanding as to how the nation and the Public Universities would ever hope to effectively plan for the needs of students with special needs whose number they are not aware of. Universities should therefore, as a matter of urgency,

conduct a census to establish the number of SWDs enrolled in these institutions so as to facilitate planning to cater for the learning needs of this category of students. Higher education institutions also need to undertake surveys of their student profiles to identify those who consider themselves to be disabled. This will facilitate delivery of supports to these learners. This finding therefore confirms the status of data on SWDs in Kenya. The relevant ministries decried this situation: “The absence of reliable data on children with special needs across all levels of education and inadequate funding constrains effective special education service delivery and planning” (MOE & MOHEST, 2012 P. 19). Unfortunately, little seems to have been done to address this situation yet since a further review of literature on the Ministry of Education did not find any updated records on the enrollment of SWDs at higher education in Kenya. The extremely low representation for SWDs in the Kenyan higher education is partly due to ineffective recruitment procedures by the Joint Admission Board (JAB). Many students who are qualified to join university under the affirmative action policy still remain in the homes having lost hope of ever pursuing higher education and improve their chances of obtaining gainful employment. Moreover, even some among the few who have struggled through the barriers right from pre-school to high school and were admitted to the Public Universities were forced to drop out of the universities due to lack of appropriate supports and services. Even most unfortunately, some of the deaf /hard-of hearing students who join the university self-sponsored programs are also forced to drop out as they do not receive any interpreters nor do they receive course content in accessible formats. Consequently, it becomes impossible for them to follow lectures which are mainly oral based. These students do not receive any learning supports or accommodations that would enable them access instruction at this level. Indeed, retention is of great concern for

SWDs especially for the hearing impaired students who constitute a group that is at high risk of dropping out, or as Mugo citing Groce (2004) puts it, “falling through the cracks” (2010, p. 10).

Another reason is for low enrolments at higher learning for SWDs is poor transition rates from high school to higher learning. Very few students meet minimum entry requirements for higher education. This is mainly because at the lower levels of education SWDs similarly do not receive the necessary supports to enable them undertake the regular curriculum and compete favorably with their non-disabled counterparts. Clearly, this category of learners is disadvantaged across all levels of Kenyan education system.

Table 4.4 Document Analysis - Policy Statement on Disability

University	Has a Policy Statement on Disability	Status of Policy
A	No	Draft
B	Yes	Launched but not available to the public
C	Yes	Launched but not available to the public

Table 4.4 indicates policy statements on disability by Kenyan Public Universities as reported by respective offices of disability services of the studied universities. Only Universities B and C had disability mainstreaming policies by the time of data collection. However, these policy documents had not been released to the public.

4.4.3: Status of policy for students with disabilities in Kenyan Public Universities

Table 4.5 Status of Policy on Disability in Kenyan Public Universities

Parameter	Available	Not Available
Has comprehensive disability policy statement	No	Yes
Has admission policy and procedures that specifically address the needs of students with disabilities	No	Yes
Do monitoring of statistics about application/ enrolment rates of students with disabilities	No	Yes
Has arrangement for the assessment of individual student needs	No	Yes
Has provision of services to meet assessed needs	No	Yes
Has arrangements to monitor the provision of support services that have been agreed following professional assessment	No	Yes
Has access to networks of trained support workers	No	Yes
Has institutions-wide policy and procedure covering examination and assessment, which address the needs of SWDs.	No	Yes
Has staff development programs covering information about SWDs and support available to them	No	Yes

Table 4.5 indicates 9 parameters that were analyzed by the researcher as available or not available in the Public Universities in Kenya in regard to disability policies. Regrettably, none of

the assessed parameters was found to be available in Public Universities in Kenya. However, the findings of the survey, focus groups as well as interview with participants showed that, although two of the universities have a disability policy, the policies have not yet been implemented. In one of the universities, the policy has not been released to the public yet. The third university still had its policy in draft stage. It can therefore be concluded that currently, provisions for SWDs at these public institutions is not governed by any policies. This also implies that the provisions are left to the whims of the universities. This is consistent with the findings of Chataika, Mckenzie, Swart and Cleophas (2012) who decried that absence of policies on disability denies SWDs equal educational opportunities in Africa.

4.4.4 Accessibility to Physical Environment

Table 4.6 Accessibility to physical facilities

Parameter	Level of Accessibility %			
	Univ. A	Univ. B	Univ. C	Average
Teaching accommodations	60	40	6	35.33
Library	80	30	50	53.33
Toilets	40	10	30	26.67
Residential Places	30	10	50	30.00
Sports/leisure facilities	80	5	20	35.00
Refectory/ dining halls	50	15	70	45.00

Data in Table 4.6 shows the level of accessibility to physical facilities by SWDs in Public Universities as reported by the respondents. The average accessibility percentages are 35.33%

for teaching accommodations, 53.33% for library, 26.67% for toilets, 30.00% for residential Places, 35.00% for sports/leisure facilities and 45.00% for refectory/ dining halls. It can be concluded that accessibility to the library was easier than accessibility to other physical facilities with accessibility to the toilets being most challenging for the SWDs. However; generally most of the university physical facilities are largely inaccessible for SWDs. This finding is consistent with the findings of Anambo (2008) study which revealed that the JKML of the UoN had no facilities, resources and equipment such as the lifts, spacious ramps, Braille materials, sound amplification installations required by SWDs.

4.4.5 Future Plans for Provision for Students with Disabilities

Table 4.7 Future Plans for Provision for Students with Disabilities

University	Future Plans for Provision for Students with Disabilities
A	<ul style="list-style-type: none"> • More sensitization and empowerment sessions. • Establish a fund to help those students with upkeep problems e.g food. • Commitment to formulation and implementation of disability policies as well as provision of disability friendly policies. • Expansion of the unit handling the disabled to become more inclusive and establish similar units in other campuses.
B	<ul style="list-style-type: none"> • None as yet. • Upcoming buildings are meeting disability accessibility requirements. • Enumeration to establish the number of SWDs enrolled in the university, types of disabilities, and the nature of support required by the students.
C	<ul style="list-style-type: none"> • Domesticating/Implementing fully the disability policy. • Put in place relevant resources, structures and process to support SWDs.

Table 4.7 presents the Future Plans for Provision for SWDs as suggested by the respondents from the respective Public Universities. The future plans that cut across all the universities are more concerned with allocation of funds, acquisition of resources and sensitization and empowerment. However, this seems to be just a mere mention since it was not reflected in any action plans of the respective universities as a show of commitment.

Table 4.8: Documentary Analysis- How Disability Issues are addressed in University

Strategic Plans

University	Documents Analyzed			
	Strategic plan	Student information handbook	Course outlines	Websites
A	<p>Directorate of Disability Services not listed on the list of campuses, centers, directorates, institutes & units.</p> <p>No mention of services and accommodations provided for SWDs.</p>		No disability statements	<p>Services Rendered to Students:</p> <ul style="list-style-type: none"> • Information in relevant format (Braille, large print, soft copy) for visually impaired students. • Suitable accommodation facilities for students • Linking students with disabilities to bodies that may offer financial assistance. • Assisting students with disabilities to obtain assistive devices through linkages with national and international organizations that may provide such devices. • Collaborating with administration and teaching departments to ensure that SWDs

				<p>receive appropriate instructional and support services to facilitate their learning.</p> <ul style="list-style-type: none"> • Liaising with administration, estate and other relevant sections of the university to minimize ensure (<i>sic</i>) physical barriers on campus.
B	No mention of services and accommodations provided for SWDs.	Same as what is on the website	No disability statements	<p>Students with disabilities support and accommodations</p> <ul style="list-style-type: none"> • Facilitating access to university buildings. • Providing services, awareness activities and advocating for accommodating university policies & procedures. • Advocacy &/or advice on issues related to disability. • Suitable accommodation for WSDs. • Provision of disability aids e.g. hearing aids. • Repair & maintenance of mobility, visual & auditory aids. • Sign Language training & interpreter services for hearing impaired. • Braille services & printed materials in alternative formats for visually impaired. • Consultative & counseling support for SWDs. • Transport within &

				outside of the university for students with physical disabilities.
C	No mention of services and accommodations provided for SWDs.		No disability statement	None

Table 4.8 shows how Public Universities have addressed disability issues in their strategic plans. The table indicates that university A has “inclusivity” (Kenyatta University, 2005, p. 9) as one of the goals that the university sets to pursue as indicated in its vision statement. Part of A’s mission is to “provide quality education and training” (Kenyatta University, 2005, p. 9) and within university A’s philosophy is “...responsiveness to the right of every person to knowledge” (Kenyatta University, 2005, p. 9). Inclusivity, quality education and responsiveness are at the core of what university A exists for and sets out to pursue. The university has demonstrated this in a number of ways. For instance, among the three studied universities, it has the highest enrollment of SWDs, estimated at 150, although the data sources on enrollment were not reliable as there were no well-kept records. The students indicated that the university provides a number

of accommodations and services to enhance them pursue their academics at the university. The faculty indicated some strengths of the university in providing for the needs of SWDs. One of university A's flagship projects was to establish a unit for disadvantaged and vulnerable groups (special needs office). Indeed in 2012, the university established a Directorate of Disability Services" (Kenya University, 2005, P. 41).

Although University A has been in the forefront in providing accommodations and related services to SWDs, there is a wide gap between policy and practice in this university. This was clearly indicated by the students' rating of the services that they utilize at the university. There is a clear indication that the range and types of accommodation and services is very narrow, and the students feel that more needs to be done in this respect. Actually student with hearing impairments indicated that they do not receive any accommodations at all hence they find it very difficult to navigate the university curriculum. The faculty also indicated that there is a lot more university A could do to improve the provisions and supports for this category of learners.

In University A's strategic plan, there is no indication of the number of SWDs enrolled in this higher learning institution, although the total student population is indicated and broken down by mode of study, school and gender (Kenya University, 2005, p. 17). This is a serious omission, in my opinion, since for the university to be able to meet its commitment to inclusivity, provision of quality education and training, and to be able to respond to the rights of every person, then the university needs to know the number of SWDs that are enrolled in the university as well as the specific types of disabilities that these students have in order to adequately budget for their needs.

It seems since the revision of the strategic plan in 2008, no “fundamental changes” (Kenya University, 2005, p.40) have been made to “address the needs of learners with special needs” (Kenya University, 2005, p. 40) as per the universities commitment to equity in line with Kenya Vision 2030. This is evident from students’ responses (FGD, SSI). In its statement of commitment to accord equity and fair treatment, University A had only listed those students with physical disabilities as included in this commitment (Kenya University, 2005). This indicates how narrow the University defines disability. As such, a large proportion of SWDs at higher education, especially those with invisible disabilities such as learning disabilities and psychological conditions are likely to be excluded from accessing education at this level. University A indicated that during the strategic and vision plan period, the university “will undertake to introduce a support mechanism for learners with special needs” (Kenya University, 2005, P. 40). However, almost six years since its revision of the strategic plan, the students reported that the provision of services was uncoordinated and they were often tossed from one office to the other as they sought services (FGD).

University A stated that it would “Design and redesign physical facilities to cater for people with special needs” (Kenya University, 2005, p.41). Indeed, a library installed with lifts, an elevator and a special needs section equipped with some auxiliary aids had been constructed, and the students appreciated that they could consequently access the library’s five floors. However, the blind students said they were not able to know whether the lift was moving up or down since they could not see the arrows that indicated the direction of movement of the lifts. The students also appreciated that they could access some specialized assistive devices in the special needs section which enable them to access course content. However, they were concerned that they

often faced challenges using the computer accessibility software due to frequent technical hitches that took time to be fixed.

Furthermore University A cites that one of the strategies to achieve inclusivity is by “developing affirmative action policy for disadvantaged and vulnerable groups” (Kenya University, 2005, p.41), and therefore one of University A’s targets and outputs is “formulated and implemented policy that addresses the needs of students and staff with special needs” (Kenya University, 2005, P. 41). Though the Special Needs Policy has been formulated, data from the Directorate of Disability Services indicated that the policy was still in draft form, awaiting ratification by the Vice-Chancellor. However, just like in the case of the other two studied universities, the policy has been anchored on the PDA which was founded on charity and medical models of disability. As such phrases like “give care” to students with disabilities have been used. This shows that the universities still view PWDs as sick and therefore needing care. This attitude takes away control from PWDs leaving them powerless, denying them opportunity to make decisions on issues that affect them, in this paternalistic approach to disability.

Similar to University A, the strategic plan of University B indicated that part of its mission was to “provide quality education and training” (University of Nairobi, 2012, p. 2). And as was the case in University A, SWDs indicated that they lacked basic facilities to enable them pursue their education effectively. One of the major concerns among the students was lack of Braille machines for the blind students, an assistive device without which they were unable to make notes during lectures and write their assignments and examinations.

To actualize a visionary leadership one of the strategies that University B will employ is to “ensure that all staff and students embrace the vision, mission and core values of the University” (University of Nairobi, 2013, p. 4). In order for the students to embrace the vision, mission and core values of the university, they need to identify with them and feel a part of the University community. However, there was no indication in the vision and mission statement that University B embraced diversity and inclusion. Students with disabilities may therefore not be able to know whether they are welcome in University B by a look at its guiding statements.

In order to achieve success in teaching and learning which is the core business of University B, there are a number of objectives that will need to be achieved. One of them is to “actively promote diversified modes of delivery” (University of Nairobi, 2013, p. 3), which will be achieved partly “by encouraging the use of technology in teaching” (University of Nairobi, 2013, p. 3). As far as teaching and learning of students with disabilities is concerned, there does not seem to be any use of technology. A deaf student in this university indicated that he was unable to follow lectures since all the lectures are delivered orally (Bd, SSI). This is confirmed by data from the Disability Services Survey where from a wide range of assistive devices that could be used in teaching SWDs, only Braille machines was indicated as provided in B. However, contrary to the statement from the disability services office, most students indicated that they were not provided with any Braille machines.

Another of the objectives in University B towards achievement of success in teaching and learning is “To strengthen and sustain implementation of gender, marginalization, HIV/AIDS and disability policies”. The strategy is to “formulate and implement policies on gender, disability and marginalization” (of Nairobi, 2013, p. 4). Towards this end, University B had a

disability policy in place. However, the students said they were not involved in its formulation and they were not even aware that it existed (FGD). This was confirmed from an interview with a senior faculty member who said that the policy had not yet been released to the public nor has it been fully implemented. The reason University B had not yet released the policy to the public, according to the faculty member, was because the policy had a huge financial implication in implementing and if the document got to the public domain then stakeholders would demand for its full implementation and the University did not have the finances needed to do so.

In an interview with another senior member of administrative staff, it was confirmed that the disability policy had not been released to the public yet and the reason she gave for withholding it was that the document needed to be edited before it could be released. When the researcher asked her how the University implemented the policy without availing it to the public, she said that the needs of SWDs were addressed on a case-to-case basis, and it was during such instances that they referred to the relevant sections of the disability policy.

From the foregoing, it appears that having a policy in place in the universities is one thing, and implementing them is another. This could all boil to the question, “what motivated the formulation of the policies in the public universities, and on what are these policies anchored? Data from faculty survey indicated that one of the incentives for universities to formulate the disability policies was to meet the requirements for Vice-chancellors’ renewal of contracts. The Ministry of Education requires that all public universities should put in place disability policies. As such, there is concerted effort in the universities to meet this requirement. The other incentive as indicated in the disability policy documents is to align with the Kenya Constitution (2010) and Persons with disabilities Act (2003). Since the PWDs Act approaches education for PWDs from

a charity model instead of a human rights model, this has also been reflected in the disability mainstreaming policies of the public universities studied. There is no law that requires the universities to implement these policies, not even the PWDs Act; neither does any law spell out penalties for non-compliance. It is therefore not surprising that the universities that have the policies in place had not yet fully implemented them (B & C), while the other, (University A) had even not as much as ratified its draft policy. Indeed, the Person's with Disabilities Act was implemented in piecemeal and that puts PWDs at a disadvantage since their needs are not met immediately. The provisions in the Constitution (2010) on education for SWDs need to be enforced in Kenya. In fact, studies such as (Barnes 2005; Butterwick & Benjamin, 2006) indicated that legal provisions by themselves are not enough to bring about desired practices hence a more comprehensive arrangement of evaluating provisions and regular deliberations with learners was required to build a more equitable higher learning environments.

Similar to Universities A and B, University C also indicates that its mission is to provide accessible education and training (JKUAT, 2012). To accomplish this mission it is expected that the university should provided an enabling environment for all learners, including SWDs, as this would ensure that effective learning takes place. However, the students indicated that they lacked necessary accommodations to enable them undertake their studies with least challenges. For instance a student on wheelchair recounted the challenges he faced in moving from one class to another. He also cited that some of his classes were scheduled in buildings that were inaccessible, in upper floors where there was neither a lift nor a ramp. The student said that he usually struggled to have the venues changed to accessible ground floor venues. The student also indicated that computers through which to access the library catalogue were placed on tables that

were too high for him to access from the wheelchair. Furthermore, the bookshelves in the library were very high and some of the books had been placed too high or too low on them for the student to reach from the wheelchair. Furthermore, the aisles between the shelves were too narrow to allow movement of the wheelchair, particularly when other library users were browsing materials on the shelves. This student consequently found it extremely difficult to retrieve books that they need for his coursework.

One of the core values of University C is to adopt the most appropriate technology. However, there was minimal integration of technology in instruction, which could otherwise benefit all learners, including SWDs. A student who is an amputee recounted his ordeal in commuting from an off-campus hostel to the university and from one class to the other within the campus. The student pointed out that he would not have to go through such pain if the university would introduce on-line classes, as then he would undertake most of his courses from home. At the time of data collection for this study, the university only offered one on-line unit exclusively to self-sponsored students, meaning students in full-time courses had no access to these courses.

University C cited one of its strengths as improved student welfare services for high student retention. However students indicated some basic services such as campus transportation and the messes, which have rotating doors, were inaccessible for students on wheelchair (C, FGD). The general campus grounds were also inaccessible to students on wheelchair since there were hardly any ramps or curb-cuts.

The strategic plan of University C did not indicate the proportion of SWDs in the university. This raises questions as to how the university plans for provisions of this category of learners and how it would plan to meet the $\frac{1}{5}$ proportion as required by the affirmative action policy.

Table 4.9: Document Analysis- University Disability Mainstreaming Policies

University	Disability Policy	
	Strengths	Weaknesses
A	<p>Has a draft disability policy.</p> <p>Acknowledges that the Persons With Disabilities Act prohibits discrimination on basis of disability.</p> <p>States the aim of the policy is to comply with PWDs Act, & the Kenyan Constitution, Bill of Rights.</p> <p>Mentions universal design as necessary in providing services.</p> <p>Does not spell out the procedure for requesting for accommodations.</p>	<p>Policy not yet ratified by the Vice-chancellor, almost two years since it was drafted.</p> <p>Universal design is only emphasized with regard to physical accessibility and not in all programs and services offered by the university.</p> <p>No mention of accommodations</p>
B	<p>Has a disability mainstreaming policy.</p> <p>Acknowledges participation of SWDs in formulation of the policy.</p> <p>Has a person with disability in the disability mainstreaming committee, who is also a senior faculty member of the committee that came up with the policy.</p> <p>Disability inclusion in administration.</p> <p>The director of disability</p>	<p>Office of disability services not provided for in the policy.</p>

	<p>inclusion shall be a senior academic member of staff with a disability & shall sit in senate.</p> <p>Acknowledges it is a legal requirement to provide SWDs reasonable accommodations.</p>	
C	<p>Has a disability mainstreaming policy.</p> <p>Acknowledges disability mainstreaming is a legal requirement.</p>	<p>Does not mention SWDs as contributing to the formulation of policy in the acknowledgement.</p> <p>No provision for a person with disability in the disability services advisory committee as is required by the Kenya constitution-</p> <p>Does not state that the university is required by the law to provide reasonable accommodations to SWDs.</p> <p>Does not spell out the procedure for requesting for accommodations and for appealing, where accommodations have been denied to SWDs.</p> <p>The office of disability services is under the directorate of gender and mentoring center.</p> <p>Has open statements in terms of reference for DSO such as “carry out monitoring and evaluation” that do indicate a lack of focus and commitment</p> <p>Overall the policy lacks detail for implementation.</p>

Table 4.9 indicates details on the way Public Universities addressed disability and related issues in their policy documents. Students have not been mentioned in any of these documents. The fact that SWDs had not been acknowledged as contributors in formulation of the disability mainstreaming policy confirms the students' responses in University C that they were not aware of existence of such a policy and that they were not consulted in its formulation. This finding is consistent with the assertion by Abery and Stancliff (1996) alluded to earlier, that SWDs often did not participate in making decisions where their accommodations were determined. Failure to provide for representation of PWDs in the disability services advisory committee shows that the university administration was still operating on a medical model of disability in which PWDs are viewed as incapable of making their own decisions, and therefore the able-bodied people make such decisions, which affect these individuals' lives. Arguing against this "ableistic" attitude towards individuals with disabilities, Baglieri & Shapiro (2012) have pointed out that:

The message of disability rights is really quite simple: People with disabilities should direct the course of their lives. When unable to advocate for themselves, decision-making should be done according to the individual's best interest, which would protect his or her dignity, and quality of life with support- noting that such interests are not necessarily, the same shared by their caretakers and health professionals, educators, or other systems through which they are served. Enduring stereotypes and prejudice prevent the wide acknowledgement of these values, which in turn, maintain the hold that a medical model has on disabled people (P. 96).

In University C the office of disability services is under the Directorate of Gender and Mentoring center. This was cited as problematic by SWDs because they said disability issues were overshadowed by gender issues, hence it was necessary to have a separate office of disability for effective delivery of services to the students. (C, FGD). This is further confirmed by the comments from an interview with the Director of this directorate who said:

I don't know why they put disability under the Directorate of Gender. I personally know nothing about disability. I really don't know how to assist these students. I hope the administration will create a separate directorate for disability. See, even the directorate office is located in third floor, which means that some students are not able to access it, especially the wheelchair users.

Despite the concerns cited above by the Director, he was quite optimistic that something could be done to provide needed supports to the SWDs. He further explained that the current situation for SWDs was occasioned by the fact that no SWD had been enrolled in this university previously and that they did not expect any students in this category so soon. They were taken by surprise by the JAB when it decided to implement the $\frac{1}{5}$ affirmative action policy without notice to the universities. Asked what future plans the university had on disability he said that the university had formulated policy on PWDs and would implement it to ensure the individual needs of the students were met. He also reported that the university intended to establish a Center for Disability Rehabilitation, which would engage in rehabilitation of SWDs and as well as in production of affordable assistive devices and equipment that are needed by PWDs. This, center, once completed, he hoped, would serve the whole country.

The misplacement of disability issues is further illustrated by the comments of another lecturer in the same university in counseling department. He explained the following during a face-to-face interview:

Actually, I don't know why they say I am responsible for counseling SWDs. I am not trained to counsel this group of learners. I am actually responsible for counseling the general student body, not specifically those with disabilities. I think placing disability-counseling issues in my office is just a way of avoiding to address issues of SWDs since I am not even facilitated in any way to give supports or any relevant services to these students. Whenever the students have a need they are referred to my office, yet I am not in a position to offer solutions to their problems, except give them guidance on a few of them. However, I feel I am not able to reach them as much as I do with the non-disabled students.

The lecturer continued to say that he would require specialized training to enable him offer effective counseling services to this group of learners, which he described as “very complicated”. He said that he did not imagine that the university could one day receive a student who is deaf, as that would drive everyone crazy since no one has any idea as to how they would handle such a student. He pointed out that the student on wheelchair caused them extreme panic from the moment he reported to the university, so a deaf student would be unimaginable to have in that institution considering the current state of provisions for SWDs.

University A’s policy does not mention the word accommodations. This may be an indication that the term is not known and understood in the university. Actually, one of lecturers in commenting on the proposal for the current study said that the researcher should correct the spelling of accommodations since the correct word has no plural. I explained that the spelling was correct but the said lecturer insisted that it was wrong. She explained that accommodation is a place where people live and has no plural. It was then that I realized she did not understand the term as used in the proposed study. I later confirmed as I talked to the faculty members about the proposed research that most of them thought the term accommodations was to do with students’ housing. At that moment reality struck the researcher regarding the high level of ignorance on disability amongst lecturers, administrators, the students and the general university community.

University B indicates that it involved SWDs in formulation of the policy through survey and focus group discussions. University B also has a person with disability in the disability mainstreaming committee, who is also a senior faculty member and a member of the committee that came up with the policy. There is also reflection of disability inclusion in administration in University B. The director of disability inclusion shall be a senior academic member of staff with

a disability, and shall sit in the senate on behalf of PWDs. University B also acknowledges that it is a legal requirement to provide SWDs reasonable accommodations.

It is however notable that the office of disability services is not provided for in the disability mainstreaming policy. However, there is provision for establishment of a disability resource center. A fundamental question arises as to who will be responsible for provisions of accommodation and other auxiliary services to SWDs. Of great concern also is that the policy is, however, not yet available to the public.

From the above analysis, it is evident that all the three universities have some sort of policy on disability. Disability issues are mentioned in the universities' strategic plans, although they do not seem to be among the universities top priorities. Universities B and C have disability mainstreaming policies in place, which they recently launched, while University A had not yet ratified its draft policy on disability at the time of data collection for this study. The policies have not been implemented due to financial implications. This finding is consistent with Hill (1992) who pointed out that failure to provide required supports due to lack of finances to hire adequate staff was a critical issue both to the personnel and to students (West et al., 1993). While urging students to develop autonomy and consequently allowing more time for the personnel in the Office of Disabilities Services to attend to the most pressing needs would be quite helpful, the truth remains that a number of supports that learners are supposed to be given as a right are not available in postsecondary learning environments. HEATH Resource Center (1992) noted that absence of supports was of great concern because the proportion of SWDs was projected to rise progressively. Some respondents in the present study stated they feared they would be "less competitive than their nondisabled cohorts" because of poor services as was the case for

respondents in the study by West et al. (1993, p. 464). As earlier indicated, it is important to acknowledge that, more often than not, availability of services greatly determines accomplishment of learners. Higher learning institutions consequently ought to endeavour to guarantee that they accord SWDs a chance to compete on the premise of their strengths, rather than on their shortcomings. The observations by Hill, West et al. and HEATH in the foregoing are consistent with the findings of this study that shortage of finances is a major barrier to students' success at higher education.

4.5 The Range and Types of Support and Accommodations Provide to SWDs in Kenyan

Public Universities

The second task of this study was to establish the range and types of support and accommodations provide to SWDs at Kenyan Public Universities. To answer this question, data from student survey, Office of Disability Services (ODS) data and document analysis were triangulated. Tables 4.10 presents data from ODS.

Table 4.10: Accommodations and Support Services Provided by Kenyan Public Universities to SWDs

Univ.	Accommodations/Services Offered							
	Accommodations	Support Services	Advice & support	Information provided	Assistance in seeking financial aid	Equip. Adaptation	Facilities	Professional Development
A	Braille services	Accessible transportation	Acquisition of supportive devices by KU Health Unit	Sensitization on disability provided during freshers' orientation week	Connect them to NCPWDs & national Funds for the disabled.	Computer screen readers	Housing on campus	None
	Readers	Campus orientation				Computer text magnifier	Housing on campus	
		Referrals to local & national disability agencies						
B	Alternative exam format	Accessible transportation Campus orientation						Disability fact sheets Staff development
	KSL interpreters		Referred to students information handbook but there is nothing specific to SWDs (p. 89)	Referred to students information handbook but there is hardly any information for SWDs.	None is specific to SWDs, however the same is provided to all students but on a case-by-case basis.	None	Housing on campus	

	Braille services	Referral to local & national disability agencies						
		Registration assistance						
		Transfer assistance						
		<p>Advocacy&/advice on issues related to disability</p> <p>Suitable accommodation for SWD</p> <p>Provision of disability aids such as hearing aids (students information handbook, 2013, p. 88)</p> <p>Services provided by the Office of the Dean of Students</p>						

C	Braille services	Accessible transportation	Counseling services by the Office of the Dean of students Support services provided by the director.	Sensitization in the campus on quarterly basis	Affirmative action in scholarships consideration	None	Housing on campus	None
		Community outreach		Information on PWDs mainstreaming policy				
		Job placement		Meetings and workshops on disability issues organized by the director				

Table 4.10 indicates the range of accommodations and services provided by the Public Universities in Kenya. All the three universities cited that they provide Braille services/materials, accessible transportation, and on-campus housing. Table 4.10 provides information obtained from documents from each of the universities that were analyzed to find out the range and types of support and accommodations provided to SWDs at Kenyan Public Universities.

Notably, Directorate of Disability Services is not on the list of campuses, centers, directorates, and units in University A's strategic plan (Kenyatta University, p.22). Moreover, none of the Public Universities indicates the procedures for students to follow in requesting for the services and accommodations provided to the students.

Generally, it is evident from the Disability Services Survey, the Students Survey and document analysis that Kenyan Public Universities have made some effort to provide support services and accommodations to SWDs. However, the data indicate that the range of support services and accommodations provided by the universities is very narrow. Moreover, the universities provide just a few types of accommodations, yet the disabilities represented in these universities are of a wide range.

Across the universities, responses from the students' survey and those from the Offices of Disability Services Survey indicate that the accommodations that the universities provide to SWDs are very few and of a very narrow range. This is unlike the practice of provision of supports in developed countries where a wide different types of accommodations of varies range are provided. For instance, Stodden, Whelley, Harding, and Chang (2000) conducted a survey of

colleges in the U.S. regarding the types and frequency of educational supports offered to SWDs. The most common were: testing accommodations, note takers, personal counseling and advocacy. In addition, organizational skill assistance, study skills programs, and career related services were often provided.

Table 4.11: Frequency (%) Accommodations Utilized by Students in Kenyan Public

Universities

Accommodation	Frequency (%)
Brail machine	2 (4.8)
Braille materials	18 (43.9)
Eye glasses	1(33.3)
Reading lens	1(33.3)
Lecture notes	5 (20.8)
Lecture notes through email	1(4.1)
Enough space for wheelchair	6(37.5)
Unit waiver	4 (5.9)
Unit substitution	3 (4.47)

The accommodations that SWDs reported utilizing in the universities are shown in Table 4.11. Clearly, these are of a very narrow range considering the array of accommodations available for SWDs (see Appendix D). These responses are consistent with those from the DSO which also indicate a narrow range of accommodations that they provided to SWDs. Although there was a wide range of accommodations listed in the questionnaire from which the administrators of disability support services were asked to indicate the accommodations and related services that they provide for SWDs, the number they indicated is very small. This means the universities are providing a very limited number and range of accommodations to this category of learners.

University A indicated that it provided Braille services and readers for students who are blind, while University B cited that it provides alternative exam formats and sign language interpreters. University C cited providing only Braille services.

As indicated in table 4.13 students cited utilizing other accommodations and services such as Braille machines, lecture notes in form of hard copies or email, enough space for wheelchairs, unit waiver and unit substitutions. It appears the offices of disability services or the other offices responsible for disability accommodation are not aware of all the services that the students utilize in these universities. This could be an indication of lack of coordination in the provision of support services and accommodations to SWDs in Kenyan Public universities.

Although the students in University A appreciated that they received brailled materials, they said that these were received only during examinations, as examination question papers and answer sheets. They were also concerned that the materials are delivered behind schedule during

examinations and they have to wait while non-disabled counterparts progressed with the examination. This caused them a lot of anxiety and they believe it impacts negatively on their performance in the examination. Students at University B cited that no reading materials were available in Braille in University B, neither were Braille machines available for them.

University B indicated that it provided sign language interpreters for deaf students, however, one of the students who were interviewed cited that he does not get any interpretation services from the university; hence he is unable to follow lectures that are basically delivered orally. An excerpt from an interview with Bd, who is deaf, illustrates this:

I am not provided with an interpreter for communication skills and chemistry. The university should provide an interpreter for me in these units because I find them more challenging. The teacher will go and stand there and continue talking and I cannot even take notes because I cannot hear what he is saying (B, d, SSI).

I asked this student (Bd) to tell me his experiences with lectures in the other units and he said:

I read books but the problem is explanation, for example in mathematics you need to know how this is done, why this, why this and how this, and without explanation you can't follow anything. I therefore need an interpreter in all units to enable me follow lectures (B, SSI).

The student went further to explain that even the learning materials that the university provides are too complex for him to understand. He said thus:

Even the textbooks that are you find in the university library have a written in very complicated language. I hardly understand their contents. These books are very different from the ones I read in the high school which had an easy to understand English. The ones in the university library are obtained from U.K and have very difficult English.

What Bd is saying above is that he does not receive interpretation services from the university and therefore finds it difficult to follow lectures because they are basically delivered orally. He hopes that the university could provide interpreters, as this would enable him benefit from the

lectures. He further points out another important issue, the appropriateness of the language level used in the instructional materials. Generally, deaf students have challenges in understanding English, since for most of them it is a second language, their first language being Sign language. Consequently, for them to comprehend any materials in English, the language ought to be simplified to their level of proficiency.

In an interview with a senior member of administrative staff in University B, he said that as faculty they were facing challenges teaching the deaf student (Bd) due to lack of sign language interpreters. In exploring how to provide interpretation services, the administrator pointed out the challenge would be getting interpreters who are able to interpret specialized science content effectively since the interpreters that are trained in Kenya have low academic credentials and are only trained to interpret in conversational situations. Complicating this situation further, according to the administrator is the fact that the documented Kenya Sign Language lacks in scientific lexicon. This makes it impossible to interpret in academic settings especially in science disciplines. The researcher asked the administrator how the university hoped to assist the student get on with his academic program and he replied:

The situation is desperate. This student has been moved from one department to the other, this being the third. In each of the previous departments the faculty felt they were not able to teach him since they were handicapped, especially in communication. The administrator felt the student would benefit from use of a laptop, as the lecturers would provide lecture notes in electronic form for him to review after class. The administrator was however quick to note that the student cannot afford a laptop since he comes from a poor family.

4.5.1 Transportation

The three universities indicated that they provide accessible transportation to the students. While the students at University A appreciate that the transportation is offered, they cited that the

services are inadequate and unreliable. They said that there are only two “tuktuks” (three wheeled motorcycles) that currently move them to and from lecture halls within the campus, the rest having broken down and have never been repaired. The students who use wheelchairs said the “tuktuks” are inaccessible for them since they have to be lifted off the wheelchair first and then into the “tuktuk”. They said they find this very embarrassing and demeaning to them but they have to put up with it since there is no alternative. The students in this university also said the capacity of the “tuktuks” is so small that once one person who uses a wheelchair gets into it and the wheelchair is also put inside, much of the space gets occupied and only about two more people can be carried on the same trip. Another concern about the “tuktuks” is that they did not have doors and windows. Therefore when there whenever there was rain, the students aboard became wet from the rains and by the time they reached the lecture halls they would be too wet and cold to concentrate on the lectures.

4.5.2 Campus Orientation

All the three universities indicated that they provide campus orientation to SWDs. However, the students reported that the orientations were general, that is, for all first year students and none was conducted specifically for SWDs. As such, they did not find them beneficial since issues of their disability- related concerns were not addressed. Only B indicated that it provided registration assistance for SWDs. However, in the focus group discussions the students said that the university did not offer any assistance and that the assistance that they received was from a group of volunteers from a local church. Nevertheless, the students appreciated the assistance, indicating that without it, it would have been very difficult for them to undertake the registration exercise (B, FGD). The provision of registration assistance wholly by volunteers from a local

church, and none by the university itself is an indication that the university still operates from a charity model of disability. Orientation sessions for all new students and staff ought to include detailed information on services for SWDs. West et al. (1993) suggested that the students' "Bill of Rights" be displayed in strategic places such as classrooms. Such documents could also be posted in places where lecturers usually meet in order to raise faculty awareness with respect to the need for early referrals.

4.5.3 On-campus Housing

The three universities also indicated that they provide on-campus housing to SWDs. The students cited this as strength in service provisions. However, in University A, students who use wheelchair reported that the rooms reserved for them are not fully accessible. Some cited that the rooms were too small to allow maneuvering of the wheelchair. They also reported that the sinks were too high to allow them to fetch water and had to rely on help from non-disabled students to assist them obtain water. Another concern cited was that the clotheslines were too high for them to hang and collect their clothes. Students with visual impairments indicated that though they require a single room, they often have to undergo a lot of struggle to get those rooms, because the rooms are usually allocated to the non-disabled students. They pointed out that there is no laid down structure or policy for allocation of rooms to SWDs so the housekeepers who allocate them often refer the students to other offices and this continues from office to office and this, they said, is very frustrating. In universities B and C, students were concerned that the universities provided on-campus housing to only those students who are admitted through JAB and failed to provide the same to those under self-sponsored programs. They cited the difficulties they have to go through each morning as they commute, using public transport to the campus to attend their classes. They felt this was a discriminatory practice. In University C, a student cited

that when he reported in the institution, there was no room that was accessible for him on wheelchair. The bathrooms and toilets were also not accessible. However, later modifications were made on one of the bathrooms on ground floor for him. He narrated experience at reporting in the university:

I was allocated a room in a hostel, upstairs. I was unable to get there on wheelchair on my own since there was neither a ramp nor a lift on this building. I had to be carried to and from my room by fellow students. It was really embarrassing for me but there is nothing I could do because I needed to attend lectures. The bathrooms and the toilets were also not accessible. The toilet was too small to allow the wheelchair in. they even did not have rails to provide the support that I need to get on the toilet and back on the wheelchair. The bathrooms too were too small to allow the wheelchair in and just as the toilets; they did not have rails to provide the support that I needed. When I informed the administration, they got into a panic. They told me that they did not know that I had a disability and that I used a wheelchair. They quickly allocated me a room on ground floor of the same building. Though I could now move in and out of the room by myself, it was still impossible for me to use the bathrooms and the toilets for the reason that they were also too small to allow the wheelchair in and they lacked handrails to provide support. However, after a short while one of the toilets and a bathroom were modified to make them accessible on wheelchair. But the non-disabled students continued to use the toilet, and most of the time misused them since they usually made the toilet seat them too untidy for me to sit on. This was despite the fact that they were aware that this toilet had been reserved for SWDs. I discussed the issue with the counselor and I was given the key so I could lock the door after use. However I found this very cumbersome and I wondered at the insensitivity of the non-disabled student on the needs of SWDs.

The student's account in the foregoing illustrate how unprepared the university is to receive SWDs. It also illustrates the attitude of the non-disabled students towards SWDs. The fact that the non-disabled students assisted the student on wheelchair to get to and from his upstairs room illustrates that they are willing to help. However, in some areas some students may not be sensitive to the needs of these students as illustrated in their misuse of the toilet for the SWDs. clearly, such insensitivity on the part of the non-disabled students impacts on the SWDs in profound ways.

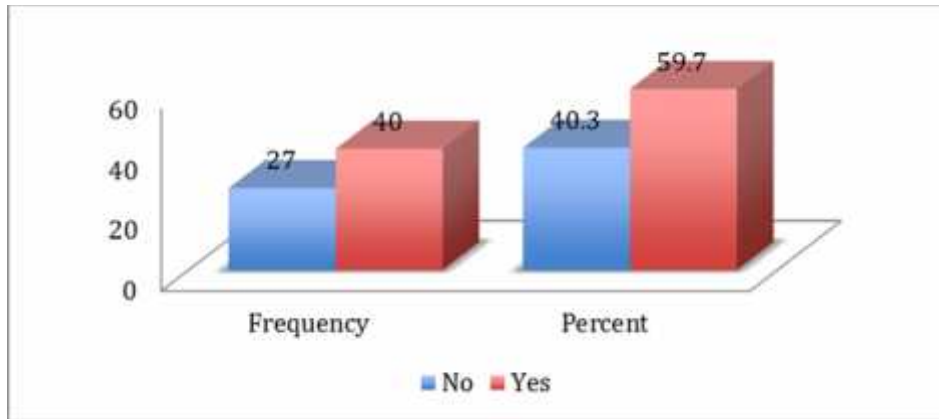


Figure 4.3: Frequency (%) Receiving Accommodations

Figure 4.3 above indicates the number of students receiving accommodations in the three Public Universities. Notably, out of the 42 students who reported receiving one accommodation or the other, none is deaf/hard of hearing. Thus, although universities A and B cited that they provide interpreters for deaf students the responses from student survey indicated the contrary.

Advising Services

Across the universities, the disability service providers cited providing some sort of advice and support to the students. University A specifically cited that students got advice on acquisition of devices at the University's Health Unit. In University B the in-charge said the advice and support services that the university offers were listed in the University's Student Information Handbook 2012/2013. However, an examination of the said document revealed that there was nothing specific on SWDs. University C indicated that the Office of the Dean of Students offers counseling services.

Financial Aid Assistance

Regarding assistance in seeking financial aid, University B indicated that it connects the students to NCPWDs & National Funds for the Disabled. However, the students reported that whenever they sought information on where they could get some financial assistance, they always received very general answers, rather than getting detailed information and guidance that would enable them initiate application process for funding. They therefore said they do not find the office of disability services helpful in that respect. University B said that they do not provide any assistance specifically to SWDs but they offer general assistance to all students, but on a case-to case basis. In University B respondents cited they were not aware of any institution that offers financial assistance to SWDs (B, FGD), although NCPWDS has been offering financial aid to some students in A. University C did not indicate providing any assistance to students in seeking financial aid but cited that it applies affirmative action in scholarship consideration. However, Bd, a student in this university mentioned that he had been advised by the university administration to take an academic leave since he could not raise school fees for the semester in progress (C, SSI).

Transfer Assistance

University B reported that it offered transfer assistance to SWDs. However, a former student of this university cited negative experiences at University B when he sought assistance to transfer to a different faculty, on medical grounds. He indicated that he underwent a lot of frustration at the university, which consequently forced him to drop out and seek admission in University C.

Assistance in Accessing Course Content

University A cited that it offered readers for blind students. Students in University A were appreciative of the services that the volunteers give them. They were however concerned that at certain times of the semester, especially around the times when continuous assessment tests (CATs) and final examinations were scheduled, it became difficult to get the volunteer readers to read for them since these got busy revising for the examinations. Consequently, the blind students said, they were not able to complete their assignments in time, and their academic performance was ultimately affected negatively. The foregoing is an indication that University A still operates under charity model in providing some services to SWDs.

4.5.4 The Views of Faculty Members Regarding Challenges Faced in Supporting SWDs

This question was answered using data from faculty survey and E-Learning survey for faculty. Most of the faculty in universities A and B indicated that the students they find most difficult to assist are those with visual impairments. This is probably because these are the students they have encountered in their classrooms, as they are the largest category in this University as indicated by the demographic data from students' survey. Only a few of the lecturers mentioned having experience teaching the hearing impaired. The reason for this could be that the lecturers were not able to notice these students in their classes because deafness, unlike visual impairment that is easily noticeable, is a hidden disability. Actually deaf students in University A cited that they do not receive any attention from the lecturers neither do they benefit from the lectures because the lectures are basically delivered orally and that they do not get any handouts from the lecturers (Ad4, SSI). Moreover, classes in the Public Universities are usually very large hence it would be difficult to notice these students in these classes. This data, therefore, needs to be

interpreted with caution because the faculty in the studied universities may never have noticed that the hearing impaired students were a part of their classes, especially if these students had not disclosed their disability or requested for accommodations from the disability services offices or from individual faculty members. As indicated in the foregoing, deafness is a hidden impairment; as such individuals who have this condition are not as easily noticeable in the schools and generally in the society. Therefore individuals with other visible disabilities such as blindness and mobility impairments are more likely to be noticed and seen as needing assistance; hence in most cases people will volunteer to help them. It is therefore not surprising that those who have visible disabilities have been given more attention than those in other disability categories, as indicated in the focus groups discussions (A, FGD). Faculty members identified a number of barriers that they encountered in teaching SWDs. These are discussed below.

Faculty members were asked whether they had received training or professional training in accommodating for disabilities in distance delivered courses. As shown in Figure 4.4, out of 37 lecturers responding to this question, over half (55.5%) said “No”, with only 11.1 % saying “Yes”. About 8% said it was discussed in meetings while 13.8% indicated they had explored on their own. A small proportion, 5.5% were not sure and 3% did not respond to this item. This data indicates that a significant number of lecturers in Public Universities had not received any training in making distance delivered courses accessible to SWDs although this mode of learning was steadily gaining popularity in these institutions of higher learning.

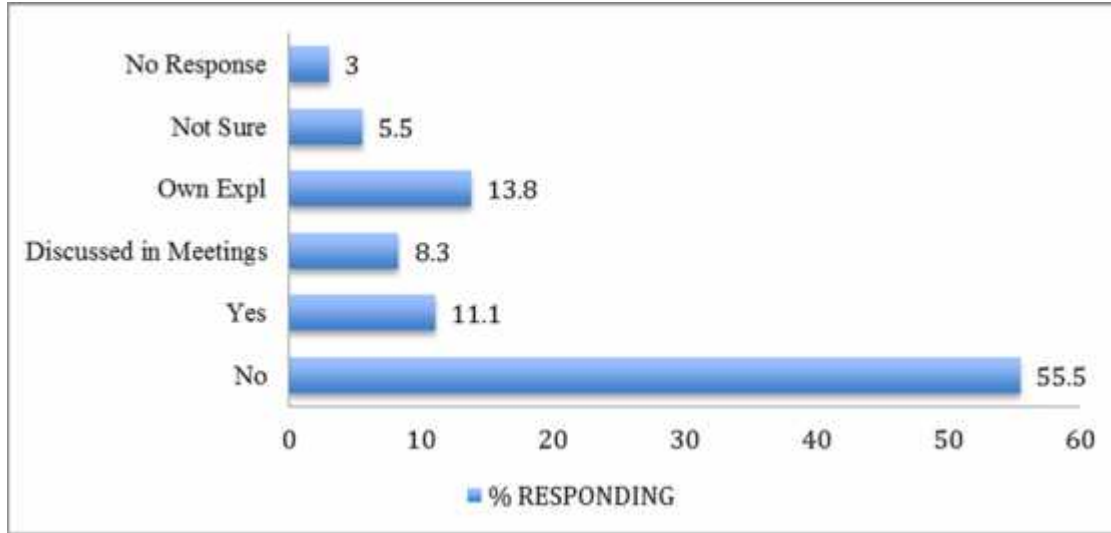


Figure 4.4: Frequency (%) received training or professional training in accommodating for disabilities in distance delivered courses

Most of the faculty in University A, who filled the questionnaire, are aware about extended time on examinations, citing this as a strength of the university in accommodating SWDs. This has not been cited in the other two universities. This therefore seems to make University A stand out above the other two Public Universities in this respect. However, it might be necessary to consider whether the extra thirty minutes on examinations are adequate for all students, since it is given as a blanket accommodation for the blind and partially blind students. The principles of Universal Design need to be applied in order to guide provision of accommodations. One of the guiding principles is that learners are unique and their needs are different, although they may belong to the same disability category. Therefore accommodations should be provided to meet the needs of an individual as opposed to providing blanket accommodations. It is also important

to note here that only the visually impaired get time extension on examination yet there may be other students in other disability categories who may also need extended time to complete their examinations, for instance, the amputees and those with neurological impairments that make writing difficult.

Some of the faculty in University A and B cited having a policy on disability as a one of the strengths of those universities. However, most of the students in these universities said they were not aware that such policies existed, and that they were not involved in formulating them, except one student in University A who said he was aware that one was being formulated and that had been involved in the formulation process (A, B, FGD). In University B lifts on tall buildings were cited as strength in accommodating SWDs. However, blind students indicated that these lifts were inaccessible to them because they lacked voice alerts and Braille signage. Therefore it was difficult for them to know when they reached their destination or whether the lift was going up or down (B, FGD).

Most lecturers indicated that the most beneficial experiences they had in learning how to teach and understand SWDs is that they had realized that these students are as intelligent as the non-disabled and that given an enabling environment, they had the potential to perform as well, or even better than the non-disabled academically and in the other aspects of life. This indicates that before they had experience learning how to teach SWDs the faculty operated from a medical model of disability (Scope, 2014) where the society views individuals with disabilities as incapable and always needing help. The change of attitude indicates that equipping the staff with necessary skills and knowledge on disability would have a positive impact of adopting a

perspective of disability (Scope, 2014) that sees PWDs as capable, and what needs to be done is remove barriers that prevent them from realizing their full potentials. Thus, there is a case for urgent training of staff on teaching every learner, including SWDs at higher education.

Across the universities, lack of assistive and auxiliary devices has been cited by most of the faculty as the greatest obstacle in teaching SWDs. Also most frequently cited was lack of knowledge and skills among faculty in teaching SWDs. This seems to confirm the students' concerns across the universities that most of the faculty do not have specialized skills in handling SWDs. Thus, even those who are willing to assist them, they are unable to do so since they lack knowledge on the accommodations and the psychology of various disabilities (A, B, C, FGDs). Consequently, most of the lecturers have indicated that in-service training should be mounted to equip them with the necessary knowledge and skills in accommodating SWDs in the universities.

Another obstacle that the faculty cited was infrastructure that did not allow movement of students on wheelchair from one lecture room to the other. They pointed out that in tall buildings there were no lifts, hence students using wheelchair were not able to move to classes or wards that were located in upper floors, particularly those in the nursing and pharmacy courses. This confirms the responses from the students who use wheelchairs regarding accessibility of buildings where they cited that most of them were inaccessible (A, B, FGD). Discrimination towards SWDs by the university community was also frequently cited as an obstacle to assisting these learners at higher education.

Most of the faculty indicated that giving scholarships and grants to SWDs would increase their recruitment, retention, completion, and graduation of this category of learners in the universities. They also mentioned provision of testing accommodations and provision of assistive devices and specialized personnel to offer support services to SWDs. Also putting in place inter-university mainstreaming body initiatives and streamlining transfer systems, not just for SWDs but also for the general student population, was mentioned as necessary. The faculty also said there should be coordination among various disability support services in the universities since such coordination was lacking.

It is important to note that some of the faculty in University A indicated that they teach blackboard distance course yet this does not exist in this university. This is a clear indication that some of the faculty members are not familiar with the e-learning, yet they teach distance courses. Question arises as to how effective their teaching is especially with regard to SWDs who require modifications of the courses to make them accessible.

A large majority of the lecturers said they were not aware of the incentive for universities to recruit SWDs. This is interesting because there is a policy that requires universities to ensure that of all the students admitted in any academic year, $\frac{1}{5}$ of them should be SWDs as an affirmative action to increase enrolment of this category of learners at higher education. Only one faculty member mentioned performance contracting for Vice-chancellors and creating a good public image as incentives for universities to recruit SWDs.

Data from faculty survey has indicated that across the universities the faculty faced major challenges in assisting and teaching SWDs as they lacked specialized knowledge and skills in handling this category of learners. Lack of specialized facilities, particularly assistive technology, which they attributed to inadequate funding of the universities by the government, was also frequently cited as a major impediment in teaching SWDs in the studied universities. The faculty indicated that in-service training for the academic staff as well as for the support staff on teaching SWDs would help in overcoming these challenges. They also said it would be necessary for the government to adequately fund the Public Universities to enable them acquire the necessary facilities for teaching SWDs. Responding to an item that required them to state what they believed were the most important features of any staff development program that might even reach those faculty and staff resistant to change, most of the faculty members mentioned sensitization campaigns on disability and related issues.

4.6 Views of Students with Disabilities Regarding Appropriateness of Accommodations offered at Kenyan Public Universities

The first task of this study was to find out the views of SWDs regarding adequacy and appropriateness of accommodations at Kenya Public Universities. Students responded to question one through survey, focus group discussions and one-on-one semi-structured interviews. In the survey, the students responded to 20 items of Likert- type forms in which they were asked to indicate their degree of satisfaction with different aspects of accommodations. The responses were designed as follows: strongly disagree, disagree, undecided, agree and strongly agree. The results of the study are presented according to predetermined themes to find out the current status of policies and provisions for SWDs in Kenyan Public Universities. These themes

are: recruitment, registration, campus orientation, course instruction, financial aid, academic requirements, accommodation procedure, technological environment, student life, physical accessibility and attitude towards students with disabilities.

4.6.1 Recruitment/Admission Process

When the researcher asked the participants to give their experiences with recruitment to the Public Universities during the focus groups, most of them cited that they did not see any materials from any of the Public Universities providing information on what accommodations and services were available for SWDs; nor was there disability depiction on the university application materials provided by the Joint Admissions Board (A, B). Most of the students at University A cited availability of facilities for SWDs as a deciding factor in choosing to attend the university. For instance when asked the question: “What interested you in attending this university?” one of the students responded: “It is the only university that has facilities for PWDs in this country and by pursuing a career in this university I can become what I want without limitation” (A, P6.)

Also mentioned as an influence in choosing the university to attend were personal recommendations (A). One student said the following about the way he got to know about the University A where he is currently enrolled: “I got to know about it when I was about nine years old through an uncle who attended the university” (A, Kd3).

An evaluation of the websites of the three universities indicated that only University A depicted disability while universities B and C did not. Moreover, all the three university websites did not have disability statements indicating that they welcome SWDs. Only University A, in its mission

statement indicated inclusivity. University C cited that its staff occasionally visited the school for the physically handicapped to let them know that they welcome SWDs.

One participant cited the frustrations that he faced in seeking an inter-faculty transfer (transfer from one faculty to another) on medical grounds in B. The university did not accept the student's request to transfer from a Medical Degree course to Information Technology course, nor did the university facilitate his inter-university transfer, which he opted for after the inter-faculty transfer was rejected. This student was forced to dropout from University B and join University C, but as a self-sponsored student; yet he had been admitted in University B through JAB, meaning that the funding for his studies would have been subsidized by the government (C, FGD).

The researcher also investigated university requirements for SWDs; students from all the universities cited that they were aware about affirmative action policy that ought to be applied in admission of SWDs to Public Universities and that some of the respondents had benefited from that policy. However, they felt affirmative action was not applied through since cluster point requirements for specific courses were not lowered for SWDs. Thus, they could not be admitted to degree programs of their choice. They expressed concern that with the same grades that JAB had declined to admit them to degrees programs of their choice they were taken for those courses through the self-sponsored programs, whose fees is too high for them to afford. A visually impaired student recounted his experience regarding affirmative action:

...I got a B (in KCSE)... So I applied for the self-sponsored program, for the degree in Bachelor of Laws, and I was admitted. I reported to the university and a year after that I received an admission letter from JAB offering me a place to University D to pursue a Bachelor of Education degree. I fought for an inter-university transfer seriously; it took me about two months. I came here (to University A) and tried to get an inter-faculty transfer from SSP to JAB but I didn't succeed. Therefore I opted to turn down the offer

from JAB for Bachelor of Education and decided to pursue Law as a Self-Sponsored student. Through that process there is something that was very notable: admissions for persons with special needs was done at that time when I received my admission letter, but there was no clear criteria for admitting SWDs because I had about 63 points which was the cut-off at the time and I was told bluntly that I was not given any special consideration, my name was balloted along with other students without disabilities. So it forces you to the same strict cluster points just like the others (A, V6 FGD)...Really it's like you work so hard and when you pass well you are not considered like other students who don't attain the cut-off. Because for those who don't attain the cut-off, the ones who have disabilities, are considered under special criteria. But if you have a disability and you meet the cut-off, that is 63 and above points probably, that way you will not be considered. You'll be balloted together with the rest of the students. So that exposes you to the same strict cluster points just like the others (A, V6, FGD).

V6 , the same student, continued to recount his experience with recruitment to the university.

Personally because I pursued my issue, I even got the attention of the, secretary of Joint Admissions Board, he told me point blank that the affirmative action is a shallow policy, so probably what they can do is just strike it out of the other system and put in place a criteria for special needs students that puts ...this student who getsand has a disability does not feel disadvantaged for being admitted to pursue a course like the others who are even being admitted with a C Plain, the female students with disabilities. And also, the there is no rationale for lowering the cut-off points for JAB SWDs to C+ yet the cluster points for different faculties still remain the same. So that is why we end up finding ourselves in one course, bachelor of education. I don't know why they prefer it. I don't know why they like it even though people have diverse interests. And all others who have different disabilities who are in different courses most of them are self-sponsored (A, V6, FGD).

Generally, the respondents felt that it was unfair and quite a discriminatory practice for JAB to deny them admission to degree programs of their choice just for the universities to admit them to the same programs through the self-sponsored programs. They also pointed out that this practice further discriminated against those students who had poor socio-economic backgrounds while favoring their peers from rich socio-economic backgrounds, who are usually admitted to these degree programs with similar grades. Figure 3 below shows the distribution of students according to their fields of study. It also appears that students did not readily get assistance for

inter-faculty or inter-university transfers; hence they had to struggle and undergo frustration as they seek these services.

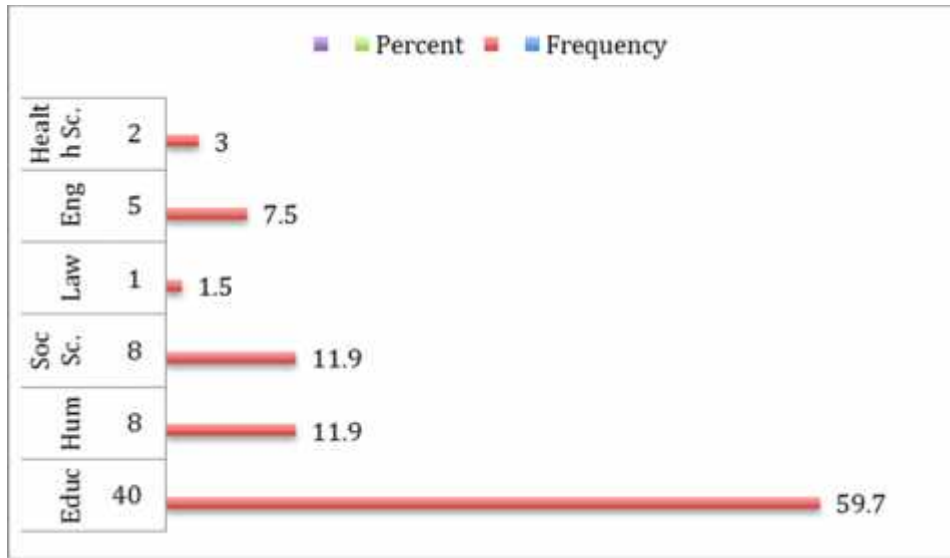


Figure 4.5: Students' Field of Study

Figure 4.5 show that 64 out of 67 students responded to the questionnaire item that required them to indicate their main field of study. Students with disabilities were enrolled in a number of disciplines across the universities. A large majority, almost 60% were enrolled in education, while a good number, (about 23 %) were enrolled in social sciences and humanities. This is consistent with the responses from the students' focus groups where they reported that, usually, they were not admitted to their programs of choice in spite of the fact that they met the minimum requirements for those courses. Instead, there was a tendency for JAB to admit them to education and other social science courses and the humanities, though their interests were diverse. The number enrolled in the prestigious fields such as law, engineering and science in general is notably negligible. Low enrolment in some fields could be due to lack of accommodations as illustrated by a student with orthopedic impairment in C who reported he had been enrolled in medicine at University B but due to disability related challenges, he had to drop the course and

enroll into a less rigorous one. He opted to enroll in Information Technology, which, he explained: "requires fewer hours of standing" (C, Ph, FGD).

From the foregoing, it appears that SWDs are often denied opportunity to pursue degree programs of their interest despite the existence of the affirmative action policy. Moreover, these students are not actively recruited to Public universities. This may explain, partly, the reason for the low enrolment of this category of learners in the institutions of higher learning.

4.6.2 Accessibility of Programs

Accessibility of university programs was discussed at length in student focus groups. Across the universities, the students cited that they were not admitted to the university at the same time with their non-disabled peers. They had to wait for some months before receiving letters of admission. The students said that JAB did not give them explanations for the delay in admissions. The students reported that when finally they received the letters, these letters did not specify what degree programs they had been admitted to and on inquiry from JAB, they were told that they would be offered degree programs of their choice once they reported in the respective institutions. They however cited that this did not turn out to be the case since the universities declined to offer them their preferred programs on reporting. In some cases the programs were not offered in some of the universities. One of the respondents made the following remark with regard to University A:

They sent us letters of admission long after the non-disabled students had received theirs. Like in my case, I had to visit the JAB offices to find out why I had not received a letter of admission after waiting at home for a long time. Nevertheless, they told me that I should go back home and wait for the letter, as they would be sending it soon. It was however another long period of waiting. I was getting very anxious. Finally I received the letter, but to a course I had not applied for. I really felt disappointed (V6, FGD).

A student in University C who had a similar experience corroborated this:

I waited, waited and waited for the admission letter but I did not receive it until long after the other students had received theirs. As if that was not enough, the letter did not specify the degree course I had been admitted to. On consulting JAB, they told me to just report to the university and I will be offered the degree of my choice. However, this did not happen since during registration I was informed that the course of my interest was not offered in this university. I was utterly disappointed. I therefore had to settle for a different course, one that I had absolutely no interest in. I did this because I felt the process of inter-university transfer would be cost me too much in terms of time and cost (CP, FGD).

These responses are reflected in figure 4.6 above that shows fields of study of the students. The responses from these students raise a critical question as to whether JAB carries out its mandate of ensuring fairness in university admissions. It appears that SWDs are not afforded opportunity to pursue programs of their choice; rather, they are pushed into any course that is available at a given time, after their non-disabled peers have been granted the opportunity to take courses of their choice.

A physically impaired student in University C felt that some units would be more accessible for SWDs if taught online since they would not have to travel long distances to the lecture halls, rather, they would undertake the courses from the comfort of their sofa sets thus reducing the strain and expenses involved in traveling to and from campus to attend face-to –face lectures.

When asked the question: “What are the incentives for your university to recruit students with disabilities?” most of the faculty said they were not aware while the administrators indicated that performance contracting for Vice-Chancellors with the Ministry of Education was the main incentive for the universities to recruit SWDs in the higher education institutions.

4.6.3 The Registration Process

In all the three universities, no structured assistance was available for the students during registration. The reaction of the students in describing this process was largely negative

This was a response from a physically handicapped student from University A:

...I came late to school, so I delayed in registration of my units. I came on Friday and started on that task of registering units on Monday. As I went through the process, I was very annoyed with what I saw. I went to computer center. One of the ladies there was ready to assist me with the registration. I wanted to register for six units. I successfully registered for five. I was told the sixth one that I wanted to register for was a pre-requisite. I therefore needed to consult the offering department. So I went there but I was also referred to another office, which I did. Here people spoke very badly. This office did not also sort out my registration issue. I was sent back to the first department. Registration of my unit has taken one month. It was resolved one week later. One week later! I had given up! I had written a withdrawing letter. My roommate is the one who persuaded me not submit it; because I was very upset, go here, go there, go to the registrar aai...i! So I think they should do something because ...like I remember that time when we went to computer center I was with my roommate and two visually impaired students. There was a girl in front of us so ... she said to my roommate, if you have decided to help them, why can't you queue for them? She talked rudely... yes, rudely...until my roommate was about to slap her. So a security man came and rescued the girl ... (laughter) (P6).

On the same issue of unit registration, a deaf student narrated his experience:

I had to visit many offices and stand in long queues for long hours. I did not experience communication challenges because as I stated earlier, there was one person willing to help me and still does up to today, the class representative. There was no interpreter for me (A, SSI, kd3).

In University C, a student on wheelchair said:

...But they exempted me from queuing; but the services were slow. So if more students on wheelchair required the same service at that particular time, we would still have to wait long hours to be served. The level of efficiency was very low. They should have provided separate registration for persons with disabilities. Imagine, if it took me a whole day to register, how long would it have taken if we were three students on the wheelchairs? It would probably have taken several days, so I think they should provide a separate registration for students living with disabilities (FGD, Jp2).

However, in University B students cited positive experiences as indicated by a student with albinism: "... When I arrived here at the university, I didn't have to queue, ... within ten minutes I was through with my registration" (B, alb1). The student explained, "It was not specific people who will assist people with disability but there was this church organization, the church chapel that provided their members for guiding and directing us (Ua1).

From the students' experiences cited in the foregoing, it appears that across the universities, there are no prior arrangements to assist SWDs through the registration process. As such these students have to struggle through, sometimes getting into friction with the non-disabled who feel they should go through the process in a "regular" manner. Regular in this case means standing in long queues for long hours since the services are usually very slow as has been indicated by the respondents. It also appears that SWDs rely almost wholly on fellow student volunteers for assistance throughout this process.

4.6.4 Campus Orientation

All the three universities conducted a general campus orientation for all students, but none specifically for SWDs. Students in the universities were disappointed (A, B, FGD). The students mentioned that there was a special needs desk manned by Kenyatta University Disabled Students Association (KUDSA) but it did not offer much help in addressing the needs of SWDs. They also cited that the director addressed the general student body for a few minutes during the orientation. They however cited that the only useful information they obtained was that the directorate exists but there was lack of useful detail. A student who attended the orientation in University A had this to say about the address by an officer from the office of disability services:

...It was more of an introduction; like we have an office, it's called this; you're welcome; these are our roles. But you see we did not get to meet them during the orientation. They just addressed us from the podium, with a microphone; there is that barrier. We did not get to know them one-on-one. From up there I would be afraid to approach them because I don't know what type of a person you are (FGD, Ph8).

Some students cited that they never got to learn about the orientation; hence they were not able to attend. One student said:

“In terms of orientation, I was not even aware there was any. I came to know later that there was an orientation” (C, Jp2/c). A deaf student in the school-based program in A also indicated that she was not aware of any orientation for students. Asked whether there was an orientation for the students in her program she said: “May be it was there, I did not go” (SSI, Kd1).

Some deaf students said though they attended the general orientation for “freshers”, they did not benefit from it in any way since interpreters were not provided (A, SSI, Kd4). On the orientation issue, a student in University C who has mobility challenges had this to say about the orientation exercise:

... The movement ...to go from one place to another to be shown the lab and all around was hectic. They didn't consider us because for some of us it would have been more useful if we had been given brochures showing where the facilities are. That way, in our own way, we could reach those facilities. Like in our class we rushed to a point down there ...to ...it is a workshop which is quite a long way ...and for me I cannot walk for more than 500 meters, even 200 meters ...so it was quite hectic to move to that... I had to force myself...I usually use “Bodabodas” to travel around campus (C, Jph1).

4.6.5 Course Instruction and Testing

Majority of the students, across the three universities largely cited negative experiences with course instruction. A student who is deaf related his experience:

Introduction to the units are done that is, objectives, course outlines, etc. But most lecturers do not seem to care whether there are students with disabilities or not or how these students get notes. Apart from a few who go to making sure we have notes or provide course books i.e. ODEL modules, others do not seem to care. The other students

are the ones who seem to help us, for example in obtaining notes, assignments, CAT dates, any other information for example, make-up classes. It is mostly students who inform us. Interpreters are not available in the university or I may not be aware of them if there are any. Note takers are also not provided. We just copy notes from any student since most of them are good-natured. Television or any other screen has never been used during lectures so captioning is not available (A, SSI, Ad4).

The same student also gave an account regarding his experiences with course assignments:

We are given assignments every week but the sources of information in the library are few and not always readily available for the homework. In the Internet the information is scattered so we are forced to dig deep i.e. use Internet only and not library books. The lecturers keep giving us assignments that can only be tackled using information from the Internet only. As for the classmates they seem to do the very same thing of visiting websites only. The lecturers keep giving assignments that cannot be found on the notes she dictates but only on the Internet. As for the library books they are not known to have the information given by the lecturer (A, SSI, Ad4).

Another deaf student detailed her experience with instruction as follows:

During phonology classes, the teacher enters class, touches my nose, mouth, throat but we understand nothing. The lecturers are willing to help us with phonology but they find it hard. Stress, pitch, intonation and syllables are challenging because they all require voicing. Dr. X could give us remedial lessons when she lived in the university. I inquired whether I could have these areas waived but I was informed these are cores hence they cannot be waived. Other lecturers too give us assistance. Oral literature is also a core unit where we are required to learn about poems and riddles. We are also supposed to carry oral research in this unit. We find this a big problem because we must audio record ourselves during these assignments. Dr. X helps. She substitutes questions that require oral responses with written assignments. Oral literature has been removed from high school curriculum for the deaf. Lecturers teach us without informing the class the books they are using. I suggested that they should let the hearing impaired students know the reference books in advance (A, d).

From the above accounts by the respondents, it is clear that lecturers did not consider the fact that there could be learners who do not acquire knowledge through the traditional teaching strategies. Some of the students needed sign interpretation of oral information and vice versa in order to benefit from the lectures while others would have benefited more if the course content were adjusted to meet their special learning needs. For instance, in the above excerpt the student

means that the lecturer, in assisting them to learn the correct pronunciation of words had to touch their speech organs so they could know where articulation occurs. This was necessary because the deaf students could not follow oral instructions. However, when they feel the vibrations at the organs of speech, they are able to get some idea about how various sounds are made. It therefore appears that this lecturer was very concerned in their learning and was very willing to assist the deaf students in acquisition of the communication skills. He however lacked the knowledge and skills in teaching the deaf in this area. It also appears that the students, though they appreciated the lecturer's effort in teaching them, found the experience quite frustrating since they did not benefit much from the teaching strategy that the lecturer used to teach this particular content.

Blind students also reported that they faced great challenges following lectures citing reasons like high pace of the lecture, failure of lecturers to verbalize the content on the board and PowerPoint presentations and the failing to explain the what diagrams and pictures displayed were about. For instance, one of them said:

The lecturers talk too fast for us to make notes during the lectures. They also keep referring to the mathematical tables on the board without giving the details. They don't read the figures for us to write so if it is a trend we are supposed to recognize it becomes impossible. Then they keep saying, "as you can see on my right"....and on my left...." Surely we don't see. Therefore at the end of the lecture we feel very frustrated that we understood almost nothing from the lectures. Day- in day –out this we enter and leave lecture rooms having learned almost nothing. It becomes even more worrying when examinations approach and we don't have notes to refer to during revision. So facing an examination causes us a lot of anxiety (A, V6, FGD).

The above accounts by the respondents illustrate some of the barriers SWDs encounter at higher learning. Clearly, the learning terrain sounds very difficult for these students. This is a clear

indication that lecturers still use the traditional teaching strategies that do not put into consideration the diverse student body in the Public Universities.

Faculty members corroborate the student's responses in the foregoing across the university who reported that they were not able to handle students with disabilities in their classroom. Some of these faculty members indicated that they were willing to assist this category of learners but they lacked requisite knowledge and skills. For instance, in an interview with one of the members who teaches a statistics-based course in University A, he had the following to say:

The blind students approached me after a lecture and informed me that they had not followed the lecture that I had just concluded. I was very shocked because in self-evaluation I felt that I had effectively delivered that lecture. When I asked them why they were unable to follow the lesson, they said that it was very fast paced and that they could not follow the information presented in the tables that I had drawn on the board. I therefore offered to assist them catch up with the classmates out of class. However, I faced enormous challenges basically because the course content was not in Braille nor did I have any skills in writing or reading Braille materials. At this point I realized how handicapped I was. It was very frustrating to both the students and I a sense of guilt struck me at the realization that these students might not learn much in this course by the end of the semester. The fact that their performance in the examinations might be consequently negatively impacted, made me feel very helpless (A, FSSI).

When the researcher gave this lecturer an opportunity to suggest measures that could be put in place to ameliorate the existing situation he said:

“...At least every lecturer in the university should be trained in the basic Braille skills to enable us assist these students”.

The suggestion put forward by this lecturer is consistent with the responses of the students in FGD that the university faculty should be trained in teaching SWDs.

With regard to examinations blind students reported that they faced difficulties reading statistics questions due to the nature of the items. They said sometimes the tables are too long and often

overflowed to the next page, which made them difficult to read and interpret as they were forced to keep turning the pages. This back and forth action made them unable to grasp and remember the figure in the table, especially where the question required them to identify a pattern or trend.

One of the students remarked:

It becomes very difficult to move up and down the long tables. It is even worse when the table continues to the next page. Turning back and forth makes you forget what you had read in the previous page. It is quite challenging to interpret the figure since unlike the sighted classmates; we cannot see the figures at a glance. We have to first touch them on the question paper, one by one, and find the connection. This takes a lot of time. This would be easier with a few figures, but when you have many, it is almost impossible. We therefore often do not attempt this question, which is compulsory in some units, or we just make a miserable attempt at it. That is why we often score poor grades in such papers. We feel very disadvantaged, even with the extra 30 minutes (A, V6, FGD).

The above remarks indicate that students face challenges in accessing course content and examinations due to lack of course content in preferred alternative formats and deficiency amongst the faculty in knowledge and skills necessary to accommodate the needs of these learners.

Furthermore, the positive experiences of the learners were determined greatly by the level of disability awareness and individual's knowledge as opposed to organizational guidelines and supplies, which varied greatly amongst the Public Universities. Thus, as Tinklin, Ridell, and Wilson concluded, although there were some accomplishments in providing supports to SWDs, there was need for improvement in various as far as transitioning from the lower to higher level of education, orientation and course instruction are concerned. Moreover there was need to align these with systematized strategies to assist SWDs at the policy and practice levels within higher learning. Retention is of great concern for SWDs as earlier indicated since this is a group at high

risk of dropping out, or as Mugo citing Groce (2004, p.3) puts it, falling through the cracks” (2010, p. 10). This finding is consistent with the findings by Tinklin and Hall (1999) in their study on the experiences of disabled students in Scotland, that although there were some indications of betterment in giving support to SWDs, obstacles still existed in Higher learning, the physical infrastructure, getting information in preferred formats and lack of disability awareness amongst personnel.

4.6.6 Adaptive Aids and Adaptations in Teaching Strategies

Students were asked whether lack of accommodations had ever impacted seriously on their ability to pursue a postsecondary education. An overwhelming majority responded that such was the case. In some cases lack of accommodation by lectures was cited as a main reason, but in most cases it was a combination of situations for instance, lack of accommodation and problems with accessibility, that caused the student to consider withdrawing from courses and/or programs. Many students commented on the lowered grades they had obtained in comparison to their non-disabled peers as a result of lack of accommodation.

In the focus groups, students offered suggestions that might result in an improvement to services available from the service providers at the university they attended. The most common suggestion involved the provision of additional funding in order to hire more staff, which might in turn, according to the students, increase the speed with which services could be procured and the number of services that could be made available.

4.6.7 Financial Aid

Financial aid is an important part in attending college. Students across the three participating universities indicated that they were experiencing serious financial challenges and this was impacting negatively on their academic endeavors. For instance, towards the end of an interview with one of the participants, the participant seemed anxious. The researcher asked him whether he wished to have a break. But he said “NO”. Then he told the researcher:

I need to go and prepare to go to my rural home before it gets too late. I have to take an academic leave because I cannot raise fees for the semester. At the beginning of the semester, I paid the little that my mother could raise. She is a single parent and struggles to see that I get school fees. She tills the land in our farm in the village and sells some of the little produce that she gets (C, sd).

The researcher then asked him whether he receives loan from HELB and he said “No”. The researcher further asked him whether he receives educational bursary, to which he also replied “No”. When asked whether his mother had raised the amount needed to clear the fee balance he said:

“She does not have any money. As a matter of fact, I don’t know what to do. I know I will not come back this semester.” The researcher then asked him what that would mean to his forthcoming exams and he said, “I have to wait until such a time that those units are offered again so that I can take them”.

The researcher then sought to know whether the work he had put on those units that far would be considered when he resumes his studies and he said: “No, I have to start all over again”. The researcher then asked him whether he had talked to the administration about his financial challenges, and he said:

“Yes, but they have advised me to take an academic leave and come back when I get money to pay school fees”.

The above account by C, sd is consistent with the small number of respondents who indicated that they received financial aid in the student survey.

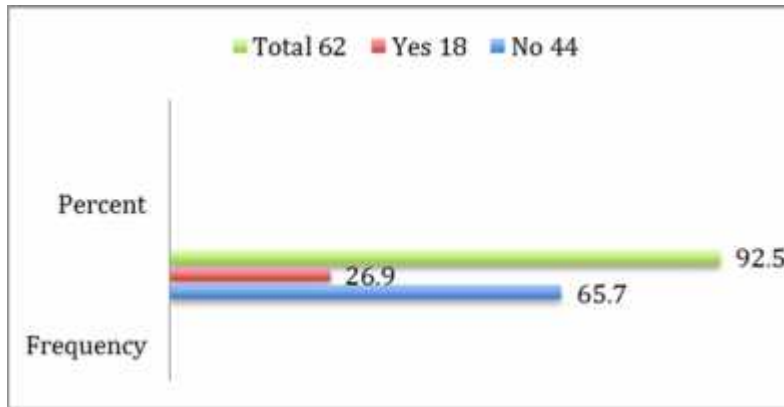


Figure 4.6: Frequency (%) Receiving Financial Aid

In the current study, only a small proportion, (18%) of the respondents reported that they received financial aid to fund their education at the university. As Figure 4.6 show, the rest reported not receiving any financial assistance. This is consistent with the responses from student focus groups that they faced serious financial challenges at the university, most of them reporting that they come from poor social- economic backgrounds and that they were currently not having a job. It is also a confirmation of the responses from the Disability Services Survey that the universities did not offer financial assistance to the SWDs.

The foregoing supports students' responses that they faced serious financial constraints. The students in other disability categories also said that they were unable to complete examinations during the allocated time, since only the visually impaired get extra time on exams. The students also indicated that they were unable to know the specific offices that could sort out their problems related to their disabilities and had to move from one office to another seeking assistance (A, B, C, FGDs).

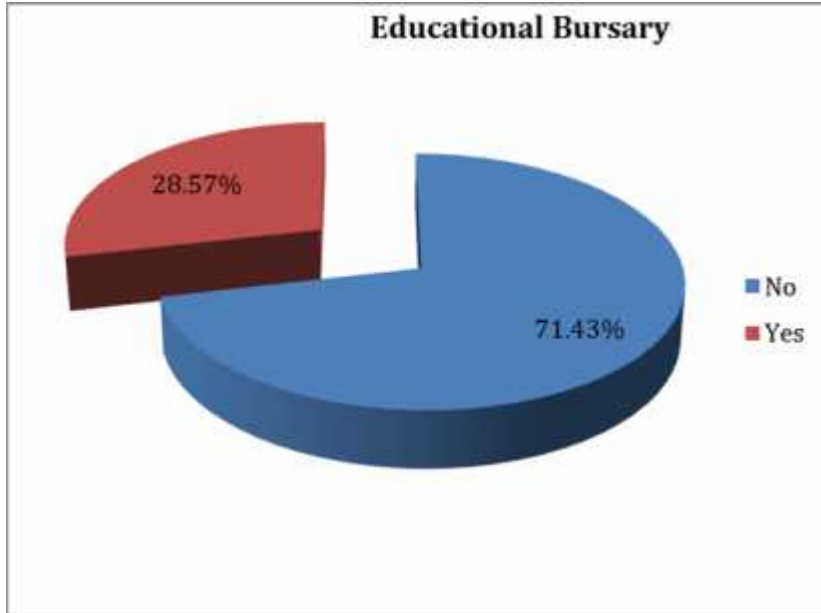


Figure 4.7: Frequency (%) Receiving Education Bursary

As per the data presented in Figure 4.7, it was evident that only 28.27% which presents less than a half of the respondents received bursary. The majority of the respondents who comprised of 71.43% stated that they did not receive bursary at all. The implication of this shows how SWDs are disadvantaged in relation to financial resources, which ultimately may affect their retention and progression in the universities.

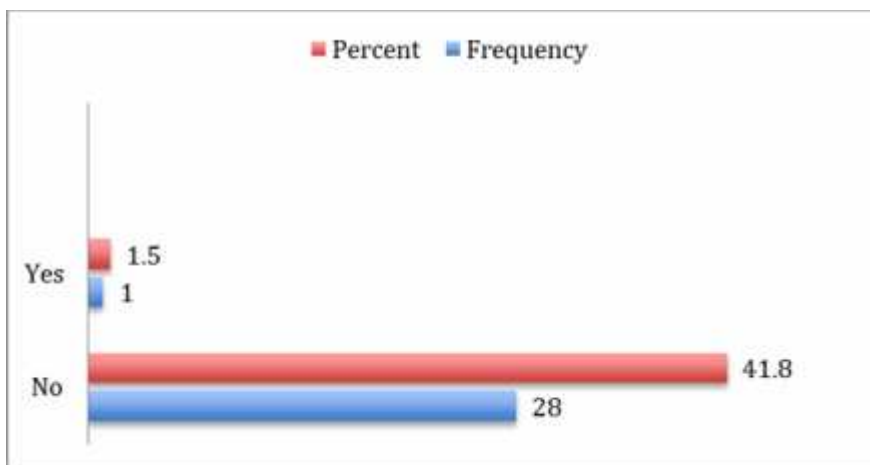


Figure 4.8: Frequency (%) Receive Financial Aid from University

Figure 4.8 shows that of all the 28 participants who responded to the survey question, “Do you receive financial aid from the university?” only one reported in the affirmative. This contradicts University A’s indication that it provided financial assistance to students that belong to the disadvantaged groups. In the website of University A’S Financial Aid office, in the frequently asked questions, there is a question as to whether one could apply for the fund even though not an orphan but is very needy and the answer is that one can apply for the Scholarship since it is actually meant for needy students (Kenyatta University, 2014). Thus a SWD who is needy qualifies to apply for this scholarship.

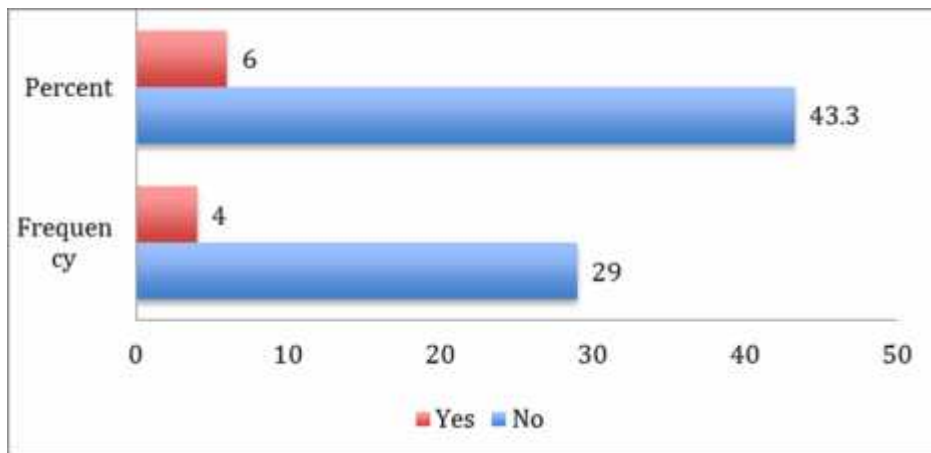


Figure 4.9: Frequency (%) Receiving Financial aid from NCPWDS

From Figure 4.9 it can be seen that of all the 33 participants who responded to the survey question “Do you receive financial aid from the NCPWDS?” only a negligible number, (6.0%), indicated receiving assistance. This confirms the participants’ responses in the focus groups and interviews that most of them never received any financial assistance from the NCPWDS, with the majority reporting that they were not aware that the fund existed.

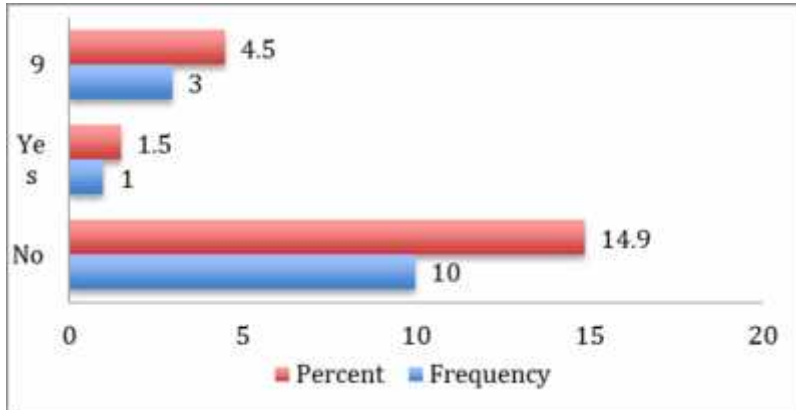


Figure 4.10: Financial Aid from NCPWDS Discontinued

Figure 4.10 indicate that only one student, who received financial aid from the NCPWDS, lost it at one time or the other. This is an indication that the funding is unreliable, a confirmation of the students' responses in the focus groups.

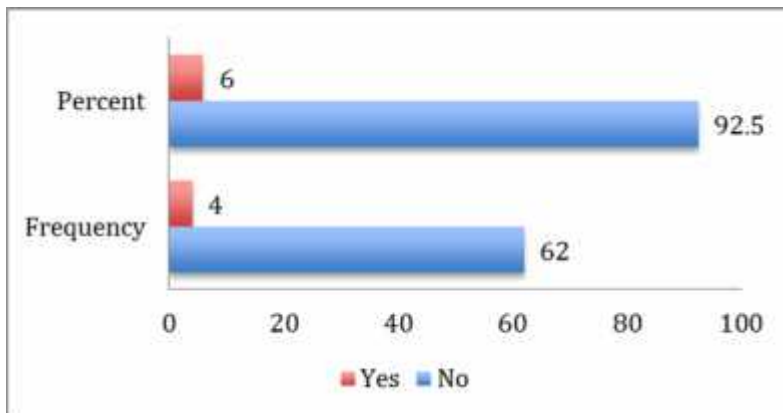


Figure 4.11: Frequency (%) Employment

An overwhelming majority of the respondents did not have a job as Figure 4.11 indicates. As such, they were not able to raise any funds that could ease their financial challenges at the university. The few that indicated that they had a job were practicing teachers who attended the school-based program.

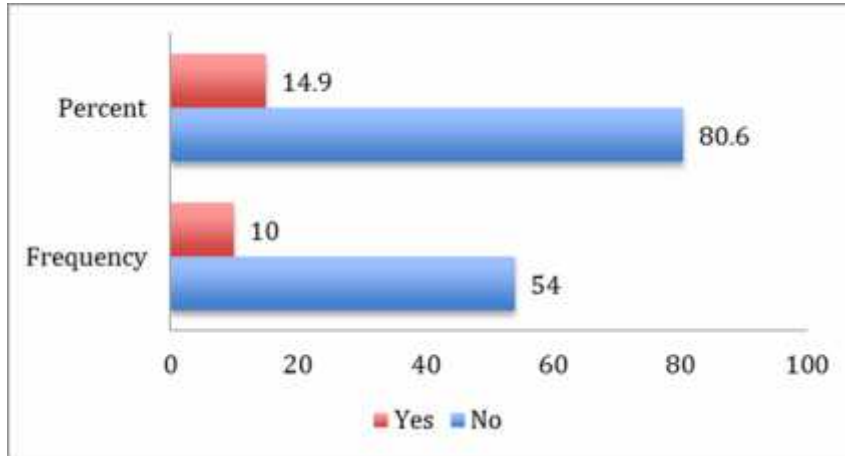


Figure 4.12: Frequency (%) Financial Independence

As figure 4.12 indicates, majority of the students who responded to the questionnaire indicated that they are not financially independent. This implies that they depend on other people to meet their financial needs. This was reported in the focus groups where the students said they have to depend on their parents and other relatives, most of whom are living below poverty line, to get little funds to subsidize their financial needs at the university.

Across the three universities, only 29 % of the 62 students who answered the survey question: “Do you receive financial aid?” reported that they received financial aid while 70 % reported that they did not receive any. Out of 63 students who responded to the question “Do you receive education bursary, an overwhelming majority, 68 %, reported that they did not receive any while only 27.3% reported receiving some bursary at one time or the other. Students indicated that the awarding criteria for the HELB bursaries and financial aid from other granting agencies such as the NCPWDS were not clear, pointing out that those students who were more needy either were not granted any bursaries or got less than those who were less needy (A, FGD). The most commonly cited source of finances for the students in the focus groups was HELB loan, which

most of the students reported that they had received. However, they mentioned that the amount that they received was inadequate considering that they needed to pay school fees and buy specialized materials and equipment that they require to successfully undertake their studies. This is necessitated, by their disabilities. They also indicated that the application process for these loans was cumbersome and the awarding of the loans was unfair (A, B, FGD). The following is an excerpt from a FGD that illustrates the views of SWDs on the funding of their university education:

There is this fund from National Council, am sorry, am sorry I forgot that to mention earlier. I should mention; we, we... were given, I think last year first semester. ...Because it is not something guaranteed maybe that's why I forgot to mention. We received the amount but this amount was very little. They however did not consider whether a student was self-sponsored or a regular student. The amount of school fees that students who join university through Joint Admissions Board (JAB) pay and the amount self sponsored students pay are different. But my concern is that that amount is very little, considering the total amount of school fees we have to pay and the amount that we require for upkeep(C, FGD, Jph2).

This student went on to further explain that he had received Kshs. 30,000.00 from the NCPWDS for the academic year. He went to further explain that there were delays in disbursement of the amounts awarded to the students. He raised an issue with the criteria used to award the aid, pointing out that:

The criteria of allocating this fund is not appropriate to me because when I went to finance office to pay fees I inquired what amount of money other beneficiaries had received from the NCPWDS and I was informed that two students were given Kshs. 30,000 each but some other students from the arid parts of the country were given seventy thousand (Kshs.70, 000) each.

The students felt that the National Council was unfair in awarding of the financial aid because, as he put it:

“I was surprised to learn that these students, who did not even appear to have any disability, and were even living in an up market estate in Nairobi, were awarded more than twice the amount that we, with even visible disabilities received”.

The student therefore suggested that the NCPWDS should consider the type of disability and extent of disability in awarding the aid.

What Jph2 is saying in the foregoing is that he is not clear about the criteria used by NCPWDS to award financial aid to SWDs. He feels that the council should give due consideration to the needs of individual students, which are largely dictated by the type and extent of disability. The student, (C, Jph2), continued to explain that programming in the university where regular annual semesters are no longer adhered to further exacerbates his financial needs since students were subjected to compulsory crash programs, which they were unable to fund because HELB only granted them loans to finance regular semesters, that is first and second semesters in a given academic year. Reflecting deeply on this, which he referred to as “financially hectic situation”

He said:

“... if the aid that is provided by the NCPWDS would be increased and be guaranteed, the financial burden on SWDs would be greatly reduced,”(C, FGD, Jp2).

From the above remarks, it appears that SWDs in Public Universities keep groping in darkness hoping that they would find a source of financial aid that would guarantee them funding of their education to completion. This seemed to be a really major concern for all the students. The study also found that Kenya does not have a welfare system to support sectors of the population who are less advantaged such as those who are unemployed, aged or have disabilities (DRPI, 2007).

4.6.8 Academic Requirements

Across the universities, substitutions for degree requirements were hardly reported. However, in University A, a few students reported receiving unit waivers and assignment substitution (A,

FGD, SS). Students in University A reported that their exams were adapted in certain units, for instance, Communication Skills was adapted for visually impaired students (SSI) and unit waivers granted (A, FGD). Nevertheless, a student on a wheelchair, in the same university, was forced to miss an excursion because of inaccessible transport. With reference to fieldwork, she explained the situation thus:

...Like we had one, we were recording our video, music video, so in my class we had two groups, one doing a skit and the other one a music script. So I was in the music script. My classmates decided they were going to record in Kahawa Sukari. So they said each one is going to provide for their own transport. So from what they told me the place is not friendly, “yaani” (that is) the road is rough. So I gave up. I did not go. I did not go for the excursion, but because video shooting was done here in campus, I participated in the shooting. (A, P6, FGD).

This account by p6 reveals that some class assignments are challenging for students on wheelchair to undertake, not because of their disability, but due to lack of necessary services such as accessible transportation. Consequently, these students miss out on important learning opportunities.

Another student reported that she was not able to participate in science laboratory activities effectively since the classes take long hours with too many tasks to be done, and this in laboratories where the tables are too high for her to reach from a wheelchair. She explained that in the high school that she had attended, she was able to engage in all the laboratory activities with the rest of the class. However, that was no longer the case since she reported in University A. She continued to explain that in the high school, a special table was provided for her from which she could manipulate apparatus and specimens comfortably, and be able to record observations. There was also staff to assist her whenever necessary. She explained her dismay at

the realization that during laboratory activities she had to remain seated on her wheelchair while her classmates were actively engaged in learning activities. She put it thus:

I was really shocked that everybody expected me to remain on the wheelchair and just watch as they conducted the experiments. To everyone this appeared okay!

She went on to further explain the nature of the tasks and the learning environment:

...They're very strenuous (*the tasks*)...doing two practicals (hands on tasks) in one session. So they set up things on one side, and other things on the other side. And then maybe you need to use something that will require a socket, so maybe the socket is on the other side of the room; so what happens is that movement you're ...you know you're going to read...like spectrometer, ...then you have to move to water bath at another site. So everything is usually all over the place. Most of the time I have to sit ...catch my breath then ...see what others are doing ... the lessons are really rushed (A, FGD Ph4).

The remarks of ph4 above highlight the structuring of lessons in her science classes, which signify lack of accommodation for her disability. The furniture does not allow her to conduct the experiments nor does the pacing of the lesson. Furthermore, the attitude of the instructor and the classmates did not help the situation because they seemed to think that it was not necessary for this student to engage actively in the classroom activities. What is of great concern also is the fact that Ph4 seemed to have resigned to fate, she said:

“Anyway, I understand when my classmates conduct the experiments very fast. They have to do so because time is always limited with too much work to do and therefore they have to rush through so as to complete the exercise and submit reports to the lecturer for grading.

From the above remarks by ph4, it appears that she had accepted this, that is, being a passive learner, as the norm in a university laboratory.

4.6.9 Accommodation Procedures

Accommodation involves adaptation in order to ensure that the needs of SWDs are adequately taken care of. Specifically, course accommodations for SWDs entail modification of materials,

or testing procedures, as the goal, so as to assist this category of learners to achieve their academic goals. This ought to be done in a manner that the standards of the academic program are not lowered and the student is not afforded unfair advantage. Across the universities, some students cited speaking to the lecturers directly in requesting for accommodation(s) and a few lecturers provided accommodations if they thought a student required them. While some lecturers provided the requested accommodations, students in two of the studied universities cited that they had negative experiences with a number of lecturers (A, C). A student who has a physical disability explained that she always made an effort to make notes during lectures, but she could only do so for a short period as she got tired quickly, especially when a lecture was fast-paced. She had therefore developed strategies in which to get notes, one of them was to request for classmates' notes after class which she would then copy later. She would also request for hard copies of lecture notes from some lecturers. She described her experience as follows:

I have three lecturers who realized that I have that problem so they asked for my e-mail address, which I gave them and they send me the notes through this address. Then not all lecturers will do that... some are harsh, wee...(A, FGD, P6).

Another student narrated what he had to go through to have his classes re-located from an upper floor to ground floor where he could access the room on a wheelchair since there were neither ramps nor lifts or elevators on the building:

I had most of my classes scheduled in the upper floor of a building. I could not get to the classroom due to lack of ramps and the building had no lifts. So I requested the lecturer to have this class relocated to the ground floor to enable me attend the lessons. However, he declined, saying that it was not part of his responsibilities to allocate venues for classes. He said that was the responsibility of the person in charge of drawing the timetable. I decided to request the person in charge of making class schedules to relocate my classes to ground floor of the buildings. But he also said that was not possible because it will affect a lot of other classes. At this point I felt very frustrated and that like no one understood my needs, and if they did, they did not care. I felt very infuriated and went

back to the lecturer. I entered his office and looked at the timetable. I could see all that was required was to switch the venues for his class with that of another. I took a pen and switched the venues by myself. Then I left the office. From that day the changes were followed and so I was able to attend my classes in the ground floor(C, FGD, JP2)).

At University B, visually impaired students also had similar experiences. They reported that they had visited the Office of the Dean several times to request for Braille machines and each time they would be promised that the machines will be availed in a short while. However, it was now at the middle of the semester when tests were being administered and they had not received the machines yet. Consequently, they were not able to take the exams together with their non-disabled counterparts.

A blind student explained they had been promised that the Braille machines would be provided at the beginning of the semester, just after they had reported in the university. However, they had not yet received the machines, almost two months since reporting to the university. He explained the situation:

Now we are in the middle of the semester and we have not received the machines yet. We just attend lectures but we cannot take notes, yet lecturers are now administering tests. How are we expected to prepare effectively for these tests without notes to make reference? What bothers us even more is, we cannot take the test now, together with our non-disabled classmates. In fact, we are really anxious. They say they will give us tests later, once the machines have arrived. This is causing us a lot of anxiety. Why should we take different exams from the rest of the students? When will the Braille machines ever arrive? We asked the Dean whether they arrived the other day and he said they have just awarded a tender for supply. A lot of questions have crossed our minds since our arrival in this university, the one known to be the best university in the country. Did the university expect us at all? If they did, why didn't the university purchase these Braille machines in advance? We are just here without an idea about what to do next without the piece of equipment on which we really almost fully depend to be able to pursue our studies.

It appears that the blind students in university B had not yet settled to learning, one and half months into the semester, whereas the non-disabled peers were fully engaged in learning. Lecturers and other members of staff who refuse to make the necessary adjustments should be held to account and appropriate correctional measures should be determined (West et al, 1993).

Students cited that they are forced by their financial status to take more units in a given semester than they could effectively handle in order to reduce the period for completing their programs and ultimately reduce expenses on the program. They were however concerned that their academic performance is affected negatively whenever they have to take more units than they felt competent to handle. They said if they had more funding they would take fewer units per semester, as this would be more comfortable for them to handle. The students also said they could not take fewer units per semester than the minimum set by the universities, as this is not allowed by the university policy. Moreover, doing so would automatically disqualify them for HELB funding later since their program would extend beyond four years that they were supposed to complete the program.

University A had a draft policy, and the researcher was able to obtain a copy. However, most of the students were not aware about the existence of the document, as they were not involved in formulating it. However, a representative of the students was involved but the students felt a wider representation was necessary since one student with a particular disability may not be in a position to effectively articulate the needs of a group of students with diverse disabilities. They suggested that student panels would have been more appropriate for involving the students in the policy making process and this way they would feel a sense of ownership of the document. In all

the three universities, students were not aware of procedures for requesting for accommodations and actually all of them had not heard the word used before in this context until the time of this research.

In University A, students cited that they were provided with accommodations such as Braille machines, exams in Braille and large print. Some talking books were also available, courtesy of volunteer readers. However, lecture notes and books were hardly available in these formats and the blind students had to rely largely on sighted students to read for them when doing assignments. Actually, the researcher did a spot check of the university bookshops to find out whether they stocked reading materials in alternative formats other than print. Asked the question “Do you have the print materials in alternative format?” The booksellers looked surprised. The researcher asked them whether they have ever considered stocking them for the visually impaired customers but they smiled, and said that the idea had never occurred in their minds. This means the visually impaired students and other students who require instructional materials in other formats do not find them in the university bookshops. They also cited unavailability of these materials in bookshops outside the universities. This amounts to a disadvantage for this group of learners compared to their non-disabled counterparts who easily obtain the materials from the university bookshops.

The students appreciated that there was also a Braille resource center where they were issued with Braille machines for use, and that examinations are brailled and transcribed. However, the visually impaired FGD responses on the topic highlighted the gap sometimes found between accommodations and effectiveness of accommodations. For example, they pointed out that the

Braille machines were inadequate and that the available ones often broke down while using them in class, and even during examinations. For example, a student with visual impairment said:

I think the university should purchase Braille note takers instead of Braille machines, which have become outdated and usually make a lot of noise in class. Sometimes they make so much noise in class that some people don't want to sit near you because they know if they do, they won't be able to hear the lecturer clearly. The Braille note taker doesn't make any noise and it is very comfortable to use since it is not very heavy and its price is the same as that of the Braille machine, or even cheaper (A,V10, FGD).

The students with visual impairments also suggested that the number of Braille machines should be increased and that regular servicing should be done on them to ensure efficiency.

The dissatisfaction with the accommodations provided is also evident from the responses by students in survey, Likert Scale items as shown in table 4.12 and 4.13 below.

Table 4.12 Frequency (%) Accommodation Selection Issues Opinion

I am satisfied...	N/A (1)	Strongly Disagree (2)	Disagree (3)	Undecided (4)	Agree (5)	Strongly Agree (6)	Weighted Average
....with the manner in which my disability is discussed with me.	3 (7.9%)	5 (13.2%)	6 (15.8%)	2 (5.3%)	17 (44.7%)	5 (13.2%)	4.05
....that my disability related information is kept confidential.	4 (10.5%)	5 (13.2%)	4 (10.5%)	2 (5.3%)	14 (36.8%)	11 (28.9%)	4.47
....with the process used in selecting my accommodation.	1 (2.6%)	3 (7.9%)	7 (18.4%)	4 (10.5%)	10 (26.3%)	13 (34.2%)	4.53
....with the training I received	10 (26.3%)	3 (7.9%)	4 (10.5%)	6 (15.8%)	8 (21.1%)	7 (18.4%)	3.53

...with the effectiveness of my accommodation	0 (0.0%)	5 (13.2%)	8 (21.1%)	3 (7.9%)	15 (39.5%)	7 (18.4%)	4.29
...with the accommodation provide for me	1 (2.6%)	3 (7.9%)	7 (18.4%)	2 (5.3%)	17 (44.7%)	10 (26.3%)	4.76

Source: Students Questionnaire

Table 4.12 shows that only 10 (26.3%) out of the 38 students who responded to the Likert item that asked them to indicate their satisfaction with the “Process in selecting an accommodation for me” agreed while only 13 (34.2%) of them strongly agreed. Seven respondents (18.4%) disagreed while 3 (7.9%) strongly disagreed and 4 (10.5%) were undecided. This indicates that a significant number of the students were dissatisfied with the way accommodations are selected for them. It is also important to note that a large number of students did not respond to this item. This is because majority of these were not provided with any accommodation during the time these data were collected. Actually, all the deaf/hard of hearing students did not respond to this item, since, although they were in session, they did not have any accommodations. This was confirmed during one-on one interview with them. Only students who had an accommodation at the time of data collection were qualified to respond to subsequent items in that section.

It is worth noting that majority of the students who agreed and strongly agreed on the said item are those who were blind/ visually impaired. The reason could be that majority of them indicated receiving Braille machines and because they have been using that accommodation since they were in high school, it worked for them even at the university.

Overall, a small trend was observed for students with visual impairments to report greater satisfaction than the students with other disabilities. Out of 53 students who responded to Likert

Scale items on accommodation satisfaction, 44% indicated that they were dissatisfied with the accommodation provided for them, while 8% were undecided and 4% indicated it was not applicable.

On satisfaction with effectiveness of the accommodation provided, of the 49 who responded to the item, 55% agreed while 33% disagreed, and 8% were undecided, 4% indicated it was not applicable. Though most students indicated satisfaction with effectiveness of accommodation provided for them, it is important to note that during the discussion, it was evident that most of the respondents were not aware of other alternatives, especially the array of assistive technology currently available in the market.

Also, it is important to note that all the eight deaf students (100%) who took the survey did not respond to the Likert Scale since they did not have any accommodations. This is also true for students in other disability categories. These results should therefore be interpreted with caution.

Another issue that was discussed is examinations. Students with visual impairments felt disappointed that they did not receive their examination grades at the same time with the rest of their course mates. A student made the following remarks regarding examinations:

But in the resource room for the transcription of the exams, something needs to be done. All the exams that I have done and have been brought to this office for transcribing have to always get delayed even after other people have received their results. I'm told to wait because the scripts haven't been transcribed, so they could be marked. Therefore there is need to upgrade the services in this office. You get missing mark before you get your mark...(A, FGD, V6).

The researcher asked V6 what he meant by "missing marks" and his response was:

“ You don’t have your marks while others have their marks on the same, same units ...if you’re a Braille user you have to wait, sometimes even for two years, like I”.

Most of the visually impaired students said the reasons they always received their examinations grades later than the rest of the students is that their scripts take time to be transcribed to enable lecturers who cannot read Braille mark them, basically due to shortage of staff in the resource center. They were also concerned that the transcriptions may not be accurate which could lead to them getting under graded and felt it would be more appropriate for their exams to be marked by staff who can read Braille. They suggested staff should be increased in the resource center to ensure their exams are transcribed and marked in time to avoid the anxiety caused by the long waiting periods.

A technical staff member who works in the disability resource room confirmed the above remarks by V6. He reported that this section is understaffed and transcription becomes overwhelming for them especially during continuous assessment periods and more so during examinations. He explained:

We find it difficult to transcribe the work in time because we are only three working here. It becomes very challenging for us especially during CATs and work during examination time is almost unmanageable. I think the university should employ more people to enable us complete the work within the expected time.

Data revealed that the studied universities did not evaluated the effectiveness of accommodations as would be expected in “best practices” in provisions for services for SWDs at higher education. Students cited that although they had declared their disabilities during application to the universities, on reporting to these universities there was no indication from the administration that they expected this group of learners in the respective institutions as evidenced by lack of

assistance during registration and lack of accommodations during orientation as mentioned in earlier sections. This was collaborated by the responses from administrator survey and interview, which indicated that the universities did not have a comprehensive structure for evaluating effectiveness of accommodations. In summary all the parameters investigated showed the following weighted averages, satisfied with the manner in which my disability is discussed with me constituted (4.05) weighted average, satisfied that my disability related information is kept confidential (4.47), satisfied with the process used in selecting my accommodation (4.53), satisfied with the training I received (3.53), satisfied with the effectiveness of my accommodation (4.29) and satisfied with the accommodation provided for me had a weighted average of (4.76).

Table 4.13 Frequency (%) for Accommodation Issues Importance Rating

Selection Issues	None (1)	Little (2)	Moderate (3)	Important (4)	Very (5)	Weighted Average
Training required	7 (18.42%)	1 (2.63%)	3 (7.89%)	7 (18.42%)	20 (52.63%)	1.87
Task Appropriateness	1 (2.63%)	2 (5.26%)	5 (13.16%)	9 (23.68)	21 (55.26%)	2.16
Cost to University	8 (21.05%)	4 (10.53%)	7 (18.42%)	4 (10.53%)	15 (39.47%)	1.92
Availability	2 (5.26%)	3 (7.89%)	2 (5.26%)	5 (13.16%)	26 (68.42%)	1.71
Ease of use	1 (2.63%)	1 (2.63%)	3 (7.89%)	12 (31.58%)	21 (55.26%)	2.26
Effectiveness	2 (5.26%)	3 (7.89%)	3 (7.89%)	6 (15.79%)	24 (63.16%)	1.84
Independence	2 (5.26%)	4 (10.53%)	5 (13.16%)	6 (15.79%)	21 (55.26%)	1.97
Used by Other Students	11 (28.95%)	4 (10.53%)	4 (10.53%)	9 (23.68%)	10 (26.32%)	2.16
Own Previous Use	5 (13.16%)	5 (13.16%)	3 (7.89%)	7 (18.42%)	18 (47.37%)	1.97
Social Acceptance	2 (5.26%)	2 (5.26%)	3 (7.89%)	7 (18.42%)	24 (63.16%)	1.89

Specific Disability	3 (7.89%)	3 (7.89%)	3 (7.89%)	3 (7.89%)	26 (68.42%)	1.61
Portability	1 (2.63%)	3 (7.89%)	4 (10.53%)	10 (26.32%)	20 (52.63%)	2.21

The information on Table 4.13 shows different weighted averages as per the different parameters namely training required with a weighted average of (1.87), task appropriateness (2.16), cost to university (1.92), availability (1.71), ease of use (2.26), effectiveness (1.84), independence (1.97), used by other students (2.16), own previous use (1.97), social acceptance (1.89), specific disability (1.61) and portability with a weighted average of (2.21).

4.6.10 Technological Environment

Across the universities, there is a lack of qualified individuals who understand adaptive technologies and can train others on how to use it. Students in University A appreciated that there was a special needs section set aside in the library. They cited availability of assistive devices such as CCTV, and Braille embosser. Talking books are also available in this section of the library. However, they were very concerned that the staff that is supposed to assist them in this section lack knowledge on how to operate the assistive devices and the computer speech software. One of the students said:

It was very exciting for us when we heard that JAWS has been installed in the computers. We were very eager to participate in online classes and surf the Internet for information for our assignments. Unfortunately, having the program in the computers has not made any difference at all. We can still not access the course modules. The person in charge of this section tells us that the problem will be fixed soon. However, each day goes by without anything being done. The one who is said to be an expert in the area says there is a problem accessing pdf documents. She is frequently called to come and fix the problem but she never seems to be able to do so. Consequently we are unable to access the course content and assignments and are not attending the online class either. We risk getting disqualified from the class.

Students reported that they faced challenges accessing books and other sources of information. In University A, a blind student cited that although some software has been installed in computers

in the university library in the special needs section, they are still unable to access a course that is taught online due to technical problems that there is no qualified staff to fix.

Another student in the same university, appreciating that the university has provided computers for students said:

The university has made a great attempt because it has very many computers. In addition to that, Internet is provided in many places and we access it with ease. Referring to accessibility of computer labs although this is partly a success and partly a weakness. At one time they had put a notice up saying “this place is reserved for PWDs. So if a PWD comes in while you are on those seats you’re supposed to surrender the seats however, most people don’t comply. So unless someone like a caretaker is present to ask them to give up the seats, they do not do so. Most of the times the rest of the students ignore the notice. During the very first days there were people manning the computers and they would ask someone “can you please excuse her?” but now you can get in and stay there for a long time waiting for someone to finish their work before they allow you to use the computer. To deal with this situation the initiative should have been reinforced. There should always be someone to see that the contents of the notice are respected. Maybe rules should be made barring these people from interfering with places reserved for PWDs. One good thing is that there is enough space in the computer labs that allows for movement of wheelchair. Referring to a friend who is an amputee on both hands she said, “Sometimes you need to use two hands to be able to execute some functions, for example, control-shift. Sometimes she can drag using one arm then she calls for someone to help her. Suggesting what could be done to enable the student use the computer, she said, “I’m only aware of mobile phones. You give commands using your voice” (FGD, Ph4).

In University C, a student on wheelchair reported that he could not access the computers in the university library since the tables on which the computers were placed were too low to allow his wheelchair to roll under in order to enable him reach the computer. Besides, the spaces between the furniture in the computer laboratory were too narrow to allow him maneuver the wheelchair around the room. As such, he did not use the computers at all.

From the above remarks by the students, it can be concluded that students faced significant challenges accessing information through the modern technology in the Public Universities.

There was a clear indication of existence of physical barriers and a lack of specialized personnel to ensure access to facilities for this category of learners. Actually the students' remarks were collaborated by the remarks of a lecturer in the special education department of University A who, in a casual conversation with the researcher said that the said department had acquired some specialized equipment for teaching SWDs but these had been lying unutilized due to lack of specially trained staff to operate the equipment.

From the foregoing, it appears that SWDs can hardly access information through assistive technologies due to lack of support occasioned by a lack of trained staff to deliver the needed services. It also appears that with the advent of the Internet, there has been some kind of motivation to introduce online courses for distance education. It is however unfortunate that in the rush to design these courses and courseware, accommodation needs for LWDS have not been carefully put into consideration at higher education. Technology assists PWDs to accomplish tasks in day-to-day life with least assistance. A press release by UNESCO in concurring with this says:

UNESCO is convinced that ICTs can help mitigate the digital divide and foster the inclusion of persons with disabilities within an educational context as well as within society as a whole. Inclusive and accessible ICTs can be used to address the needs of persons with a variety of disabilities, to the extent that they encourage personalized lifelong learning, employment and social participation (2014 ¶ 2).

From the above it is clear that UNESCO supports use of technology by PWDS as a way of enabling them get integrated in educational environments and the society as a whole. However, technology can also be a tool for exclusion of this group of people, if not well thought out. Technology creates unexpected and under-critiqued (Lanier, 2010) forms of social exclusion for disabled people.

It would therefore be right to conclude that technology is excluding this group of learners rather than including them in postsecondary education. Lack of trained personnel to ensure accessibility of computer technologies therefore seems to be a critical issue at higher education in Kenya.

4.6.11 Information Environment

Accessibility to information is critical for participation in learning for SWDs at higher education. Information empowers. At higher education, ability to access the library, which is a very important resource, is of uttermost importance for every student, including SWDs. Also, it is important that every student is able to get information in a preferred format and in a timely manner in order to keep abreast of what is happening in the campus and act appropriately with regard to such information. A blind student in University B narrated his experience with correspondence with the university prior to reporting. He needed to request for accommodation within the campus before reporting. The university required every student to make this request online. Regarding this the student said:

I was very shocked to learn that I would have to make an online application for a room for two main reasons. One, I am computer illiterate hence I would not be able to use that technology. Secondly, my home is in the rural area where there is no Internet. It meant that I would have to travel to the nearest town, which was many kilometers away, in order to access the Internet. After a while, it sunk that I would have to make the journey to the town and fill then submit my request before the deadline. Getting bus fare to and from the town was an added challenge since my I come from a poor family. Fortunately, my parents tried hard and got bus fare and so I was able to travel. However, I was not able to access the Internet due to my computer illiteracy. Attempts by the cyber café attendant where I sought the services to assist me access the form online were fruitless. I was therefore left with no other option than to travel to Nairobi and obtain the print copy of the application form, which would be easier to fill with the assistance of a reader. I therefore had to also look for bus fare, which was nit easy and when I got some I travelled. I was able to get the hard copy, complete it and submit just before deadline. This experience made me wonder whether the universities think at all about people with disabilities when they formulate their policies. It was very disturbing and tiring to carry out a task, which would otherwise be very easy. Something needs to be done urgently to avoid such torture in future. Even now I am still computer illiterate yet I am in the

university. I have not been given any opportunity to acquire even the basic computer skills.

Regarding use of the libraries the deaf said that there are no interpreters to facilitate communication between them and the library staff whenever they needed assistance retrieving the materials. Ad4 put it thus:

Whenever I visit the library to search for materials for my assignments, no one talks to me. They just look at me, then continue serving other students while I remain standing there. When I sign to them, they do not sign or respond in any way. I feel very frustrated, and then just walk out, as I cannot effectively locate reading materials without assistance. Consequently I lag behind in doing my assignments and this ultimately impacts negatively on my grades. Asked what he would like to see in the library, Kd4 said, they should provide interpreters for deaf people in the library. That way we shall be able to get necessary assistance and make use of the library effectively.

The wheelchair users reported facing barriers in moving around the libraries since the aisles between tables and chairs are too narrow to allow easy movement between them. Also, the aisles between the bookshelves are too narrow to allow movement of the wheelchair and sometimes they step on other users toes and this makes them feel very guilty. They also reported that the bookshelves are too high for them to reach the books they wish to read. The shelves are also too low for them to reach books low on the shelves. They cited not receiving assistance in retrieving the books from the library staff, and they are only lucky when a fellow student comes by and assists them retrieve the materials that they need. They also said that the reading tables in the libraries are inaccessible since they cannot allow the wheelchair to roll under. The same case applies to the computer tables. A student in University C remarked:

” I cannot get my wheelchair under those tables. I have tried several of them without any success” (Ph, FGD).

Due to the prevailing circumstances, these students are forced to read in the hostels in a noisy environment, not conducive for serious study. The computers are also, consequently, inaccessible to this category of learners.

The blind students cited similar experiences where they were unable to retrieve materials from the shelves since the shelf labels lack Braille signage and the print materials are also not labeled in Braille. They have to always rely on friends to retrieve the materials and when none is available to assist they get late doing their assignments. This creates a bad relationship between them and their lecturers since they are often unable to meet deadlines.

4.6.12 Student Life

Accessibility is an important issue for some SWDs. Despite PDA (2003) regulations that public buildings be made accessible, students at each university reported instances of inaccessibility. Although small physical modifications were made as needed to facilities, such as constructing ramps at the entrances of some buildings, students reported awkward access to or lack of lifts accessibility in parts of their campuses, and even an inability to use the restrooms (C, FGD). Actually, even the buildings constructed after the enactment of PWDS Act had their restrooms inaccessible to students on wheelchair (A, B, C). Students appreciated that University A has a main library, which is largely accessible, having both elevators and escalators. However, the blind students were quick to note that there is no Braille signage for floor numbers. As such, they are not able to identify their destinations (A, FGD VI). The respondents also appreciated that there is a separate section for SWDS in the main library. The students who use wheelchairs were utterly disappointed that the washrooms were not accessible to wheelchair users, yet this library

was one of the most recently constructed buildings in the campus (A, FGD, PH). Most of the sidewalks in University C were wide enough to allow space for both those on wheelchair and on foot. However, they were generally too rough for wheelchair users. In universities A and B, the paths are too narrow and rough, therefore moving on wheelchair along those paths is challenging as one competes for space with pedestrians (A, B, FGD). The students indicated that they found it quite challenging to move from one point to the other due to lack of ramps. For instance, some buildings are constructed on higher ground than the surrounding grounds. University has constructed some ramps in a few of these places to make them accessible for wheelchair users. However, a student had the following comment regarding these ramps as he pointed to two of them near where we were seated during the discussion.

Only very few of these have been constructed in the whole campus yet most of the grounds are quite inaccessible. Even the few that have been constructed have not made any difference, because they are actually not ramps, they are like waterfalls. I say this because you cannot move down them on a wheelchair because they are very steep; otherwise if you try to, you will just roll down and overturn at the bottom. Neither can you move up without someone to push you on the wheelchair for the same reason, and they would have to exert a lot of energy to get you to the top. These ramps are constructed haphazardly, without any considerations whatsoever. No expertise is involved. I suppose what will happen is that they will do many of them this way and later they will have to demolish them when they realize they are not serving any purpose. I think a lot of funds will be wasted and they will then tell us they cannot construct the ramps due to lack of funds. These ramps, I think, are done just for the public eye, just for people to see that something is being done for students with disabilities. For instance, the ramp leading to the dais of the graduation square was constructed following insistence by the Director of NCPWDS who was expected to visit the university at a later date(C, Ph1, FGD).

Participation in co-curricular activities is necessary at higher education as it helps to build an all round individual. Students' responses in a survey question to find out the extent of their participation in activities at the universities revealed that a significant number did not participate in any co-curricular activities. This is consistent with the students in the focus groups that they

were unable to take part in out of class recreational activities because they were always trying to catch up with assignments since they were not able to complete them quickly due to lack of assistive devices, or they would be engaged in copying notes from classmates that they had missed during class. The other reasons they gave was that there was lack of specialized facilities to enable them engage in these activities, as well as lack of trained personnel in adapted sports to assist them in sporting. Kuh and others (1991) reported that out-of- class experiences increase students' satisfaction with college, promote leadership development, and enhance opportunities for career success. Schuh and Laverty (1983) found that participation in out-of-class activities builds teamwork and decision-making and planning skills, which in turn promote postgraduate managerial skills. In a 1989 study, Erwin postulated that participation in recreation programs may advance students' self-determination and ethical development and increase students' ability to get along with others.

Because many co-curricular activities promote leadership skills, SWDs ought to be able to take part in these activities. Campus life, experiential learning, and sports and recreation programs build self-confidence and leadership, facilitate interpersonal relationships, and promote career development, which students will benefit from for the rest of their lives. Failure to facilitate participation in co-curricular activities denies SWDs opportunity to develop in the areas of teamwork, leadership skills, self-determination and ethical development.

Disability services staff should view disability as a part of overall diversity and see accommodating SWDs as welcoming another historically underrepresented group to campus. Staff who provide services to SWDs should view arranging academic accommodations as only

part of this job; they need to collaborate with other campus professionals to ensure that these students feel as encouraged to and have an equal opportunity to participate in out-of-class activities as their nondisabled peers (Belch, 2000).

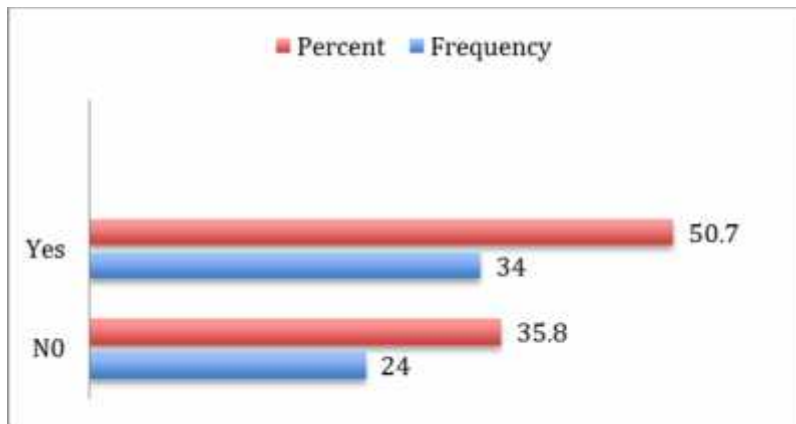


Figure 4.13: Frequency (%) membership in clubs and organizations

Figure 4.13 above shows that only about half of SWDs had membership in clubs and organization while the others did not affiliate with either of these. This is consistent with the students' responses in the FGDs that they hardly had any time to participate in co-curricular activities due to pressure for them to meet deadlines for assignments.

4.6.13 Physical Accessibility

Generally, students in University A reported that the general grounds were accessible to the wheelchair users, as there were curb cuts along the roads and ramps into most building entrances.

However, regarding the footpaths one of the wheelchair users was quick to note:

“Zimeharibika”! (They are rough!); due to wear and tear holes have developed. Such holes present a barrier when one is moving on a wheelchair. For instance, there is one hole; I don't know whether it has been filled yet. Once the wheelchair gets into it is difficult to come out.

The student went further to narrate her experience with classrooms:

“There are also places without ramps, for instance, the old library and there are some classes scheduled there. So you always have to organize for relocation of such classes and the rescheduling takes a week or so. You need to consult the department for rescheduling. If the class is to be moved from upstairs, then all the classes will be affected. For instance in the current semester that was the case. I talked to the chairman of the department and he referred me to the lecturer in charge of scheduling classes. After sometime ...timetable changed venue from old library which does not have ramps and the lift...I don't know whether the lift is functional so the class had to be moved to another venue which had ramps. This happened after almost five days. This means I always miss classes during the period that I am struggling to have the venues changed. It is really tiring and frustrating and makes me feel like I am not a part of this university (A, FGD, Ph4).

Another student in wheelchair reported the following regarding accessibility of classrooms:

My case has been a bit difficult because they said it is difficult to change the timetable so up to now they have never changed. All my classes are upstairs in old library, and I hope next semester they will be able to consider. To deal with this I suggest they should take note of those people with disabilities who are not able to climb staircases so that whenever they make the timetable they have us in mind so that they allocate our classes on the ground floor.

These experiences from the respondents suggest that students who are wheelchair users encounter difficulties accessing class venues and therefore take time to settle to their studies, as they have to struggle to have the venues changed to enable them attend classes.

4.6.14 Attitudes Towards SWDs

Students indicated that the attitude of the faculty and staff about disabilities needed to be changed. Students reported negative encounters with some faculty members when they requested for accommodations. This attitude was illustrated earlier by a student on wheelchair (A, FGD, Ph6). Across the universities, students reported positive attitude from their non-disabled peers. However, where working together in groups was required, most of the non-disabled peers were

reluctant to include those with disabilities in their groups. A visually impaired student narrated his experience regarding study groups:

We face serious challenges in units where we are required to do assignments in groups. When it comes to forming the groups, the nondisabled classmates avoid us. They do not invite us to their groups. The reason could be that they think we are foolish and will not be able to make any contribution in the assignment. As such, it takes us a lot of time persuading the non-disabled students to include us in the study groups. That means we get late starting on the assignments and this impacts negatively on our grades. I suggest that lecturers should assign students to groups rather than leaving it to students to form them. That way we will just be assigned to groups and will be able to settle down to work without wasting time (A, FGD)

A deaf student said the following in an interview:

I find it difficult to get into a group because I never get to know that we are required to form groups because I have no interpreter during lectures. The hearing classmates do not inform me. Maybe they don't like to do so or they forget. When I manage to get information from a friend, I request the others to allow me in their group, but they are usually reluctant to do so but finally they accept me in. However, they don't talk with me. I just remain quiet during the discussion because I don't know how to communicate with them without a sign language interpreter (A, kd4, SSI).

Students suggested that faculty needed to be educated about disabilities and how they can assist the students. They further suggested that disability awareness be conducted to broaden students' awareness about disability issues as a part of an orientation about student diversity and its importance to the university community.

Students also reported that they had negative encounters with the academic staff. A visually impaired student, in a face-face interview recounted her experience with some lecturers in the Special Needs Education department:

Often times I have had issues that I needed assistance to sort out regarding my academics. Since I am a student in the department of Special Needs Education I felt consulting the lecturers in this department would be the most appropriate since they have training and vast experience in teaching students with special needs. However, I was rudely shocked

to find that most of them are quite unapproachable. They would usually dismiss me without listening to my problems. They really didn't seem to care at all. These lecturers are utterly rude and insensitive. This is contrary to what I expected when joining this university and the department in particular. I had very high hopes that my challenges at the university due to my disability would be easy to overcome since I was enrolled in Special Needs Education department where there is expertise. Now, I never want to see those lecturers any more, they are very arrogant! They have really frustrated me. It is really unbelievable that these lecturers behave that way towards a student with a disability (Blind, SSI).

Another student with albinism had a similar experience at the Special Needs Education department. The student said:

I needed extended time for my continuous assessment tests since the time allocated to me is never enough for me to complete the tests since I spend some of it in assembling my specialized table that enables me to write the exam. At the beginning of the semester, I reported my need to the office of disability services. The Director then referred me to the Special Needs Education department to undergo a diagnostic assessment to prove whether I really had a disabling condition. I visited the department and was able to talk to the lecturer that I had been referred to. However, she kept postponing the date for assessment. I got very exhausted visiting the office. It was now over one month into the semester and I had not been assessed yet. I got very worried since the CATs were now due. After more visits, the lecturer finally conducted the assessment and the results indicated that I had a disability that required to be accommodated. She then wrote a letter to the academic registrar and I was allowed extra time on CATs. I just wish there were an easier way for me to have my disability related issues sorted out since currently I spend a lot of time and energy following up simple issues. It is exhausting and at the same time frustrating. My time for study is spent moving up and down, from office to office and this has a negative impact on my grades.

These comments from the two students contradict what the Department of Special Needs Education stipulates as one of its objectives "To provide leadership in Special Needs Education (SNE) and advocacy for quality services for persons with Special Needs" (Kenyatta University, 2013).

The attitudes of other students towards SWDs can also be problematic. Members of the FGDs, who gave examples of the going encounters during registration in University A, described some

non-disabled students as “rude” and uncooperative. Overall, it was suggested that the students be given “sensitivity training” (A, B, C, FGDs).

From the foregoing, it is evident that students across the universities indicated that the universities hardly provided the necessary accommodations to them, and the few that they received were not appropriate. In most cases, the students just accepted the accommodation since there were no options to choose from.

Disabled students’ own perceptions of their teaching and learning experience are clearly important but often neglected (Goode, 2007); indeed the Public Universities gather no feedback from disabled students regarding the support they receive from these institutions. The current research explored in a qualitative way, the perspectives of disabled students. It aimed to examine disabled students’ experiences of support in terms of barriers and enablers to their learning, and to identify possible areas requiring improvement by the universities to support the learning of SWDs. Apart from learning, all other aspects of student life were examined that is, socializing, campus accommodation, sporting and leisure, transportation, and funding since these aspects can impact on learning and academic progress. It is hoped that the findings of this research will contribute to the progress of the public universities towards inclusion, acknowledging Goode’s assertion that “cultural change in large organizations is gradual and requires constant monitoring and continuous ‘effort’” (2007, p48)

4.7 Gaps that Existed Between Policy and Practice Regarding Accommodations for SWDs in Kenyan Public Universities

This section presents the gaps that existed between policy and practice regarding provision of learning supports and accommodations to SWDs in Kenyan Public Universities. An analysis of the responses to questions 1-4 is done to find out whether the universities implemented the policies on disability that they have spelt out regarding provision of education to all, including SWDs.

The studied universities, in their policy documents cited earlier, have stated their commitment to providing quality education and training as their core functions. They also espouse values such as inclusivity, access and equity in education for all learners. However, responses in questions 1-4 indicate that a wide gap exists between policy and practice across the three public universities. Student's responses and data from other sources indicate that SWDs have been largely excluded rather than included in the Kenyan public universities in all areas of curriculum. These gaps are presented below:

4.7.1 Gap in Recruitment

Regarding recruitment, none of the universities sent out materials to let SWDs know that the university welcomes all students, including those with disabilities. Neither do the universities provide any details, in any format, of what accommodations and other related services they offer to SWDs. The universities' websites also do not depict disability nor provide vital information on higher education to prospective SWDs. As such, these students are not able to make informed choices when it comes to selection of institutions where they would wish to pursue their studies

after graduating from high school. All the students who participated in this study indicated that they relied on the information from friends or relatives in choosing universities where they would pursue their degrees. This source of information may not be reliable especially when one is making such important decisions.

The universities also do not apply affirmative action in admitting students to their programs of choice. Since affirmative action is applied in admitting SWDs to the higher learning institutions, then the same should be applied through, even in admitting the SWDs to degrees of their choice. This does not currently happen hence most of the students have to register in different programs because they do not meet the minimum points in required clusters. Consequently, the students register in degree programs where they do not have any interest at all, with the hope that they will have a chance to pursue programs of their interest at master's level. The universities also do not admit SWDs at the same time with their non-disabled peers. The former are admitted after the non-disabled admissions have been concluded. That means SWDs have to wait at home anxiously for their admissions while their non-disabled peers already know what institutions they will be joining. Some of the SWDs have to visit the JAB offices several times before they are issued admission letters, which is not the case with the non-disabled students. Most of these students have to make these trips from their rural homes, an exercise that is both costly and tiresome.

In the faculty survey, respondents were requested the most important products to develop in order to increase recruitment, retention, completion, and graduation or transfer of SWDs at higher education. Majority of the respondents indicated provision of scholarships to the students,

provision of specialized facilities and an emergency phone for SWDs to enable them call for assistance when in emergency situations.

4.7.2 Gap in Registration

The universities also do not provide any structured registration support for SWDs. These students have to therefore struggle through the registration process, spending long hours on queues. The students, some of whom have other serious medical conditions in addition to the disabilities, are often tossed from one office to the other because they do not receive any information in advance from the universities regarding where issues related to their disabilities could be addressed and the staff that they find in the offices where they are referred also do not know the specific offices that could address the students' concerns. This takes SWDs through frustrating and arduous experiences. The experiences of students who are deaf are even more negative since they are not provided with interpreters during the registration exercise. They therefore feel lost during the whole registration period and take longer than necessary to register and settle down for classes.

4.7.3 Gap in Orientation

Data has also revealed that the universities do not offer effective orientation to SWDs. These students therefore have to struggle by themselves in finding out locations for classrooms, lecture halls, various offices and shopping centers. This again proves very tiresome and time consuming for these students. The blind are particularly more affected in that they require some mobility and orientation in order to be able to move about the campus on their own. The universities do not even provide them anyone to assist them in mobility and orientation to the campus environment.

Neither do these institutions provide tactile maps to assist the blind students find their way around. The deaf too find this quite challenging since they are unable to communicate with the hearing in asking for directions.

4.7.4 Gaps in Financial Support

Students with disabilities enrolled in the Public Universities hardly receive any financial support or even assistance in seeking financial aid. Two of the universities cited that they assisted students in seeking financial aid, but the students said the kind of support offered to them does not bear any fruits since no useful details are provided to them. University A mentioned providing financial aid to SWDs through an Orphans and Vulnerable Students (OVS) Scholarship program. However responses to the question in the students' survey: "Do you receive financial aid?" indicated that only a few students received financial aid and this, is not from the universities but from the NCPWDS. Also no student, across the universities, mentioned receiving any financial aid from the university in the focus group discussions.

4.7.5 Gap in Accommodations and Other Auxiliary Services

Universities recognize in their disability mainstreaming policies that it is a legal requirement to provide accommodations and other support services to SWDs at higher education. However, data has revealed that there is very little effort by the universities in providing extra support to this category of learners. This is quite evident by the types and range of accommodations and support services that the disability service offices in the respective universities reported that they provided to these students. The few supports the universities provide are mostly Braille machines, which the students said are an outdated technology. In the three universities, students

hardly receive any accommodations in course instruction and most of them do not, therefore, benefit from lectures and class discussions. The deaf particularly, are the most affected since lectures are mostly delivered orally, hence they hardly get to know what is being discussed because they do not receive interpretation services or other alternative modes of communication during the lectures. Without the needed accommodations and supports, SWDs find it extremely challenging to follow the curriculum and perform well in their academics while their non-disabled peers go through the same curriculum with fewer challenges. Thus, the playing ground at higher education is not level, considering that SWDs take the same courses with their non-disabled peers and performance in these high-stake examinations determines the chances of getting a job after graduation. This is a clear case of inequality of opportunities at higher education in Kenya, which should raise a lot of concern amongst educators and the government.

4.7.6 Gap in Information Environment

Across the universities, students indicated that they do not get access to information due to various reasons. Those who use wheelchair said that the notices are posted too high on notice boards for them to see and read. Students who are blind said that information is mainly presented through print format on notice boards and they cannot read it and have to depend on sighted students to read for them. Besides, those who friends have reported that the notices often get destroyed before their friends could read for them. Thus due to the aforementioned reasons, this group of students often miss on a lot of information, some of which is very important and they cannot therefore keep at par with campus life. Deaf students said they miss on almost all information provided orally, whether in classroom or out of class. Students in A also raised concern that they were not able to utilize the library fully since it is located too far from their

hostels and therefore they felt insecure to stay in the library up to mid-night, when the library closes. They felt there were times when they were very pressurized by assignments hence needed to spend more hours in the library doing research. However, they were forced to leave the library earlier since the “tuktuk” services end at 5.00 P.M. They pointed out that they needed to access the library as much as their non-disabled peers and suggested that the “tuktuk” service hours be extended to mid-night as failing to do so would be discriminatory.

4.7.7 Gap in Technology

Though universities indicated that they were committed to adoption of technology, some students cited that they were computer illiterate, and no arrangements were in place to train them on computer use. The students also said that the universities neither provided them with modern assistive devices, nor is technology integrated in instruction. The participants in the distance and on-line courses reported that while they appreciated the flexibility of e-learning, most of the courses were extremely inaccessible for those students who had visual impairment were amputees. The main reason for inaccessibility was that during the development of these courses the needs of such students were not considered. Students who are blind or visually impaired reported dissatisfaction with the experience of online learning (A, VI, FGD). Students who are amputees reported their inability to use the standard computer keyboards, as they require use of fingers to operate the computer and a lot of force in striking the keys.

4.7.8 Gap in Students' Welfare

Though the universities provided on- campus housing for SWDs, the students pointed out that there is a lack of structure and coordination in allotting the single rooms to the students and the

students are referred to one office to the next before they can be allocated the single rooms. They also pointed out that sometimes they are not allocated the single rooms, instead they are forced to have one roommate or more while students without disabilities are allocated the single rooms. They cited sorting out accommodation issues is quite frustrating, tiresome and time-consuming. Students in University A pointed out that there is a total lack of structure in addressing on-campus housing for SWDs. A student who has both albinism and epilepsy recounted her experience with housing at the university:

Apart from having albinism, I also have epilepsy. I often get very serious seizures, sometimes in the night. When I recover from the seizure, I find that I am lying on the ground, with pain all over my body. I think I hit myself on the bed and other objects in the room. Though I often have a roommate, she does not know how to assist me. Other roommates that I have had in the past are not willing to assist. I wish the university could provide me with a bed designed in a way that it prevents me from falling off during such times. I would also wish to be allowed to choose a roommate who is willing to assist me when I get into seizure. Unfortunately my request to choose a roommate has been completely turned down by the accommodation staff. They don't seem to understand my needs at all and sometimes I feel they don't care either. I also wish there could be some personnel in the hostels charged with the responsibility of checking on me and other students who have epilepsy so they could offer assistance in a timely manner. Such personnel need to be equipped with knowledge about epilepsy and with skills to offer appropriate assistance to those with this condition (A, Alb, SSI).

The remarks by the student who has multiple handicapping conditions indicate that the student had needs, which she felt, the university did not adequately meet. Notably, she was quite disappointed that she did not get any opportunity to explain strategies that would help ameliorate the challenges that these conditions posed in her life at the university. Consequently the respondent felt the university was not concerned about her welfare and that the environment was unsupportive of her learning. Therefore, she had to struggle to survive at higher learning.

In University B students pointed out that those in the parallel program are not considered for on-campus housing hence they have to live off-campus, a situation that makes attending school very challenging for them especially because they use public transport which is not efficient. They therefore get held up in the traffic jams and this makes them get late for their classes. Moreover, by the time they are arriving at campus, they are too tired to effectively follow lectures.

Lack of reliable accessible transportation makes it impossible for some SWDs to undertake academic trips; consequently the students miss out on what the rest of the class learns. This category of learners is also not able to attend social activities due to transportation challenges and this makes them feel isolated from the rest of the university community. The students are also unable to participate in co-curricular activities due to lack of specialized facilities such as fields/pitches, adaptive devices and trained personnel in adapted sports. Thus, the students are denied the opportunity to develop as all round individuals. Traveling out of campus on personal errands was also cited as a major challenge, especially for wheelchair users. The universities also do not facilitate participation of SWDS in co-curricular activities. The students therefore hardly participate in social events hence feel isolated.

Though the Universities conducted disability awareness campaigns, these are only done once in a year and the students felt that these campaigns are not effective in sensitizing the university community on disability basically because they are not well planned. There is a lack of coordination and collaboration in the planning for the annual event, hence usually only a few students with disabilities participate in the event, and hardly any non-disabled students and university staff attend.

All the three universities cited that they were concerned about the welfare of SWDs and mentioned that they provide guidance and counseling services to these students. However, data from analysis of documents from these institutions indicate that the counseling services are offered generally to the whole student population, and none specifically to SWDs. Also the universities do not offer any training on advocacy skills to these students. Thus the students are neither aware of their rights nor do they know how to ask for these rights. Actually most of the students who participated in this study, across the universities, expressed concern that if the respective universities got to know that they volunteered information in this study, they would be victimized. Universities B and C did not facilitate formation of organizations for SWDs, which are crucial in articulating students' needs at higher education. Thus, students found it extremely difficult to have disability issues addressed when they present them on individual basis.

4.7.9 Gap in Training Staff

Across the universities, faculty indicated that they experience challenges assisting SWDs basically because they lack knowledge and skills on how to handle these students, yet the universities cite in their policies that they will conduct training to equip faculty and staff with the needed knowledge and skills in handling SWDs. The faculty further indicated that they do not know who to consult regarding disability issues since there were no existing structures in the universities in dealing with such issues. They cited that even where students receive some form of assistance and supports, there is no structure in providing the needed supports and there is a lack of coordination in provisions. The faculty also pointed out that there is a serious lack of specialized facilities for teaching SWDs such as modern technology, particularly assistive devices. They also mentioned lack of auxiliary services such as sign language interpreters for the

deaf, and note takers for the amputees. This, they pointed out, makes it extremely difficult for them to teach these students since they experience communication barrier with the deaf while the amputees are too slow in making notes for the to keep up with the rest of the students, while some are unable to make any notes at all.

Data from administrator survey indicated that except in University A, the other two Universities did not have a unit that is responsible for the implementation of the disability policies. In A, there is a Directorate of disability services headed by a Director. Also mentioned was lack of qualified psychologists to do diagnostic assessment. None of the universities mentioned having a qualified psychologist who knows how to do fair, balanced, and useful assessments for learners with disabilities at higher education settings. As a result, assessment quality varies across the universities and creates inconsistencies and errors in accommodation services.

Students across the three universities indicated that faculty and other staff displayed negative attitudes towards them as they sought accommodations. This finding is consistent with the findings from the study by Fichten (1988) who commented that while professors, in general, have "moderately favorable attitudes toward disabled students on campus ... their attitudes are somewhat less positive about having such students in their own department" (p. 177).

From the foregoing, it is clear that though the universities state in their strategic plans that they are committed to offering quality education and training to all, this is not the case because as far as SWDs are concerned, these higher learning institutions hardly provided SWDs with needed accommodations and related services. There is a serious deficit in program accommodations,

scheduling accommodations, setting accommodations, presentation accommodations and testing accommodations.

Generally, the public universities are still largely operating from charity and medical models in providing accommodations to SWDs. There is a lack of commitment in the provision of accommodations for SWDs across the three Public Universities. The supports are given at the whims of the universities, not as a right to this category of learners. The impact of the existing policies on disabilities is yet to be felt by SWDs who are struggling through the curriculum with hardly any supports from their respective universities.

An analysis of data has revealed that there are wide gaps between policy and practice in provision of accommodations and other auxiliary services to SWDs at Kenyan Public Universities. Though the universities have some sort of policies on how to address disability issues, the students are yet to feel the impact of these policies since their learning needs are hardly addressed by these institutions of higher learning. This finding is consistent with that of Riddell, Tinklin, and Wilson (2005) who pointed out that although institutions of higher learning had disability policies in place as well as structures for addressing special needs for SWDs, there was a clear discrepancy between the well articulated statements and practice, since students still faced insurmountable challenges because their needs were not envisaged but were addressed on a one by one bases, as the needs arose.

Literature reviewed indicated the poor status of provisions for SWDs in Kenyan Public Universities (UNESCO 1997). This situation has not changed over the years as indicated by the findings of this study that in one of the universities that was studied in the UNESCO project

(1997), and which is actually the oldest of the three universities in the current study the situation still remains the same. This situation may partly be explained by a lack of effective legislation in this area. It is therefore hoped that with the provisions of the constitution the universities will put in place the necessary measures.

However, based on the findings of this study there are several factors which institutions of higher learning and the personnel involved in providing services to SWDs need to put into consideration if they are to address potential inequities in educational, social, behavioural and physical environment. In a related study, Ridell, Tinklin, and Wilson, (2005) found out that although higher learning institutions had policy on disability in place and had established learner support programs, there was a clear gap between the well articulated guidelines and service delivery, as most students struggled to receive supports without prior arrangement. As such, the ideal of creating fully inclusive institutions in which anticipatory adjustments are incorporated will obviously require some time to accomplish. However, based on the findings of this study, there are several factors that institutions of higher learning and staff supporting SWDs should put into consideration to address potential inequalities in educational, social, behavioral and physical instances. Indeed, this study has identified some critical issues for higher education institutions to address, namely, that pre-registration support is fundamental; personnel ought to be devoted to providing inclusive instructions; involvement of, with and recognition of students perspective is necessary; it is obligatory for higher learning institutions to establish learner support units; and individualized strategies must be incorporated. Thus, as Ridell (1998) argued, those involved in according SWDs equitable opportunities in higher learning need to continue reducing barriers gradually which will, most importantly, require a concerted effort in implementing the policies to influence practice that allow flexible strategies in all areas of university life. Indeed, Konur

(2007) suggested individuals with disabilities ought to have a chance to gain comparable academic accomplishments to their peers without disabilities; and the issues raised in this study have come directly from disabled students and would be a useful starting point for proactive action.

4.8 Model for Provision of Learning Supports and Accommodations to SWDs in Kenyan

Public Universities

In order to enable Public Universities take a proactive approach in addressing disability issues, this study proposes a prototype of provisions of learning supports and accommodations to SWDs in higher learning. It takes a student-focused strategy anchored in the needs of SWDs as expressed in the findings of this study. The methodological designing takes into consideration the Universal Design of goods and services and individual accommodation approaches. As earlier pointed out, universal design ensures that goods and services are accessible and usable by as many people as possible to the largest extent possible (Mace, 1998; CAST, 2002) while individual accommodation is based on the fact that no two individuals with disabilities have similar needs although they may belong to the same disability category. Therefore accommodations should be provided on individualized basis rather than providing blanket accommodations. The social model of disability has also informed the design of this model, basically its position that it is not the disability that disables an individual, rather the society by erecting barriers in the environment that make individuals with disability unable to go about their daily activities. As such, the society should remove those barriers and give opportunity to these individuals to participate fully in the society independently and contribute to the economy. The researcher emphasizes the important role of advanced Information Communications Technology

(ICT) systems for the effective service organization, management, and provision. Moreover, this model impacts the learners' scholarly surroundings and the accessibility guidelines within and without the higher learning institutions. The central anchor of this model is the "Accessibility Division" which provides a number of supportive services, systematized in a three-layer structure based on their closeness to the learner: accessibility services direct with a direct focus on the student, accessibility services dedicated to the student's environment, and accessibility boosting services.

A Diagrammatic representation of the model is provided below, which gives a general overview of these layers of the prototype, along with their services that are described in the next section.

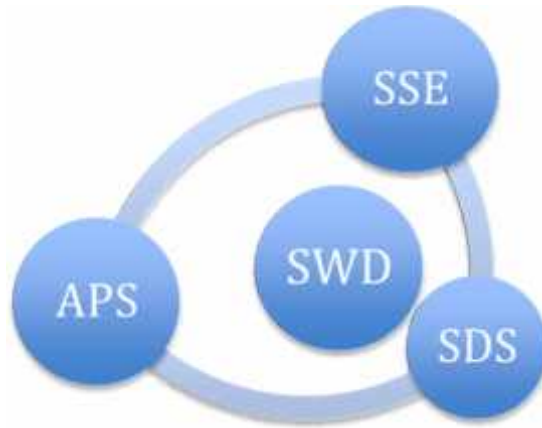


Figure 4.14: Accessibility division provision model

(Generated by Agnes Wanja Wanjau. 2016.)

SDS	Services addressed direct to students
SSE	Services targeted to student's environment
APS	Accessibility promoting services

4.8.1 Accessibility Services Focused Directly to the Student (Level 1)

Services included in this level are those that directly touch on specific needs of SWDs. They have an immediate impact in a number of their activities, that is: involvement in the instructive process, exchange of information with other learners, the lecturers, and the university staff,

moving from one place to another and housing accommodation, and interplay with their learning environment such as lecture theatres, libraries, laboratories, wards, among others. These are:

4.8.1.1 Students' Needs, Data Capture & Collation Service (SNDC & CS)

The very first contact of the disabled student with the "Accessibility Division" should be made through the Students' Needs and Data Capture and Collation Service (SNDC & CS). The service will be responsible for systematic and detailed documentation of the needs of SWDs and the key obstacles anticipated during their studies. Learners should be made aware about the Accessibility Division well before reporting to the University via its website or during registration. They should be encouraged to furnish the university with relevant disability-related data by filling in a Students' Needs and Data Capture Form. This form should be provided in various formats to ensure every student can express their needs in their preferred format. The SNDC & CS should be available to the students throughout their period of study at the university. The records can be reviewed and altered as the student's needs evolve.

4.8.1.2 Ability Diagnostic Service (ADS)

Trained staff of the Accessibility Division should meet with each of the learners with exceptional needs, individually, after studying the output of the SN&DRS, and explore the accommodations that may be appropriate for each of them. Together, they will carry out individual diagnostic assessment in order to determine main obstacles through the educational process and figure out ways to accommodate them. The ultimate goal of the ADS is to assign the services each individual student with disabilities needs. This goal will be accomplished using the mapping of the student's accessibility needs with the services described in the prototype.

4.8.1.3 Individual Assistive Technologies Service (IATS)

The IATS is supposed to provide basic support services as well as suitable apparatus for testing and evaluating a wide range of Assistive Technologies (AT). Today, computer based AT are meant to expand and upgrade the abilities of SWDs with the aim to autonomous and equivalent scholastic involvement (Nedeljkovic, 2016). The AT could be made more accessible and affordable, by utilizing AT software that is available free of charge. The learner's requirements for AT and the potential productivity of utilizing a particular AT ought to be assessed in view of the ADS data. Individual AT ought to then be proposed or presented or even given free of charge to the student. At that point, an individualized training, specialized assistance and guidance on AT should be given by the IATS.

4.8.1.4 Transportation Service (TS)

The Transportation Service are necessary to provide means of movement for orthopedically impaired students and any other students with specific transportation needs within the university, out and back to the university, or commuting between home and the university. The students ought to make a request for transport at the commencement of every semester and every examination period. These services should include the use of special vehicles accessible to wheelchair users. The staff of the TS ought to include drivers and an entirely committed secretary.

4.8.1.5 Accessible Instructional Resource Service (AIRS)

The AIRS will have the task of changing instructional resources into accessible format, so as to enhance fairness in access to information and knowledge more so for students who have challenges reading regular print and those who have challenges accessing information in audio formats. It will be necessary to outline basic steps for production and for requesting for the

materials and subsequent procurement of the materials and their dissemination in alternative formats.

4.8.1.6 Psychological Guidance and Counseling Service (P G&CS)

The PG & CS will provide psychological counseling to SWDs. For many SWDs feelings of anger, frustration, hate, sadness or embarrassment may lead to psychological difficulties such as depression, anxiety, and low self-regard. They may also experience additional difficulties such as stress occasioned by poor communication skills, study and anxiety during examination periods, difficult relationships, as well as behavioral problems such as drug and substance abuse. Consequently, this category of learners with disabilities may require guidance on related to these and other challenges in course of life.

4.8.1.7 Sign Language Interpreting and Video Relay Service, C-Print and Computer Assisted Real Time Captioning (SLI, VRS, C-P & CART)

To guarantee accessibility for students who have communication challenges, the Accessibility Division should provide SLI, VRS, C-Print and CART. Students who are deaf can request for a sign language interpreter for the units they are enrolled in. The VRS service will address the needs of learners who are profoundly deaf and those who are have partial hearing, severe speech difficulties as well as those who cannot utilize the telephone for correspondence. This service is meant to give prompt remote correspondence with fellow learners, lecturers and administrative staff of the university.

4.8.1.5.8 Volunteering Service (VOS)

Volunteerism is a common practice, which is appreciated by many SWDs in higher education settings. Across the universities, it is clear that quite a number of SWDs rely a great deal on assistance from fellow students who volunteer to help them in accomplishing various activities.

As such, this practice should be promoted, but also guaranteeing that the services given by the volunteers do not lower the quality of services to SWDs. They should also not compromise the studies of the student volunteers. This service should encourage more students and other individuals to volunteer assistance to SWDs. A learner with a disability, who requires help on a daily basis, can request for assistance of a volunteer through the Volunteering Service. The pool of volunteers could consist of fellow learners or individuals living in the neighborhood. They should be supervised by the Volunteer Services to assist and support SWDs in various activities in the university. In recognizing the role of student volunteers in higher learning, Salend and Yanok (1985) have suggested that students enrolled in special education programs be engaged in providing guidance to students in the postsecondary environments who have handicapping conditions as a component of the former's monitored field practicum.

4.8.2 Accessibility Services Impacting the Student's Surroundings (Level 2)

In the second level there ought to be services dedicated to modifications on the educational settings that are vital for making the learning environment barrier-free. These services impact directly on learner's involvement in the instruction since they are concerned with general accessibility of the institution's premises, induction of those who offer voluntary services, and institution's workforce, developing procedures, and making available barrier-free libraries and laboratories. The learner-focused strategy is still relevant in this level since a lot of stress and precedence on the learner's' needs should be put on the implemented services. The services at this level are:

4.8.2 .1 Infrastructure Accessibility Service (IAS)

The IAS will consist of staff specialized in civil engineering and mechanical engineering, who should assess the accessibility of the university infrastructure, the general surroundings and

motor vehicles to see whether they comply with the legislative regulations. The service should also oversee development of new structure and buildings so as to guarantee they will be accessible to individuals with disabilities.

4.8.2 .2 Barrier-Free Libraries and Laboratory Service (B-F L & LS)

The B-FL & LS will provide the statements on requirements with regard to infrastructure of the university libraries and laboratories including accessibility of AT for learners with various disabilities. It should also ensure that alternative computer access systems are availed for the learners who need them.

4.8.2 .3 Procedures Services (PS)

Among the key services in level 2 is the PG. It will give guidelines and spell out standard procedures in providing services to SWDs so as to ensure that these students are accorded fair assessment and treatment during their studies with regard to courses and across departments. Therefore the functions of the PS will among others be development of: (i) directions for the provision of adjustments or modifications and auxiliary services in examinations or testing, as well as materials and examination supervision adjustments, for instance, computers installed with AT, readers and scribes, extra time on examinations, and separate examination rooms, (ii) directions for the development of course content in alternative formats (iii) levels and standard procedures for provision of services by the Accessibility Division.

4.8.2 .3 Personnel and Volunteers Induction Service (PVIS)

In the aforementioned services of levels one and two, a learner will touch base with the Accessibility Division personnel, his/her academic counselor, and the other support staff. The Accessibility Division will be obligated to educate this group about their additional responsibilities. As part of that role, the PVIS will sensitize the general staff and lecturers on

disability issues. Case in point, faculty secretaries who serve SWDs will be trained on the most proficient method to correspond with them utilizing various modes, how to give support to them, the Accessibility Division's roles so as to advise the students accordingly, and they are acquainted with the Students' Needs and Data Capture Form. Library staff, then again, will be required to attend workshops on utilizing and exhibiting the accessible AT provided in the libraries. The academic advisors for SWDs in every school/college ought to be educated by the PVIS about the involvement in the courses; assessments and examinations plans, and any optional choices for the SWDs. Lastly, all individuals offering voluntary services, ought to be educated on the best way to help SWDs.

4.8.3 Accessibility Enhancing Services (Level 3)

Level three of the prototype incorporates activities that aim to propagate exemplary service delivery and influence a large number of people in the society. The postsecondary institutions will need to step up their effort to support accessibility programs within the campus environment, the general education system and even to other organizations beyond the learning establishments. This will be attained via various strategies such as web accessibility assessments, gatherings and occasions, know-how propagation, and research ventures.

4.8.3 .1 Web Accessibility Appraisal Service (WAAS)

The main role of WAAS will be to see to it that all the university programs and correspondence including materials posted on the university web pages, are accessible to all stakeholders, including SWDs. This will guarantee that SWDs are not excluded in e-learning/distance learning. It will also ensure fairness in information environment.

4.8.3 .2 Events Planning Service (EPS)

Events whether formal or informal for instance, conferences, workshops, and so on, are key in elevating the Model for Provision of Learning Supports and Accommodations to SWDs, The Accessibility Division as well as the University itself. Such events give an opportunity for all interested parties to meet, get acquainted with one another and exchange ideas, skills, experiences and opinions.

4.8.3 .3 Expertise Dissemination Service (EDS)

The responsibility of the EDS will be to plan or take part in various forums in the area of disability access, Information Technologies, computer technologies, and AT and inclusive education. The activities of this service will therefore promote networking and joint initiatives with other institutions and organizations with regard to matters relevant to specialized training and disability-related programs for education. In addition, ADS distribute sensitization materials to all stakeholders and community at large. This service will also be committed to designing and manage the Accessibility Division's website showing what services it offers, the model of provision and the subtle elements of available AT.

4.8.3 .4 Research on Learning Access Service (RLAS)

The Accessibility Division needs to have some scientific personnel that will involve the Division in conducting research aimed to promote equity in access to instruction for SWDs. Relevant projects to ensure accessibility of websites, promote design of goods and services for all, universal design for learning , incorporation of AT and so on will be critical as these will enable the university to keep abreast of advances in higher education for SWDs and progressively review their policies, programs and procedures to ensure this group of learners has full access to and involvement at higher education.

4.8.4 Implementation

For effective implementation, the proposed model of provision of learning supports and accommodations for SWDs ought to be ingrained in the hierarchical and administrative structure of the universities as suggested in the next two sections. This is crucial because the functioning of the Accessibility Division will very highly dependent on the size of the institution and administrative structure, and on the national policy and legal environment, Proposed hereby are organizational and managerial structures for the Kenyan setting and suggestion to incorporate them in depending on individual university's requirements.

4.8.5 Organization

The proposed Accessibility Division should comprise four sections: Digital Accessibility, Landscape and Buildings Accessibility, Transportation, and Psychological guidance and Counseling. The current research focuses on the electronic access section for the following reasons: first, the researcher believes that ability to utilize computer technology and digital sources of information such as the internet and digital literature is the main tool for effective study at higher learning nowadays. Second, information and communication technology and Assistive Technologies are the most effective tools in ameliorating the impact of an individual's disability particularly in an educational setting, and finally, because it will be critical to computerize most of the services the Accessibility Division is intended to provide. Computerization means there will be use of cutting-edge information systems and computerization which will be designed in order to promote, oversee, expedite, and enhance each service. Permanent personnel should be employed in the Accessibility Division to ensure effective delivery of services. There should be personnel specialized in various areas, including electrical engineers in the e-access section, Computer Science, who should additionally be

knowledgeable and skilled in accessibility. Other required personnel should be specialized in the areas of electronic Documents, Sign Language Interpretation, and sociology for supporting the Volunteering Services. In the Landscape and buildings Accessibility section there should be a specialist in Civil Engineering and one in Mechanical Engineering, both incorporated in the offices of the technical services of the university in order to enable them carry out their duties in the most practical way feasible. Finally, in the Transportation section there should be some drivers. It is important to note that the number of students served should dictate the number of personnel in each of these sections and since this is bound to vary from one institution to another, the university should hire them accordingly.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusion and recommendations on the results of the quantitative analysis of the survey together with the results of the qualitative analysis of the interviews, focus group discussions, checklist and document analysis. It also gives suggestions for further research. The study set out to examine policy and provisions of learning supports and accommodations SWDs in Kenyan Public Universities. The findings of the study were expected to offer valuable insights to the policy makers in education on significant considerations in provision of needed learning supports to SWDs. The study adopted a descriptive approach using a survey design in which a questionnaire was used to gather data from SWDs, faculty members, service providers and administrators from Kenyan Public Universities.

5.2 Summary of Research Findings

The summary of the findings from analyzed data is presented under themes derived from the research questions of the study.

5.2.1 Policies Pertaining to SWDs in Kenyan Public Universities

Despite the barriers in accessing and persisting in Public Universities, there are still SWDs attending various programs. The present study has attempted to examine the state of policy and provision of learning supports and accommodations for those SWDs in these institutions of higher learning.

Lack of functional policies on disability at higher education was cited as a major barrier to provision of accommodation and other necessary supports to SWDs at higher education. This has consequently resulted to lost opportunities for SWDs to excel in academics. This was indicated by a number of sub-themes that have run throughout from the responses of the participants and therefore need to be given particular attention. One of the overarching themes was the struggle that SWDs have to go through to get accommodations and related services at Kenyan Public Universities.

One of the key findings of the survey as well as interview with participants showed that two of the Public Universities had written a disability policy. However the policies had not been implemented. One of these universities had not released the policy to the public. The third university still had its policy in draft stage. It can therefore be concluded that currently, provisions for SWDs at these public institutions is not governed by any policies. This also implies that the provisions are left to the whims of the universities. Analysis of policy documents for the three Public Universities revealed that the issue of disability is scantily addressed at these higher learning institutions. For instance, the documents lack admission policy and procedures that specifically address the needs of SWDs. Clearly disability is not among the important agenda of the Public Universities. The issues of SWDs in the Kenyan higher learning institutions' policies are highly overlooked. The current study has also revealed that there is a lack of structure in providing accommodations and other supports to SWDs in the Kenyan Public Universities. This is attributed by the fact that policies on disability have not been implemented and that there is a lack of procedures and guidelines on provision of learning supports and accommodations. As such accommodations are either completely lacking or are provided on a charity model. Consequently, this category of learners face insurmountable challenges in pursuit

of education in these universities, and some are forced to stay out of the university for some time or drop out since they cannot undertake their studies successfully without appropriate supports. The current study also revealed that disability issues are clearly not an important agenda of the Public Universities. Though there are expressions of commitment in some of the policy documents, there lacks a solid implementation structure across the universities. The existing policy documents fail to provide explicit disability statements, procedures and guidelines for accommodations. For instance, recruitment of students to Public Universities was a major topic of discussion. Lack of effective recruitment exercise means SWDs do not get to know which universities provided supports and accommodations for these students. Admission procedures and criteria for SWDs were also not well articulated. The affirmative action policy was not well spelt out hence students were not able to enroll in programs of choice.

Actually, this is further confirmed by the researcher's encounter with various administrators at the studied universities who said in an interview with the researcher that they did not know anything to do with disabilities. Instead, they referred the researcher to lower offices where she also found out that the junior staff was not aware of disability related issues. It was also very worrying when administrators in the planning departments confessed that they did not know anything about disability-related issues. On further probing on how they planned provisions for SWDs they became uncomfortable and again referred the researcher to junior staff. Clearly, the senior administrators across the three universities were not comfortable discussing disability issues, except in University C, where one of the administrators gave the researcher an interview and was very open-minded about the topic of discussion. These encounters raised a lot of

questions in the researcher's mind about what the current situation of the SWDs in these institutions might be like.

5.2.2 The Range and Types of Support and Accommodations Provided to SWDs at Kenyan Public Universities

The main role of learning supports and accommodations is to remove obstacles for SWDs and ensure they can participate fully in all aspects of student life as well as to help minimize the impact of their disability on their learning. Responses from the participants revealed that the Public Universities provided a very narrow range of supports and accommodations for SWDs. there was generally a lack of AT for SWDs in the Public Universities. In this millennium, technology is available for use by all people and it liberates PWDs from dependency. In school, assistive technology enables the learners to undertake the curriculum with least barriers and be able to compete favorably with their non-disabled peers. Technology breaks barriers for these students and enables them to go about their business normally. It therefore raises a lot of concern that SWDs at higher education hardly receive support in form of technology and other auxiliary services such as interpreters. The role of technology in learning of SWDs cannot be overemphasized. While assistive technology is transforming lives of SWDs in most parts of the world, it is of great concern that almost none is available for this category of learners at higher education in Kenya. In the 21st century, the world is being driven by information and therefore SWDs ought to be provided with the appropriate technology to enable them pursue their education successfully at postsecondary level.

5.2.3 The Views of Faculty Members Regarding Challenges Faced in Providing Learning Supports to SWDs

An overwhelming majority of the faculty that responded to the surveys and those who participated in the interviews indicated a willingness to give assistance to SWDs. However, this has been hampered by their lack of appropriate facilities and knowledge on how to handle this group of learners. Their lack of awareness on the needs of SWDs raises concern since these students are part of their class and it is expected that they should be able to deliver the content to them as effectively as they do to the non-disabled students. Most of the faculty members reported having no knowledge of Universal Design for Learning. The findings were however quite encouraging as some of the faculty indicated that they made effort on their own to accommodate SWDs in distance learning. It is therefore incumbent of the universities to take advantage of this good will and offer training to their faculty on disability issues in order to fully equip them to teach all learners.

5.2.4 Views of SWDs Regarding Adequacy and Appropriateness of Accommodations Offered at Kenyan Public Universities

The goal of accommodation is to make the curriculum accessible to SWDs without reducing the standards and the rigors of the curriculum. One of the key findings in this study is that most of the students reported that they hardly received accommodations and the few that they did receive were not appropriate since the students were not involved in selecting them. The most commonly provided accommodation was Perkinson's Braille which the blind students reported to be an outdated technology and which makes them social outcasts as it makes a lot of noise in class making their non-disabled peers avoid sitting near them. Moreover, they pointed out that the

machine was too heavy for them to carry around the campus as they move from one lecture to the next in the vast university compounds with lecture rooms scattered far apart. Where students had consecutive lectures, the situation was even more challenging as they would have to walk long distances and consequently would often reach the lecture venues late. This meant that they missed the introductory parts of the lectures, which are very crucial in understanding the rest of the lecture. This gap in information, the students explained, impacted negatively on their acquisition of knowledge and ultimately on their academic grades.

Another profound finding was that the deaf/hard of hearing students hardly received accommodations at the Kenyan Public Universities. This is of critical concern considering that this category of learners has communication difficulties that can only be overcome through sign language interpretation and/or use of assistive technology. This raises a lot of concern since this category of learners faces serious communication challenges and in absence of interpreters and assistive devices they get completely cut off from classroom instruction and campus life in general and this could lead to frustration and drop out.

The other barrier to full participation of SWDs in university postsecondary education was the negative attitude amongst staff and fellow students occasioned by a lack of disability awareness. Notable from responses of the students in the survey, focus groups and interviews is that SWDs in Kenyan Public Universities undergo very negative experiences as they seek supports in these institutions of higher learning. Arising from these responses were sub-themes such as “I was not aware” “struggle”, “fight hard for”, “frustrations”, “give up”, “exhausting”, “tiresome”, “there is no one to assist”, “you are lucky to get assistance”, “no one seems to care”.

The other of the major issues raised by the findings of this study is that SWDs face serious financial difficulties due to inadequate funding. The students require extra funding to meet extra expenses occasioned by having a disability such as expenses on assistive devices and medical bills for certain conditions. Inadequate financial aid remains one of the major barriers to learning and successful completion of postsecondary program for SWDs. Adequate funding would enable students worry less about their next meal and instead concentrate in their academic work and ultimately attain good grades to enable them compete in the job market favorably with their non-disabled counterparts, and consequently live independent decent lives. Lack of reliable financial support has impacted negatively on their academic performance.

The findings also revealed that the students faced emotional challenge such as frustrations on daily bases in pursuit of an education in the universities. Lack of specialized facilities for SWDs was cited as a major barrier to full participation of SWDs at higher learning institutions. Consequently, SWDs felt isolated from campus activities due to inaccessibility of the buildings, lack of information and a lack of specialized sporting equipment and staff to give training and support in various sports.

Findings indicated a lack of equal opportunity for SWDs in the Universities. It suffices to say that the degree to which equitability is actualized is an indicator of good practice. It should be in the interest of a university which aims to getting recognized for good practice to adopt and maintain a culture of full inclusivity. Although Kenyan Public Universities have shown some effort to provide supports for SWDs, there is need for conscious effort and commitment to provide accessible education to this category of learners as a matter of human rights rather than

charity. A considerable number of students face enormous challenges as they request and receive learning supports and accommodations. Educating service providers, administrators, faculty, support staff and peers on supports, accommodations and the rights of PWDs would go along way in reducing struggles for this category of learners at higher education. Absence of functional policies and programming to enhance involvement of SWDs presents obstacles to full access by diminishing the range of options available to these students.

5.2.5 Gaps that Existed Between Policy and Practice Regarding Accommodations for SWDs in Kenyan Public Universities

The findings of this study have made it very obvious that Public Universities are currently not applying any policy in providing SWDs the supports they require to successfully undertake their studies at this level. Although intentions to provide supports to SWDs have been indicated in the policy documents of the universities, there are obvious silences in that these policies do not spell out what to provide, when, by whom, how and what are the consequences of not providing the necessary supports. Still operating on the charity model of disability and the medical model, the universities view students as needing handouts, which are dished when deemed necessary by the university administration. The universities also view students with disabilities as having problems that need to be “fixed”. Consequently, they have failed to understand that it is the university environment that disabled this category of learners and therefore expect the students to adjust to the hostile environments. Disability is culturally constructed hence university need to shift swiftly from the charity and medical models of disability to the social model which advocates a change in the environment to remove barriers that the society presents to people with disabilities so as to enable them go about their day to day activities with least barriers. What the

SWDs need is opportunity to pursue an education, rather than pity and a blame on their conditions. Universities need to start viewing education as a human right, rather than a privilege and consequently provide for the learning needs of SWDs to enable them learn and succeed in their programs.

Universities should allow flexibility in their programs to enable SWDs to take the number of units that they can effectively handle per semester since some disabilities and conditions make it impossible to take the minimum prescribed in the University policies. HELB should also revise its policies to allow SWDs to take more than four years, whenever necessary, while still eligible for loan.

Responses to survey question on what difficulties the students' experiences at the universities indicated that these learners experience a wide range of difficulties, some students even reporting experiencing multiple difficulties. Since some of these impairments are not visible then it is likely that service providers do not cater for them in cases where students do not disclose them. It can consequently be implied that SWDs face multiple challenges that hinder them from pursuing their education at university. Though some of the students could be willing to disclose these difficulties, the universities lack a structure that encourages such disclosure.

Several interesting findings from the descriptive information of the participants and the survey questions have been presented above. First of all, it would be easy to think that the provision in the Bill of Rights in the Kenya Constitution (2010) in itself has created an environment that can accommodate the educational needs of SWDs but this is not true. The current status of policy and provisions for learning supports and accommodation for SWDs at higher education is

worrying as it indicates the level of unpreparedness of Public Universities to receive and provide for SWDs whose numbers are expected to continue increasing as more of learners in this category are expected to seek admission from high school following implementation of affirmative action policy and increased awareness of this group of learners of their constitutional rights and the value of higher education.

5.2 Study Conclusion

This study was undertaken to help enhance the effort of the Public Universities to provide accessible programs for individuals with disabilities.

This study finds that Public Universities lack functional policies on disability. Policies and procedures on enrolment, admission, recruitment, and accommodations are absent in the Public Universities. Thus, there is a lack of structure in addressing issues related to disability. Consequently SWDs face significant challenges in pursuit of higher education as they have to struggle to have their learning needs met. Public Universities provide very few accommodations to SWDs, and some of the devices provided are outdated. Technology to enhance learning for these students is almost absent in these institutions. Faculty members faced challenges due to lack of awareness on disability. Thus, they are unable to provide the necessary learning supports to this category of learners. The attitude towards SWDs is generally negative in the Public Universities and this hinders their learning and interaction with the university community. This is basically due to lack of awareness among faculty, non-disabled students and the university workforce in general. Participants discussed a continued need to struggle with the institutions of higher learning and lecturers for basic accommodations such as re-locating lectures to barrier free rooms for students who are wheelchair users, and providing information in other formats

such as Braille and large print. It would be more effective to serve learners at higher learning if a more inclusive structure of assistance, well coordinated to assist SWDs, lecturers administrators support staff and cohorts were established.

There are gaps between policy and provision of learning supports and accommodations for SWDs. as such this sub-population is disadvantaged as there is lack of equal opportunity in the learning institutions. Data also indicated lack of coordination in providing services to SWDs. There is therefore need to establish disability services offices in each of the public universities to address and coordinate all disability issues in these institutions. Disability services office need to improve procedures to facilitate student's disclosure of their disabilities to the service providers as well as to faculty. This would facilitate the service provider and the faculty to provide these learners with the needed learning supports.

Generally, the findings of the current study indicate that the status of provision for learning supports and accommodations for SWDs in Kenyan Public Universities has not changed much for a period close to two decades since UNESCO (1997) study. It can therefore be concluded that Kenyan Public Universities have not done much to improve the status of SWDs at higher education and this explains why most of the respondents in this study have largely cited negative experiences in these institutions of higher learning. These findings are alarming since for most SWDs, access to support services throughout their studies is critical to their ability to finish a program in postsecondary education. Clearly, the universities have not recognized the diversity of their student population as seen in their failure to apply the principles of universal design in their programs, policies and practices and the general campus environments. Ironically, Universities A and C recognize the need to apply these principles and state their commitment in

their disability policies. Actually, question remains: since faculty are not familiar with the philosophy of universal design as indicated by their responses in the e-learning survey, how do the universities hope to apply these principles in providing higher education to students enrolled in these institution, currently and those who will join later? The answer to this question by individual universities defines whether SWDs in these institutions will have positive or negative experiences at higher education, and generally, the degree of success in their academic journey.

Clearly, the Public Universities have hardly met the requirements of Section 54 of the Kenya Constitution (2010). The failure to comply with the legal requirements has far reaching implications on the education of SWDs as has been demonstrated in the findings of this study. Consequently, the universities must move with speed to put measures in place to ameliorate the negative impact of the current state of provisions for SWDs at higher learning. Towards this end, the study proposes a prototype of provision for SWDs in Kenyan Public Universities with emphasis on creation of an Access Division that will be responsible for effective provision of accommodations and related services to learners with special needs in institutions of higher learning. Implementation of the proposed model will go a long way in ensuring that SWDs access, persist, and successfully complete their programs at higher education.

5.3 Recommendations

The following recommendations stem out of the findings of the student survey, student focus groups, student, faculty and administrator interviews, as well as document analysis. The recommendations are designed to address the gaps in providing accommodations and related support services to SWDs within the higher education that were identified in this study. These

recommendations are aimed to improving post-secondary educational accommodations for SWDs. As earlier stated, provisions for SWDs are very critical for access, persistence, retention, and completion of academic courses at higher education. The findings of this study have demonstrated that these provisions are almost lacking in Kenyan Public Universities. This has profound implications for education of this category of learners. As expressed through their voices in the focus groups, interviews and the survey, these students had struggled and went through frustrating experiences that made them feel excluded as they sought provisions in the universities. They felt neglected, discriminated upon and denied their very basic right, the right to appropriate education. These voices of SWDs are very clear, that they feel disadvantaged as partakers in higher education in Kenya. They felt forgotten; they felt that nobody cared. Their academic journey was so unbearable that some of them were forced to drop out of school at one time or the other. It was a loud cry for urgent intervention; a cry for equal opportunity, indeed a cry for what is rightfully theirs as enshrined in the supreme law of the land, The Kenya Constitution (2010), an education that will open up job opportunities for them and consequently a decent life, a life of independence, a dignified life.

In view of the student's voices, and other respondents in this study, this study makes a number of recommendations to the Kenyan government and government agencies and to the Public Universities towards amelioration of the current situation of SWDs in Kenyan Public Universities with regard to provision of learning supports and accommodations. These are detailed below.

5.3.1 Recommendations to Kenyan Government and Government Agencies

- The government should expedite the revision and enactment of the PDA to align the Act with the Kenya Constitution (2010) and provide a comprehensive legal framework for provision of learning supports and accommodations to SWDs in higher education. In its current state, there are a number of silences regarding accommodations for SWDs particularly in higher education. Those of great concern in this study are what accommodations should be provided, to whom, when, how, by whom and the consequences for failing to provide them. As a result students with learning needs have continued to face very serious challenges in pursuit of higher education.
- Kenya Universities and Colleges Central Placement Service Admissions (KUCCPSA) should effectively apply affirmative action in selecting students to be admitted to Public Universities. All SWDs should be given opportunity to pursue programs of their choice as long as they meet the minimum requirements. The affirmative action should also be applied in choosing specific degree courses. Thus the affirmative action should also be applied with regard to cluster points in qualifying for those courses. KUCCPSA should also ensure that it admits SWDs to various Public Universities at the same time with their non-disabled peers to avoid unnecessary delays in reporting to the Universities and the anxiety associated with such delays on the part of SWDs.
- The Government should provide assistive tools, which are necessary in enabling SWDs get required information from courses and libraries. The students also want the government to allow duty free importation of AT to make them affordable to SWDs and to the Public Universities. The government also should provide adequate funding to

Public Universities to enable them provide accommodations and other auxiliary services to SWDs.

- The government needs to train personnel in areas of disability particularly assessment and AT to guarantee delivery of appropriate services to SWDs and that the right technology is acquired and maintained at higher education.
- The government should provide more and better funding to SWDs. This essentially means these students should be awarded higher loans than their non-disabled peers whose needs are fewer than for those with disabilities. This includes more funds for computers and assistive technologies. It also means streamlining the funding process and having funding offices more accessible or even making one agency responsible for all funding issues for SWDs. There is also a desire to make funding consistent throughout the country and award amounts depending on individual's needs as may be dictated by the type and extent of disability since some disabilities are more expensive to cater for than others. Setting up disability allowance fund is desirable, as this will guarantee availability of financial assistance for qualified individuals with disabilities. Respondents indicated that many staff in the funding agencies and the government do not understand the cycle of poverty and thus do not understand what is required to break free from it. They also felt that most of these staff do not understand disability issues hence they do not make appropriate decisions on how much an individual with a disability needs to be awarded in order to meet their financial obligations at higher education. Students with special learning needs want the financial support agencies to be more flexible regarding reduced course loads and the inability of some students to engage in part-time employment while

pursuing their studies. The students indicated a strong need for scholarships and these scholarships should be need-based rather than being awarded on academic or course load bases. The students also recommend that universities should introduce work-study programs where interested students could take up jobs in order to raise funds to enable them supplement for their disability related needs such as medication and purchase of personal assistive devices.

- Most students face enormous challenges in navigating higher education institutions due to lack of learning supports and related services. As earlier indicated, the range and type of services, supports, and accommodations, including technology provided to SWDs at in Public Universities varies widely across the universities. There is critical need to establish a minimum standard of quality of provision for all SWDs across these institutions of higher learning. Specifically this study recommends that this urgent need be addressed through the establishment and financial support to a National Technical Support Center (NTSC) to work with higher education institutions in the country. Considering the existing variations in the range and type of instructional and related services provided to SWDs, this technical assistance would support the establishment of a minimum national standard of support provision. The center would endeavor to establish a national standard of educational support provision across institutions of higher learning and could as well address the professional preparation of academic staff in universities. Minimum professional requirements for all academic and support staff could be established.
- The government should give funding to agencies to enable them produce instructional materials in formats other than print or create such an agency that will provide

instructional materials in appropriate formats, in case none currently exists. They felt strongly that something must be done urgently to encourage publishers to produce textbooks and materials in accessible formats. There is a need to enforce minimum standard of accessibility. This includes promoting and enforcing universal design principles in course materials. It also means the government should encourage institutions of higher learning to develop clear-cut policies and practices for working with SWDs. Students with disabilities should be involved in formulating such policies. These learners should give feedback on the policies and practices and the feedback should be enforced instead of being ignored.

- There is need to encourage inclusiveness in the work place as well. Learners with disabilities who want to go for attachment as part of their course requirement often have problems finding a place due to negative attitude within the society towards disability. The respondents expressed concerns that their education will not be of any benefit if they are unable to engage in after completing their studies. The government and institutions of higher learning, together with other agencies need to sensitize employers on disability issues.
- The government should appoint disability coordinators in the Ministry of Education to address disability related issues in higher education. Such a person should be trained in Special Education and have experience teaching in the university so as to be able to articulate disability issues at this level.

- Respondents indicated that there is need for the government to work with the high schools system to ensure that the transition between high school and higher education is seamless and that the planning occurs in a timely manner.
- Finally, SWDs say that the government cannot afford not to educate them despite of expenses. Without an education they would have to beg in the streets and thus become a burden to the state and other citizens and unable to contribute to society. These students have made it clear that they want to work and earn a decent wage.

5.3.2 Recommendations to Public Universities

In order to ensure effective provisions of accommodations and related services to SWDs at higher education, the current study makes the following recommendations to the institutions of higher learning

- Public Universities should formulate clear-cut disability policies that are consistent with the Kenya Constitution (2010) and the CRPD to ensure that SWDs are entitled to the required accommodations as mandated by the law. The policies should be reviewed as necessary to keep abreast with what is happening in other parts of the world. The following, among others, are the policy areas that require urgent consideration:
- To address issues related to recruitment and admissions, information about available services for SWDs should be made widely available to potential applicants and persons in contact with such applicants for example, high school career counselors. The Universities should create materials and/or advertisements detailing the types and range of services available and procedures for accessing the available services. These resources ought to be

disseminated to secondary schools, technical institutes, teacher training colleges and various disabled people's organizations. Similar information ought to be conspicuous in the universities' calendars and in any other publicity materials advertising the universities and the programs that they offer as well as in universities' websites. Staff from the universities ought to be among the team that visits high schools to seek applications from the Kenya Certificate of Secondary Education (KCSE) candidates for instance, during career awareness days. On the first meeting, the staff could explore with SWDs and any teacher in the schools who is knowledgeable in Special Education the types of accommodations that might be needed, for example, housing that is accessible on wheelchair, and the procedures for obtaining them, that is, the person to be contacted. A frank discussion during this initial meeting will be crucial regarding what types of supports and accommodations will be provided or will not be provided at the particular university the student may be interested to join.

- Universities should provide procedures that will assist students to know what services are available in the institution. To this end, the following suggestions are made:
- Students ought to be urged to disclose their disability before reporting to the university. They may provide this information as they apply for admission or once they have been accepted. Disability disclosure will facilitate provision of appropriate accommodations and other auxiliary services to these students. For "non-identified" SWDs on campus that is, deliberate effort ought to be put towards ensuring that individuals who interact with these students know where to refer them for help. Information regarding the services offered by the DSO ought to be provided in university publicity materials in accessible formats, for example, university newsletters, and websites.

- Each University should employ a full-time Director for the Accessibility Division. Such a person should be qualified in disability. The higher learning institutions should also employ Persons with Disabilities Act coordinator, who will ensure compliance with the accessibility requirements. Both these officers should be hired on a permanent and pensionable basis to ensure continuity of service provision. This study also recommends that Universities should hire staff who are qualified for Disability Office so that they are able to identify the needs of the students and create awareness among the staff of the university regarding the difficulties that their SWDs usually face.
- Universities ought to provide academic staff with adequate knowledge and skills in handling SWDs. This means Universities need to review their teacher training programmes to include inclusive education, and give particular emphasis on “Design for All” (European Institute for Design and Disability, 2009) rather than the traditional strategies in special education where teachers are prepared to handle only one particular category of disabilities. Lecturers in the universities should be better educated on disability needs and rights of accommodation; in turn, they need effective support to teach in a variety of learning styles and to make other appropriate adjustments. Training in universal design would go a long way in accomplishing this. The prevalence of negative attitudes towards and low expectations of SWDs was also a major topic of discussion, as a barrier to success of this category of learners in postsecondary education. National and institutional service providers can change these attitudes. Mentoring by the academic staff and help from other students would enormously promote success in higher learning for SWDs. Universities could tap on the said resources, especially where mentorship programs exist, for both students and lecturers. Diversity workshops and training for incoming students (“freshers”) should include disability issues. It would benefit the

education of all students to gain information about the necessity and potential availability of learning supports and accommodations for SWDs. The Ministry of Education in consultation with the higher education institutions should establish minimum standards. For the faculty already in the Universities, in-service training should be conducted to equip them with the necessary knowledge and skills. Such training should be made mandatory and incentives should be provided for undertaking the specialized training. Lecturers should be provided with the assistive tools that they require and options in student assessment and for evaluation.

- All Public Universities should audit the types, range and appropriateness of learning supports, accommodations and other services for SWDs regularly and continually to guarantee effective support for the students. Such audit ought to be a key component of institutions' internal review and should incorporate input of SWDs.
- In order to decrease students' reliance on services from the Accessibility Division, staff should assist the students towards achieving higher levels of autonomy, that is, to "empower" them to be able to advocate for themselves. The following approaches may assist in this process:
 - The Universities should provide funds to the Accessibility Division for the purpose of providing orientation programs for both incoming and continuing students. Specific courses for example, study skills courses, and other courses that stress self-advocacy and appropriate interactions with faculty and other university staff will be beneficial to all SWDs.
 - Universities should provide adequate financial support to service providers to enable them to provide more effectively support to SWDs. Sufficient budgetary allocations by

the university administration is necessary to enable hiring of necessary personnel and to acquire facilities required to meet the needs of students. In the eventuality that there is budgetary downsizing, the Disability Division personnel should be proactive to ensure that the proportion of funds allocated is not reduced to levels that would compromise the academic performance of the students. It is also important to ensure that whenever there is need to engage volunteer services in provision of the services, Disability Division staff induct them on how to work with SWDs.

- Universities should put into consideration the needs of SWDs in all deliberations related to physical infrastructure, instruction, testing and examinations as well as admissions.
- The Universities to address the need for qualified lecturers and support staff for SWDs in higher education institutions. University staff must get informed about the needs of SWDs.. The universities should regularly conduct in-service courses, seminars and workshops for all lecturers and support staff who lack training in this area. Sensitization of staff at all levels in universities is a key recommendation by SWDs. This included holding lecturers accountable for their actions. Students with disabilities have stated that too many lecturers do not know how to teach, since they had not received professional training in teaching. They were therefore ignorant in pedagogy.
- Universities should establish a team of specialists at institutional level to plan and conduct training, gather data, and prepare reports about SWDs. The members of this group should be knowledgeable in disability issues and dedicated in championing the course of SWDs.
- Students experienced great measure of stress and anxiety in accessing course information and needed learning supports. As such, it is necessary to empower students to be self-advocates,

both individually and as a group in instances where they encounter discriminatory practices. Moreover, there should be a staff member in each department to advance their rights. This would not mean students would be prevented from pressing for their rights, but it is recognition that individuals are needed to support students at various levels within the managerial pecking order. Such a position could be an augmentation of the coordinating role proposed by students and detailed above. An advocate could be immensely helpful in diminishing student stress levels and anxieties, and saving time when students encounter challenges in obtaining information. Failure to afford students equal opportunity amounts to denying them their human rights. In spite of the fact that there may not be clearly stated legal guidelines and that PWDs may not have full backing of the law, yet that is an unacceptable justification for failing to afford them equal rights on the same basis with peers without disabilities.

- Universities need to form stronger relationships with various agencies such as the Kenya Union of the Blind (KUB), Association for the Physically Disabled of Kenya (APDK) and the Kenya National Association of the Deaf (KSDC) and similar international agencies in order to keep abreast of the developments across the country and globally.

Below is a summary of policy areas that, among others, the Universities should give consideration.

Table 5.1: Policy Areas for Kenyan Public Universities to Address

Policy Area	Consider How to
Pre-entry, entry and admissions	<ul style="list-style-type: none"> • Recognize the obstacles to access. • Establish individual needs of students. • Inform prospective students about available

	<p>learning supports and accommodations.</p> <ul style="list-style-type: none"> • Encourage individuals to self disclose their disability as a desirable and rewarding option.
Physical access	<ul style="list-style-type: none"> • Apply universal design in construction of new buildings and general campus infrastructure. • Identify the architectural barriers in old buildings and barriers in general grounds and remove them. • Identify barriers that can be removed with little effort and take immediate measures. • Deconstruct existing obstacles instead of just getting ways to maneuver around them.
Teaching and Learning	<ul style="list-style-type: none"> • Foster universal design of courses, programs, and instruction, and clarify ideas of “fairness” in assessment. • Create awareness regarding the obstacles that result from unsuitable strategies. • Promote staff development on disability issues.
Support	Pastoral
	<ul style="list-style-type: none"> • Support the crucial functions of the Coordinator/Director of disability services. • Promote awareness of disability issues amongst staff. • Enhance communication amongst collaborating institutions, organizations and personnel. • Give required guidance pre-entry, during

	course, and pre-exit.
Finance	<ul style="list-style-type: none"> • Involve SWDs in work study programmes to supplement funding from HELB. • Assist SWDs to seek alternative sources of funding for instance, scholarships.
Technology	<ul style="list-style-type: none"> • Identify suitable and affordable assistive technology to aid students. • Develop and implement training programmes appropriate to the technology.
Monitoring	<ul style="list-style-type: none"> • Effectively evaluate provision for SWDs. • Incorporate students' input in procedures for monitoring of disability provision.

In order to facilitate implementation of the above recommendations for effective service delivery this research proposes a model for provisions of learning supports and accommodations to SWDs at higher education. This is detailed below.

5.4 Proposed Model of Provisions for SWDs in Higher Education

Findings from the responses of the participants in the current study indicated that the basic needs of SWDs in Kenyan Public Universities are: Accessibility to: interpersonal communication with the members of the university community, particularly the lecturers; housing/the general surroundings of the university; the printed or electronic instructional resources; the board and presentations in the lecture rooms; exams/tests; the information and online courses / WWW

content; guidance and counseling; extra-curricular activities, and representation in the university governance.

Data from the administrator survey also revealed that the universities do not have a unit that is responsible for the implementation of disability policies. In order for the universities to meet the aforementioned needs of SWDs, it is incumbent on these institutions of higher learning to create structures to effectively address these needs. The researcher therefore proposes creation of an Accessibility Division, which will facilitate access to academic studies for SWDs and address other needs of this group of learners while they pursue postsecondary education. This should be done through environmental modifications, provision of appropriate assistive technologies and access services. Towards this end, there is need for the universities to engage in thorough planning, put in place appropriate organizational structures, and recruit human resources with specific expertise. There will also be need for advanced technological support, concerted implementation effort, and effective evaluation to ensure efficient functioning of the division. The services of this division could be duplicated in campuses of the respective universities to ensure that SWDs enrolled in these campuses also receive appropriate supports and services. It is clear from the findings of this study that the Public Universities provision to SWDs is based on the long traditions of charity and medical models as opposed to the human rights approach envisaged in the Kenya Constitutions 2010) and the international conventions and agreements that Kenya is a signatory. One of these conventions is the Convention on The Rights of Persons with Disabilities (CRPD), which is fashioned after the social model of disability. As such, this research urges the universities to view disability through the social model lenses and apply the same to guide provisions for this category of learners. From this perspective, educators need to understand that as Goyal (2012) argues, “One size does not fit all”. The dominant teaching

traditional strategies and school environments are not suitable for every learner since learners are diverse, and so are their learning needs.

5.5 Areas for Further Research

The study of SWDs and their status in higher education is a quite recent area of investigation, globally and especially in Africa; therefore wide gaps in the knowledge base exist. In view of the findings of this study, several areas of further research emerged. These are listed below:

1. The experiences of SWDs should be assessed at all levels of the Kenyan education system. This should include the private educational institutions. The researcher believes that knowledge about LWDs and PWDs in Kenya is scarce. Therefore, it would be very essential to document thorough and systematic views and experiences of SWDs from their own perspectives, and placing them in the context of current developments in Kenyan system, particularly, in relation to Kenya Constitution (2010).
2. The current status of accommodating SWDs in pre-school, primary, secondary and other tertiary institutions should also be assessed. This should include private institutions as well as non-formal learning institutions. Data shows that only a few learners who have disabilities qualify to join higher education. This may imply that SWDs face insurmountable obstacles in their academic journey, right from the pre-school. Therefore, in order to assist policy makers in improving the learning conditions of this category of students, it is very crucial to assess the existing systems and their pitfalls starting from the lowest level.
3. Further, the study should assess the overall prevalence of SWDs in all levels of education in order to be able to plan for their provisions.
4. Accessibility of higher education e-learning programs for SWDs.

5. A study should be conducted on the expenses SWDS face, and the best ways to document them for financial aid officers. Studies are needed to evaluate college and HELB officers' preparation for working with SWDs; for instance, the extent of financial aid officer's familiarity with disability issues, and the funding sources available to SWDs, could be established. Finally, part of this research should include a comparative study of those SWDs who are challenged by their economic status or their family obligations and how this impacts their ability to meet the financial requirements of higher education.
6. Preparedness of faculty in Public Universities on how to teach SWDs.
7. Preparedness of primary and secondary school practicing teachers on how to teach SWDs.

REFERENCES

- Abery, B., & Stancliffe, R. (1996). The Ecology of Self-determination. In D.J. Sands & African Union of the Blind. State of Disabled Peoples Rights in Kenya (2007) Report. Retrieved March 25 2013 from <http://wecando.wordpress.com/2008/01/17/report-state-of-disabled-people%E2%80%99s-rights-in-kenya-2007/>
- Admon, Z. (2007). The right to accessibility in the international and Israeli legislation. In: D. Feldman, Y. Danieli Lahav, S. Haimovitz (Eds.). *The accessibility of the Israeli Society for Persons with Disabilities on the threshold of the 21st century*. Lapam Publication, Tel Aviv.pp.177-221
- African Union for the Blind (2007).The state of disabled peoples rights in Kenya. 2007 report. Retrieved March 27, 2015 from <http://www.yorku.ca/drpi/files/KenyaReport07.pdf>
- Ainlay, S., C., Becker, G., & Coleman, L., M. (1986). The dilemma of difference: A multidisciplinary view of stigma. New York: Plenum Press.
- Adelman, H., S. & Taylor, L. (2006). The implementation guide to student learning supports in the classroom and school wide: New directions for addressing barriers to learning. Thousand Oaks, CA. Corwin Press, Sage.
- Allan, J. (1999). Actively seeking inclusion: Pupils with special needs in mainstream schools. London: Falmer Press.
- Americans with Disabilities Act of 1990 - ADA: Public Law 101-336. Washington, D.C.: Government of the United States. Retrieved April 13, 2004, from: <http://www.usdoj.gov/crt/ada/adahom1.htm>
- Anambo, E. (2007).Library services to students with disabilities at the University of Nairobi: challenges and prospects. Unpublished Masters of Library and Information Studies Thesis, Kenyatta University.
- Appleby, Y. (1994). Out in the margins. *Disability and Society*, 9, 19–32.
- Baggett, D. (1994). *A study of faculty awareness of students with disabilities*. Paper presented at the annual meeting of the National Association for Developmental Education, Kansas City, MO. (ED 369 208)
- Benham, N., E. (1995). Faculty attitudes and knowledge regarding specific disabilities and the Americans with Disabilities Act. Unpublished doctoral dissertation, University of Southern Mississippi.
- Americans with Disabilities Act of 1990, Pub. L. No. 101-336, § 2,104 Stat. 328 (2000).

- Aslaksen, F. Bergh, S., Bringa, O., R., Heggem E., K. (1997). Universal design: Planning and design for all. The Norwegian State Council on Disability.
- Azorín, J., & Cameron M., R. (2010). The application of mixed methods in organizational research: A Literature review. *Electronic Journal of Business Research Methods*, 8, (2) 95 - 105.
- Babbie, E., R. (1995). The practice of social research (7th ed.). Belmont, CA: Wadsworth.
- Bafoe, M. (2013). Stigma, Discrimination & Marginalization: Gateways to oppression of persons with disabilities in Ghana, West Africa. *Journal of Educational and Social Research*. Retrieved August 20, 2016 from: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.653.906&rep=rep1&type=pdf>
- Bagentos S. (2004). The future of disability Law. 114 *Yale Law Journal* 1.
- Baglieri, S., & Shapiro, A. (2012). Disability studies and the inclusive classroom: Critical practice for creating least restrictive attitudes. New York: Taylor & Francis.
- Banister, P. Burman, E., Parker, I., Taylor, M. & Tindall, C. (1994). *Quality methods in Psychology*. Buckingham: Open University Press.
- Becker, G. & Arnold, R. (1986). Stigma as social and cultural construct. In S. Ainlay, G. Becker and L.M. Coleman, (eds.), the dilemma of difference: A multicultural view of stigma. New York: Plenum, 39-58.
- Beech, M. (2010). Accommodations: Assisting students with disabilities (3rd ed.). Retrieved from: <http://eric.ed.gov/?>
- Bell J. (1993). Doing your research project: A guide for first time researchers in educational and social sciences. Buckingham: Open University.
- Befring, E. (2004). Research methods, ethics and statistics. Oslo, Unipubforlag.
- Ben-Moshe, L. (2006). Infusing disability in the curriculum: The case of Saramago's "blindness". *Disability studies Quarterly*, 26 (2). Retrieved February 20 2012 from http://www.dsqsds.org/2006_spring_toc.html
- Bii, C., & Taylor, L. (2013). Inclusive education in Kenya: assessment report Kenya/Somalia program. Handicap international. Retrieved July 29, 2016 from: http://www.hiproweb.org/fileadmin/cdroms/Inclusive_Education2014/KenyaIEAssessmentReport2013.pdf
- Black, R., Smith, G., Chang, C., Harding, T., & Stodden, R., A. (2002). Provision of educational supports to students with disabilities in two-year postsecondary programs. *The Journal of Vocational Special Needs Education*, 24(2), 3-17.

- Black, K. (2010) "Business Statistics: Contemporary Decision Making" 6th edition, John Wiley & Sons
- Blood, G., Blood, I., Tellis, G., & Gabel, R. (2003). A preliminary study of self-esteem, stigma, and disclosure in adolescents who stutter. *Journal of Fluency Disorders*, 28(2), 143-159.
- Bogdan S., R. & Biklen, S., K. (2006). Qualitative research for education: an introduction to theories and methods. (5th ed.). Boston: Pearson.
- Brinckerhoff, L., C. (1994). Developing effective self-advocacy skills in college-bound students with learning disabilities. *Intervention in School and Clinic*, 29, 229-237.
- Bryman, A. (1987). Research Methods. London: Biddles.
- Burgstahler, Crawford, & Acosta (2001). Students with learning disabilities. *Intervention in School and Clinic*, 29 (4), 229-237.
- Burgstahler, S. (2007). Application of universal design in education. Seattle: University of Washington. Retrieved May 5, 2015 from: <http://www.washington.edu/doit/self-examination-how-accessible-your-campus>
- Butterwick, S., & Benjamin, A. (2006). The road to employability through personal development: A critical analysis of the silences and ambiguities of the British Columbia (Canada) life skills curriculum. *International Journal of Lifelong Education* 25, 75-78.
- Cäcilia Weiermair-Märki, Elisabeth, A., K. (n.d). EU4ALL: Initial report on market for adult learners with special needs. Retrieved on August 2, 2016 from: <http://eu4all-project.atosresearch.eu/sites/default/files/content-files/page/11/03/d143marketstudy.pdf>
- California Department of Justice. (2003). Legal rights of persons with disabilities. Retrieved on August 2, 2016 from: <http://oag.ca.gov/sites/all/files/agweb/pdfs/consumers/disabled.pdf>
- Campbell, J. and Oliver, M. (1996), Disability Politics: Understanding our past, changing our future. London: Routledge.
- Canadian Human Rights Act, RSC (1985).ch H-6, 13 (1) as amended.
- Cawthon, S., W. & Cole, E., V. (2010). Postsecondary students who have a learning disability: Student perspectives on accommodations access and obstacles. *Journal of Postsecondary Education and Disability*, 23(2) 112-128.

- Center for Applied Special Technology (CAST). (2002). Meeting diverse learner needs through universal design for learning. Retrieved from: <http://www.cast.org/udl/MeetingDiverseLearnerNeeds2519.cfm>
- Center for Autism Research and Children's Hospital. (2014). Retrieved June 27, 2016 from: <https://www.carautismroadmap.org/accommodations-in-higher-education/>
- Chalwe, M. & Desleighde, J. (2012). Globalizing Accessibility: drawing on the experiences of developing countries to enable the participation of disabled people in Zambia. *Disability and Society*, 27 (7).
- Chataika, T., McKenzie, J., Swart, E., & Cleophas, M. (2012). Access to education in Africa, responding to the United Nations Convention on the Rights of Persons with Disabilities. *Disability and Society*, 385- 394.
- Colker, R. & Grossman, P., D. (2013). The law of disability discrimination (8th ed.) New Jersey: Mathew Bender.
- Collins, K.M. (2003). Ability profiling and school failure: One child's struggle to be seen as competent. New Jersey: Lawrence Erlbaum Associates.
- Commission on Higher Education (1985). Status of universities. Retrieved from: <http://www.cue.or.ke/services/accreditation/status-of-universities>
- Commission for University Education (2016). The universities act, 2012. The National Council for Law Reporting. Retrieved from: www.kenyalaw.org/
- Crabtree, B., & Miller, W. (1999). A template approach to text analysis: Developing and using codebooks. In B. Crabtree & W. Miller (Eds.). *Doing qualitative research*. Newbury Park: CA: Sage.
- Creswell, J. O. (2003). *Research design: Qualitative, quantitative and mixed method approaches*. Thousand Oaks, California: Sage.
- Creswell, J.W., & Clark, V. L., P. (2011). *Designing and conducting mixed methods research*. Sage: California.
- Cuddihy, A., Fisher, R., Gordon, R., & Schumaker, E. (1994). C-Note: A computerized notetaking system for hearing impaired students in mainstream secondary education. *Information and Technology for the Disabled*, 1 (2): 45-52.
- Daniel, J. (2003). Education for All: Is Africa on track? *Association for the Development of Education in Africa Newsletter* 15, 2-3.

- Davidovitch, N. Schacham, S., & Margalit, D. D. (2012). Coping with learning disabilities in academic institutions: Experiences from Israel Academic Journal on disability and Human Development, 11, 43-48.
- Denzin, N.K. (1978). (2nd ed.). The research act: An introduction to sociological methods. New York: McGraw-Hill.
- Department of Education (1997). Education White Paper 3: A Programme for transformation of higher education. Retrieved August 20, 2016 from: http://www.che.ac.za/media_and_publications/legislation/education-white-paper-3-programme-transformation-higher-education
- Department of Education (2001). Education White Paper 6: Special Needs Education: Building an Inclusive Education and Training System. Retrieved August 20, 2016 from: <http://www.ajod.org/index.php/ajod/article/view/13/47>
- Department of Justice (1996). Nondiscrimination on the basis of disability by public accommodations and in commercial facilities rule, 28 C.F.R.§36.309.
- Disability Rights California. (2013). Rights of students with disabilities in higher education. Retrieved July 26, 2016 from: <http://www.disabilityrightsca.org/pubs/530901.pdf>
- Disability Rights Promotion International (DRPI). Systemic provisions to protect, promote and fulfill the human rights of people with disabilities in Kenya. Retrieved April 2nd, 2013 from: <http://drpiresearch.yorku.ca/>
- Dowrick, P.W., Anderson, J., Heyer, K., Acosta, J. (2005). Postsecondary education across the USA: Experience of adults with disabilities. *Journal of Vocational Rehabilitation*, 22, 41-47.
- Drake, A. I., Gray, N., Yoder, S., Pramuka, M., & Llewellyn, M. (2000). Factors predicting return to work following mild traumatic brain injury: A discrimination analysis. *Journal of Head Trauma Rehabilitation*, 15 (5), 1103-1112.
- DRPI (2007). Overview of the disability movements in Kenya. Retrieved July 29, 2016 from <http://drpidisability.apps01.yorku.ca/Africa/resources/KenyaRep07/Section3>
- Dutta, A., Scguri-Geist, C., & Kundu, M., (2009). Coordination of postsecondary transition services for students with disability. *Journal of Rehabilitation*, 75, (1) 10-17.
- Elliott, S.N., Kratochwill, T.R., & McKevitt, B.C. (2001). Experimental analysis of testing accommodations on the scores of students with and without disabilities.[Electronic version].*Journal of School Psychology*, 3, 3-24.
- Garland-Thomson, R. (1997). Extraordinary bodies: Figuring physical disability in American culture and literature. New York: Columbia University Press.

- Goffman, E. (1963). Stigma, notes on the management of spoiled identity. Retrieved September 22, 2016 from: <http://sociology.about.com/od/Works/a/Stigma-Notes-On-The-Management-Of-Spoiled-Identity.htm>
- Farbman, A. H. (1983). Case studies of university science faculty: Experiences with students with disabilities. Unpublished doctoral dissertation, George Washington University.
- Federsel, S. & Miesenberger, K. (2009). Navigation assistant for blind people to explore chemical formulas”, in: Emiliani, P., L., Burzagli, L., Como, A., Gabbanini, F., Salminen, A.: Assistive technology from adapted equipment to inclusive environments, proceedings of AAATE’09, IOS Press, Amsterdam.
- Finkelstein, V. (1980). Attitudes and disabled people: Issues for discussion. New York: World Rehabilitation Fund.
- Finn, L., L. (1997). Critical support services for college students with learning disabilities. Retrieved from: <http://files.eric.ed.gov/fulltext/ED412712.pdf>
- Fleury, A., E. (1993). Students' beliefs about Pascal Programming. *Journal of Educational Computing Research*, 9(3), 355-371.
- Fontana, A. & Frey, J. (2000). The interview: From structured questions to negotiated text. In N. Denzin and Y. Lincoln (Ed.s), *Handbook of qualitative research* (2nd Ed.), London: Sage: 645-72.
- Foundation of Tertiary Institutions of the Northern Metropolis (2011). Disability in higher education Project Report. Retrieved August 20, 2016 from: https://www.uct.ac.za/usr/disability/reports/annual_report_10_11.pdf
- Frank, K., & Wade, P. (1993). Disabled Student Services in Postsecondary Education: Who’s Responsible for what? *Journal of College of student Development*, 34, 26-34.
- Fuchs, L.S., Fuchs, D., Eaton, S., Hamlett, C.L., Binkley, M.E., & Crouch, R. (2000). Using objective data sources to supplement teacher judgment about reading test accommodations [Electronic version]. *Exceptional Children*, 67, 67- 92
- Fuchs, L., S. (2001). Helping teachers formulate sound test accommodation decisions for students with learning disabilities [Electronic version]. *Learning Disabilities Research & Practice*, 16, 174-181.
- Gajar, A. (1998). Postsecondary education. In F. Rusch & J. Chadsley (Eds.), *Beyond high school: Transition from School to work* (pp. 383-405). Belmont, CA: Wadsworth.

- Gallagher, D., J. (2006). On using blindness as metaphor and difficult questions: A response to Ben –Moshe. *Disability Studies Quarterly*, 26, (2), Retrieved from http://www.dsqsds.org/2006_spring_toc.html
- Gall, M.D., Gall, J., P., & Borg, W., R. (2003). *Educational research an introduction* (7th ed.). New York: Pearson Education, Inc.
- Geisinger, K., F. (1994). Psychometric issues in testing students with disabilities.[Electronic version]. *Measurement in Education*, 7, 121-140.
- Geisinger, K., F., & Carlson, J., F. (1995). Testing students with disabilities. ERIC Clearinghouse on counseling and students services: Greensboro, NC.
- Getzel, E., Stodden, R., & Brief, L. (2001). Pursuing postsecondary education opportunities for individuals with disabilities. In P. Wehman (ed.), *Life beyond the classroom: Transition strategies for young people with disabilities*. Baltimore, MD: Broodes Publishing.
- Gibson, J. (2005). Disability and clinical competency: An Introduction. *The California Psychologist*, November/December 2006.
- Gilson, C., L., Dymond, S., K., Chadsey, J., G., & Hsu, S., Y., F. (2007). Gaining access to textbooks for postsecondary students with visual impairments. *Journal of Postsecondary Education and Disability*, 20, 28-38.
- Gilson, C., L. (2010). From compliance to proactive accessibility: How small institutions create success. Paper presented at the annual meeting of the Association on Higher Education and Disability, Denver, CO.
- Gilmore, D., Bose, J., & Hart, D. (2001). Postsecondary education as a critical step towards meaningful employment: Vocational Rehabilitations role. *Research to Practice*, 7, 1-5.
- Ginsberg S. & Schulte, K. (2008). Instructional accommodations: impact of conventional vs. social constructivist view of disability. *Journal of the Scholarship of Teaching and Learning*, 8 (2) 84-81.
- Gladhart, M., A. (2010). Determining faculty needs for delivering accessible electronically delivered instruction in higher education. *Journal of Postsecondary Education and Disability*, 22 (3).
- Global campaign for education (2013). International law. Retrieved August 2, 2016 from <http://webcache.googleusercontent.com/search?>
- Goyal, N. (2012). One size does not fit all: A student's assessment of school. AERO

- Graham, P., Weingarden, S., & Murphy P. (1991). School reintegration: A rehabilitation goal for spinal cord injured adolescents. *Rehabilitation Nursing*, 6, 122-127.
- Guba, E. G., & Lincoln, Y.S. (1989). Fourth generation evaluation. Newsbury: Sage
- Guion, L., A., Diehl, D. C., & McDonald, D. (2011). Triangulation: establishing the validity of qualitative studies. University of Florida: IFAS Extension. Retrieved June 20, 2014, from <http://edis.ifas.ufl.edu/fy394>
- Harris, A. & Sue, E. (2003). Disability, equality and human rights: a training manual for development and humanitarian organizations. Retrieved from: <http://www.asksources.info/resources/disability-equality-and-human-rights-training-manual-development-and-humanitarian>
- Hatch, T. (1998). How comprehensive can comprehensive reform be? *Phi Delta Kappan*, 79, 518-522.
- Hativa, N., Barak, R., & Simhi, E. (1999, April). Expert university teachers: Thinking, knowledge and practice regarding effective teacher behaviors. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Quebec.
- Hativa, N. (2000). Becoming a better teacher: A case of changing the pedagogical knowledge and beliefs of law professors. Retrieved from: <http://link.springer.com/article/10.1023/A:1026521725494>
- Hehir, T. (2002). Eliminating ableism in education. *Harvard Educational Review*, (72), 1.
- Hehir, T. (2003). Beyond inclusion. *School Administration*, 60 (3), 36-39.
- Healy, M., & Perry, C. (2000). Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm. *Qualitative market research*, 3 (3), 118-126.
- HEATH Resource Center, (1992). Information from HEATH: Percentage of college freshmen with disabilities increases. Washington, DC: Author.
- HEATH (2003). Creating options: A resource on financial aid for students with Disabilities. Washington, DC: George Washington University, Graduate School of Education and Human Development. URL: <http://www.heath.gwu.edu/PDFs/2003%20Finaid%20Document.pdf> (Retrieved March 25 2013).
- HEATH Resource Center. (n.d). Students with disabilities in the college classroom. Retrieved August 2, 2016 from: <https://heath.gwu.edu/students-disabilities-college-classroom>

- Hegarty, S. (2000). Educating children and young people with disabilities: Principle and the review of practice. Retrieved on February 9, 2013 from: http://www.unescobkk.org/fileadmin/user_upload/appeal/IE/Publications_and_reports/Educating_with_disabilities.pdf
- Hinkle, D., E., Wiersma, W., & Jurs, S., G. (2003). (5th Ed.). Applied statistics for the behavioral sciences. Boston: Houghton Mifflin.
- Hirandani, V. (2005). Towards a critical theory of disability in social work) Critical Social Work, 6 Retrieved on August 18, 2016 from 1<<http://www.ctitalsocialwork.com>> accessed 2 May 2013.
- Hodgson, M. (1999). Experimental investigation of the acoustical characteristics of university classrooms. *Journal of the Acoustical Society of America*, 106, 1810- 1819.
- Holloway, S. (2001). The experience of higher education from the perspective of disabled students. *Disability and Society*, 16, 597-615.
- Hugh-Jones, S., & Smith, P. (1999). Self-reports of short- and long-term effects of bullying on children who stammer. *British Journal of Educational Psychology*, 69(2), 141-158.
- Hunt, P. (1966). A Critical condition. In Hunt, P. (ed.). Stigma: The experience of disability. London: Geoffrey Chapman.
- Ibiloglu, A. (2011). Kekemelik. *Psikiyatri eGuncel Yaklasimlar*, 3 (4), 704-728.
- Imperial Valley College (2011). Facts on the ADA, disability and accommodations. Retrieved August 20, 2016 from: <https://www.imperial.edu/students/dsps/information-about-disabilities/facts-on-the-ada-disability-and-accommodations/>
- Inbar, L. (1991). *Rehabilitation through high education*. National Insurance Institute of Israel- Research and Planning Administration. Retrieved from: <http://dsq-sds.org/article/view/1593/1561>
- Inbar, L. (2003). *Rehabilitation of people with disabilities and widows 2000-2001*. National insurance institute of Israel. Research and Planning Administration. Retrieved from: <http://dsq-sds.org/article/view/1593/1561>
- Individuals with Disabilities Education Act (IDEA), (1997). Retrieved from: <http://www.ed.gov/offices/OSERS/Policy/IDEA/index.html>
- International Classification of Functioning, Disability and Health (2016). A guide to the ICF at <http://www.3.who.int/k/icf>
- International Labour Organization. (2004). Promoting the employability and employment of people with disabilities through effective legislation. Retrieved from: <http://www.ilo.org/>.

- Izzo, M., V., Hertzfeld, J., E., & Aaron, J., H. (2001). Raising the bar: Student self-determination + good teaching = success. *Journal of Vocational Special Needs Educators*, 1-28.
- James, V., & Hammersley, M. (1993). Notebook computers as note-takers for handicapped students. *British Journal of Educational Technology*, 24, 63-66.
- Jomo Kenyatta University of Agriculture and Technology: JKUAT Campus: (2012). <http://www.jkuat.ac.ke/>
- Joppe, M. (2000). The Research Process. URL: <http://www.ryerson.ca/mjoppe/rp.htm>. Retrieved March 22, 2013).
- Kamundia E. (2010). Employment of persons with disabilities: A critical analysis of the persons with disabilities act 2003. Unpublished LLM thesis, University of Nairobi.
- Kaplan, D. (2004). World institute of disability. Mimeographed, Oakland, California.
- Kaye, H., S. (2000). Computer and Internet use among people with disabilities. Disability Statistics Report (13).
- Kelly, L., & Brown, L. (2002). A profile of college classroom acoustics. Poster presented at the annual summer institute of the Academy of Rehabilitative Audiology, Asheville, NC
- Kenyatta university (2012). KU Campus: <http://www.ku.ac.ke/>
- Kendall, E., & Terry, D., J. (1996). Psychosocial adjustment following close head injury: A model for understanding individual differences and predicting outcome. *Neuropsychological Rehabilitation*, 6 (2), 101-132.
- Kenya Human Rights Commission (2014). The Internet legislative and policy environment in Kenya. Retrieved from: <http://webcache.googleusercontent.com/search?>
- Kenyatta University. KU honoured with ability award. *Newsletter.vol.7. Issue 10*.
- Kenyatta University. (2014). Financial aid office. Retrieved May 4, 2015 from <http://www.ku.ac.ke/fao/index.php/faq-s>
- Kenyatta University. (2005). Strategic and vision plan, 2005-2015. Nairobi: Kenyatta University Press.
- Kenya Government. (2003). Persons with disabilities act. Nairobi: Government Printers.
- Kenya Government, Ministry of Planning and National Development. (2008). Kenya National Survey for Persons with Disabilities: Preliminary Report. Retrieved March 24,

2015 from: <http://www.afri-can.org/CBR%20Information/KNSPWD%20Prelim%20Report%20-%20Revised.pdf>

- Kenya Government. (2010). *The Constitution of Kenya (2010)*. Nairobi: National Council for Law Reporting. Retrieved from: www.kenyalaw.org.
- Kenya Government, Ministry of Education & Ministry of Higher Education, Science & Technology. (2012). *A policy framework for education and training: Sessional Paper No....of2012*. Retrieved June 4, 2015 from http://www.strathmore.edu/pdf/sessional_paper_19th_june_nqf.pdf
- Kiernan, W. (2002). Service integration trends, practices and challenges from a systemic perspective. Paper presented at the National Capacity Building Institute Coordination and Management of Supports and Services. Boston, MA.
- Klaus, J. Studying sciences as a blind person challenges to AT/IT. 2nd International Conference Education for All, Warsaw, 2009. 2010. 9
- Kochung, E. (2003). Report of the task force on special education appraisal exercise; Nairobi, Ministry of Education, Science & Technology.
- Kochung E., J. (2011). Role of higher education in promoting inclusive education: Kenyan perspective. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)* 2(3): 144-149. Scholarlink Research Institute Journals, jeteraps.scholarlinkresearch.org
- Kroeger, S., & Schuck, J. (1993). Moving ahead: issues, recommendations, and conclusions: new directions for student services, 64, 103-110.
- Kouroupetroglou, G., & Kaccori, H. "Deriving accessible science books for the blind students of physics", in *Proceedings of the 7th International Conference of the Balkan Physical Union*, Published by the American Institute of Physics (AIP), Vol. 1203(1), pp. 1308-1313.
- Lancaster, S., Mellard D., & Hofman L. (2001). Experiences of students with disabilities in selected community and technical colleges. Retrieved July 10, 2012 from <http://files.eric.ed.gov/fulltext/ED452617.pdf>
- Lancaster, S., Mellard, D., & Krueger, M. (n.d.). Disability services program: facts on ADA, disability, and accommodations. Retrieved June 27, 2016 <https://www.imperial.edu/students/dsps/information-about-disabilities/facts-on-the-ada-disability-and-accommodations/>
- Lanier, J. (2010). *You are not a gadget: A manifesto*. Retrieved May 9, 2015 from [http://r-u-ins.org/resource/pdfs/YouAreNotAGadget-A_Manifesto.pdf\(1st ed.\)](http://r-u-ins.org/resource/pdfs/YouAreNotAGadget-A_Manifesto.pdf(1st%20ed.)). New York: Alfred A. Knopf.

- Laron, E. (2005). "Laron" report of the public commission to examine matters relating to persons with disabilities and to promote their integration into the community.
- Leyser, Y., Vogel, S., Wyland, S., & Brulle, A. (1998). Faculty attitudes and practices regarding students with disabilities: Two decades after implementation of Section 504. *Journal of Postsecondary Education and Disability, 13*.
- Lightfoot, E., & Gibson, P. (2005). Universal instructional design: a new framework for accommodating students in social work courses. *Journal of Social Work Education, 41* (2).
- Mace, R., L. (1998). A perspective on universal design. An edited excerpt of a presentation at Designing for the 21st Century: An International Conference on Universal Design. Retrieved from: www.adaptenv.org/examples/ronmaceplenary98.php
- Macha, E., Kieti, M., & Ngunyi, M. (2007). State of Disabled People's Rights in Kenya Report. Retrieved January 20, 2008, from <http://www.bluegecko.org/kenya/>
- Marschark, M. Sapere, P., & Convertino, C. (2005). Access to postsecondary education through sign language interpreting. *Journal of Deaf Studies and Deaf Education, 10*(1), 38-50.
- Marschark, M., Leigh, G., & Sapere, P. (2006). Benefits of sign language interpreting and text alternatives for deaf students/ classroom learning. *Journal of Deaf Studies and Deaf Education, 11*(4) 421-437
- Martin, J. E., Marshall, H., L. (1995). ChoiceMaker: A comprehensive self-determination transition program. *Interventions in School and Clinic, 30*(3), 147-156.
- Maryellen, W. (1990). Improving college teaching: strategies for developing instructional effectiveness. San Francisco: Jossey-Bass
- Mayat, N. (2007). Perceptions of academic staff towards accommodating students with disabilities in a civil engineering undergraduate program in a university in South Africa. Retrieved from: <https://www.google.com/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF->
- McAlexander, P. (2004). Using principles of universal design in college composition courses: Review of Reviewed Item. Basic Writing e-Journal, 1. Retrieved from <http://www.asu.edu/clas/english/composition/cbw/BWESpring2004.html>.
- McDonnell, L., M., McLaughlin, M., W., & Morison, P. (1997). Educating on and all: Students with disabilities and standards-based reform. Washington, DC: National Academy Press.

- McGeary, D.D., Mayer, T.G., Gatchel, R.J., Anagnostis, C., & Proctor, T.J., (2003). Gender related differences in treatment outcomes for patients with musculoskeletal disorders. *The Spine Journal*, 3 (3), 197-203.
- McLeary-Jones, V. (2007). Learning disabilities in the community college and the role of disability services department. *Journal of cultural diversity*, 14, 43-47.
- Michigan Disability Rights Coalition (n.d). Models of disability. Retrieved June 21st, 2016 from: <http://www.copower.org/leadership/model-of-disability>
- Miles M., B, Huberman, M. (1994). *Qualitative data analysis: A sourcebook of new methods*. CA: Sage.
- Miller, R., J., Lombard, R., C., & Hazelkorn, M., N. (2000). Teacher attitudes and practices regarding the inclusion of students with disabilities in school-to-work and technical preparation programs: Strategies for inclusion and policy implications. In D. R. Johnson & E. J. Emanuel (Eds.), *Issues influencing the future of transition programs and services in the United States* (pp. 127-136). Minneapolis, MN: University of Minnesota, Institute on Community Integration, National Transition Network.
- Millet P. (2009). Accommodating students with hearing loss in a teacher of the deaf/hard of hearing education program. *Journal of Educational Audiology*.15. Retrieved August 26, 2016 from: <http://www.edaud.org/journal/2009/9-article-09.pdf>
- Ministry of Education, Science & Technology. (2004). Development of education in Kenya. Retrieved March 25, 2013 from <http://www.google.com/url?sa=t&rct=j&qwww.ibe.unesco.org%2FInternational%2FICE47%2FEnglish%2FNatrep%2Freports%2Fkenya>.
- Ministry of Education Science and Technology. (2005). Kenya education sector support programme 2005 - 2010. Delivering quality education and training to all Kenyans. Retrieve March 25, 2013 from <http://www.washdoc.info/docsearch/title/162092>.
- Ministry of Education & Ministry of Higher Education, Science & Technology. (2012). A policy framework for education aligning education and training to the Constitution of Kenya (2010) and Kenya Vision 2030 and beyond. Retrieved March 25, 2013 from <http://www.elimuyetu.net/downloads/Policy%20Framework%20For%20Education%20Paper.pdf>
- Mont, D. (2007). Measuring disability prevalence. The World Bank. Retrieved from: <http://siteresources.worldbank.org/DISABILITY/Resources/Data/MontPrevalence.pdf>

- Morumbasi, M., Mbatia, P., N., Tororei, S., Kamau, P., M., & Burugu, S., K. (2007). A study of methods and processes for improving the quality of life of persons with intellectual disabilities: Kenyan national report. Retrieved February 11, 2008, from www.inclusion-international.org/site_uploads/File/KenyanNationalReport-Fullversion.pdf
- Mpofu, E. & Wilson, K. (2004). Opportunity structure and transition practices with students with disabilities: The role of family, culture, and community. *Journal of Applied Rehab Counseling*, 35, 9-16.
- National Coordinating Agency for Population and Development & Kenya National Bureau of Statistics (2008). Kenya national survey for persons with disabilities: Main Report. Retrieved March 15 from <http://www.google.com/url?sa>
- National Council on Disability (2003). People with disabilities and postsecondary education. Retrieved May 29, 2015 from: <http://www.ncd.gov/publications/2003/Sept152003>
- NCD (2000). National Disability Policy. A Progress Report. November 1, 1998 - November 19, 1999. URL: <http://www.ncd.gov/newsroom/publications/1999/policy98-99.htm> (Retrieved on March 25, 2013).
- NCES (2000). Trends in educational equity for girls and women (NCES Publication No.: 2000-030). Washington, D.C.: U.S. Government Printing Office. URL. www.nces.ed.gov
- NCSPES (2002). Preparation for and support of youth with disabilities in postsecondary education & employment: Implications for policy, priorities and practice. Proceedings and briefing book for the National Summit on Postsecondary Education for People with Disabilities, presented in Washington, DC, July 8, 2002. <http://www.ncset.hawaii.edu/summits/july2002/default.htm> (Retrieved on February 13, 2013).
- NCSPES (2000). National survey of educational support provision to students with disabilities in postsecondary education settings. A Technical Report June 2000. Honolulu, HI, University of Hawai'i at Manoa. Retrieved on August 20, 2016 from: <http://files.eric.ed.gov/fulltext/ED454679.pdf>
- Ndurumo M., M. (1993). Exceptional children: Developmental consequences and intervention. Nairobi: Longman Kenya.
- NEADS (2015). Working towards a coordinated national approach to services, accommodations and policies for post-secondary students with disabilities. Retrieved June 3, 2015 from http://www.neads.ca/en/about/projects/nasp/nasp_intro.php
- Nedeljkovic, N. (2016). Assistive technology makes education inclusive. Retrieved from: <http://www.matific.com/us/en-us/blog/2016/06/20/assistive-technology-makes-education-inclusive/>

- Ngulu, J. (2012). The Kenya's persons with disabilities act No. 14 of 2003: A case for compliance of the act with the constitution of Kenya 2010 and international law. LLM thesis. University of Nairobi.
- ODI (2009). Research tools: Focus group discussions. Retrieved March 13, 2015 from <http://www.odi.org/publications/5695-focus-group-discussion>.
- Oliver, M. (1990). *The politics of disablement*. Macmillan: Basingstoke.
- Oliver, M. (1996). *Understanding Disability: From theory to practice*. Macmillan: Basingstoke, Hampshire.
- Office of the High Commissioner For Human Rights. (2011). National Report. <www2.ohchr.org/SPdocs/.../CRPD.C.KEN.1-en.doc> accessed 16 June 2013.
- Office of Special Education and Rehabilitative Services (2000). IDEA lessons for all! Retrieved March 31, 2015, 2000 from <http://www.ed.gov/offices/OSERS/IDEA25th/>
- Oklahoma State University-Tulsa (n.d). Student disability services. Retrieved August 26, 2016 from <https://www.osu-tulsa.okstate.edu/future/about.php>
- Opini, B. (2012). Examining the motivation of women students with disabilities participation in university education in Kenya. *Journal of Postsecondary Education and Disability*, 25 (1), 65 – 79.
- Oved, M. (2007). Assistive technology for blind people and people with low vision. In: D. Feldman, Y. DanieliLahav, S. Haimovitz (eds.). *The accessibility of the Israeli Society for Persons with Disabilities on the threshold of the 21st century*. Lapam Publication, pp. 919-926.
- Palombi, B. (2000). Recruitment and admission of students with disabilities: New directions for student services, 91, 31-39.
- Palombi, B., J. Recruitment of students with disabilities in: Holley, A. Belch (ed.). (2011). *Serving students with disabilities*. San Francisco: Jossey-Bass.
- Patton, M., Q. (1990). *Qualitative evaluation and research methods* (2nd. ed.). Newbury Park, CA: Sage.
- Plessis, L., & Eck S. (2011). Protection of disabled employees in South Africa: an analysis of the constitution and labour legislation' in Lize Plessis and Tobias Reemen (eds), *Aspects of disability law in Africa*. Pretoria University Law Press: Pretoria.
- Quinn, G. & Waddington, L. (2009). *European yearbook of disability law*. Oxford: Hurt.

- Ragosta, M., & Wendler, C. (1992). Eligibility issues and comparable time limits for disabled and nondisabled SAT examinees (Report 92-5). New York: College Entrance Examination Board.
- Ramot, A., & Feldman, D. (2003). *Providing accessibility of the Hebrew University for people with disabilities, HarHatzofim campus, Jerusalem*. Shekel — community services for the disabled, the Israeli center for accessibility
- Raue, K., & Lewis, L (2011). Students with disabilities at degree-granting postsecondary institutions. Washington D.C: U.S. Government Printing Office.
- Reed, M., J. (2010). Access to and Success in post-secondary education for students with visual impairment and blindness. CNIB Conference. October 2010, Toronto, Ontario Retrieved August 20, 2016 from: [http://www.cacuss.ca/Library/Resources/Vision impaired students Reed executive summary.pdf](http://www.cacuss.ca/Library/Resources/Vision%20impaired%20students%20Reed%20executive%20summary.pdf)
- Rehabilitation Act of 1973, USC 34 C.F.R. § 104.3 (1) (3). Retrieved from: <http://www2.ed.gov/policy/rights/reg/ocr/edlite-34cfr104.html#3>
- Rehabilitation Act of 1973, USC 34 C.F.R. § 104.42 (c). Retrieved from: <http://www2.ed.gov/policy/rights/reg/ocr/edlite-34cfr104.html#3>
- Rehabilitation Act of 1973, USC 34 C.F.R.' 104.45. Retrieved from: <http://www2.ed.gov/policy/rights/reg/ocr/edlite-34cfr104.html#3>
- Rehabilitation Act of 1973, USC 34 C.F.R. ' 104.46. Retrieved from: <http://www2.ed.gov/policy/rights/reg/ocr/edlite-34cfr104.html#3>
- Republic of Kenya. MOE. (2009). The national special needs education policy framework, final draft. Retrieved March 28 from javascript: __doPostBack('ctl00\$mainContentPlaceHolder\$btnDocumentDownload',")
- Republic of Kenya, MOE. Report of the task force on the re-alignment of the education sector to the Constitution of Kenya 2010: Towards a globally competitive quality education for sustainable development. February 2012. Retrieved march 31st 2013 from: <http://www.google.com/url?sa=>
- Republic of South Africa. (1997). White Paper on an Integrated National Disability Strategy. Office of the Deputy President.
- Rimmerman, A., & Araten-Bergman, T. (2005). Legislation of handicapped rights and its implementation in Israel — Trends and future directions. *Social Security Journal*, 69, 11-31.

- Robson, C. (2002). *Real World Research: A Resource for social scientists and practitioner-researchers*. Oxford: Blackwell.
- Rose, D., H., & Meyer, A. (2002). *Teaching every student in the digital age: Universal design for learning*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Rose, D., Meyer, A., & Hitchcock, C. (2005). *The universally designed classroom*. Cambridge, MA: Harvard Education Press.
- Rose, D., H., & Meyer, A. (Eds.). (2006). *A practical reader in universal design for learning*. Cambridge, MA: Harvard Education Press.
- Ross, E. (2001). A social work perspective on stuttering. *Social Work/Maatskaplike Werk*, 37(1), 35–42.
- Rosenfeld, S., J (2002). Section 504 and IDEA: Basic similarities and differences. *Learning Disabilities Online*. Retrieved from http://www.ldonline.org/ld_indepth/legal_legislative/edlaw504.html
- Sandelowski, M. (2000). Focus on research methods: Combining qualitative and quantitative sampling, data collection and analysis techniques in mixed-method studies. *Nursing and Health*, 23, 246-255.
- Sasson, R., Grinshpoon, A., Lachman, M., & Bony, O. (2003). Supported education for mentally disabled people: Programs and operational objectives. *The Israeli Journal of Occupational Therapy*, 12 (3).
- Scott, S., McGuire, J., M., & Embry, P. (2002). *Universal design for instruction fact sheet*. Storrs: University of Connecticut, Center on Postsecondary Education and Disability.
- Shapiro, A. (1999). *Everybody belongs: Changing negative attitudes towards classmates with disabilities*. New York: Routledge.
- Shaw, S. F., Scott, S. S., and McGuire, J. M. (2001). *Teaching college students with learning disabilities*. Retrieved from: <http://files.eric.ed.gov/fulltext/ED459548.pdf>
- Shriner, J., G. (2000). Legal perspectives on school outcomes assessment for students with disabilities [Electronic version]. *Journal of Special Education*, 33, 232-239.
- Siegel, S., & Sleeter, C., E. (1991). Transforming transition: Next stages for the school- to- work transition movement. *Career Development for Exceptional Individuals*, 14(1), 27-41.

- Sifuna, D., N. (1998). The governance of Kenyan public universities. In: Research in post-secondary education, (3) 2.
- Spiers, E., & Hammett, R. (1995). Students who are deaf-blind on campus. HEATH Resource Centre Document No. ED393252. Washington, DC: American Council on Education.
- Stodden, R., A. (2001). Postsecondary education supports for students with disabilities: A review and response. *The Journal for Vocational Special Needs Education*, 23(2), 4-11.
- Stodden, R., A., Conway, M.D., & Chang, K., B. (2003). Discussion paper: Professional employment for individuals with disabilities. Center on Disability Studies, University of Hawaii at Mania. Retrieved March 22, 2013 from www.ncset.hawaii.edu/institutes/feb2003/papers/pdf/
- Stodden R.A, Roberts, K. D., Picklesimer, T., Jackson, D., & Chang, C. (2006). An analysis of assistive technology supports and services offered in postsecondary educational institutions. *Journal of Vocational Rehabilitation*, 24, 111-120.
- Stover, D., & Pendergraft, N. (2005). Revisiting ComputerAided Notetaking technological assistive devices for hearing impaired students. *Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 79(2), 94-
- Student Development & Counseling Center. (2008). A resource Manual for faculty: services for students with disabilities. Retrieved August 20, 2016 from: <http://www.lsus.edu/Documents/Offices%20and%20Services/Student%20Development%20and%20Counseling%20Center/facultymanual.pdf>
- South African Government (2016).The Constitution of the Republic of South Africa, 1996. Retrieved August 20, 2016 from: <http://www.gov.za/documents/constitution/Constitution-Republic-South-Africa-1996-1>
- Tagayuna, A., Stodden, R. A., Chang, C., Zeleznik, M. A., & Whelley, T. A. (2005). A two-year comparison of support provision for persons with disabilities in postsecondary education. *Journal of Vocational Rehabilitation*, 22, 13-21.
- Teachability Project. (2002). University of Strathclyde. URL: http://www.teachability.strath.ac.uk/chapter_1/tableofcontents1.html Retrieved on 17 February 2013.
- Tesemma, S. (2012).A Critical analysis of the law and policy on the education of disabled children in South Africa. Unpublished D. Phil thesis, University of South Africa.

- Thurlow, M., & Bolt, S. (2001). Empirical support for accommodations most often allowed in state policy (Synthesis Report 41). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.
- Tinklin, T., & Hall, J. (1999). Getting round obstacles: disabled students experiences in education in Scotland. *Studies in Higher Education*, 24 (2), 183.
- Tinklin, T., & Hall, J. (1998). The experiences of disabled students in higher education. Retrieved August 2, 2016 from <http://dspace.gla.ac.uk:8080/bitstream/1905/238/1/085.pdf>
- Tinklin, T., Riddell, S., Alastair, W., (2004). Policy and provision for disabled students in higher education in Scotland and England: The current state of play. *Studies in Higher Education*, (29), 5. Retrieved march 23, 2012 from <http://www.tandfonline.com/doi/pdf/10.1080/0307507042000261599>
- Taylor, S. J. & Bogdan, R. (1998). Introduction to Qualitative Research Methods. New York: John Wiley.
- The Convention on the Rights of the Child (1989). Retrieved 15th March 2013 from <http://www.unicef.org.uk/UNICEFs-Work/Our-mission/UN-Convention/>
- The Declaration on the Rights of Disabled Persons (1975). Retrieved 30th February 2013 from <http://www.unhchr.ch/html/menu3/b/72.htm>
- The European Institute for Design and Disability. (2009). The EIDD Stockholm Declaration 2004. Adopted on 9 May 2004, at the Annual General Meeting of the European Institute for Design and Disability in Stockholm. Retrieved 7 May 2015 from <http://www.designforalleurope.org/Design-for-All/EIDD-Documents/Stockholm-Declaration/>
- Thomas, S., B. (2000). College students and disability law. *The Journal of Special Education*, 33 (4), 248-257.
- Thurlow, M., L. (2001). Secondary education standards and academic preparation. National Centre on Education and Transition. URL: <http://www.ncset.hawaii.edu/institutes/feb2003/speakers/speaker03.htm> Retrieved on March 16 2013.
- Tirusew, T. (2006). An overview of the development of inclusive education in the last fifteen years in Ethiopia. In: Savolainen, M. Matero & H. Kokkala (Eds). When all means all: Experiences in three African countries with EFA and children with disabilities. Ministry of Foreign Affairs of Finland, Development Policy Information Unit, pp.58-68. UNESCO 2001.
- Titchkosky, T. (2003). Disability, self and society. Toronto: University of Toronto Press.

- Tomlinson, C., A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: Association for curriculum Development.
- Tompkins, C. H. (1996). *A critical ethnography of disability in women's lives*. Unpublished doctoral book, University of California, San Francisco.
- The Center for Universal Design. (2008). *Accessibility requirements and standards: ADA standards tech sheet*. Retrieved August 20, 2016 from: https://www.ncsu.edu/ncsu/design/cud/pubs_p/pfedstate.htm
- UCLA Center. (n.d). *What are learning supports?* Retrieved July 26, 2016 from: <http://smhp.psych.ucla.edu/pdfdocs/whatlearnsupports.pdf>
- UNESCO. (1990). *The world declaration on education for all*. Retrieved March 20 2013 from <http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-all/policy-dialogue/>
- UN Commission on Human Rights in (1947). *The universal declaration of human rights (1948)*. Paris, 10 December 1948.
- UN (1994). *The standard rules on the equalization of opportunities for persons with disabilities*. Retrieved March 25 2013 from <http://www.un.org/disabilities/documents/gadocs/standardrules.doc>
- The UN Convention on the Rights of Persons with Disabilities (2007). Retrieved 15th march 2013 from <http://www.un.org/disabilities/default.asp?navid=14&pid=150>
- UNESCO. (1994). *The Salamanca statement and framework for action on special education*. Salamanca, Spain, 7-10 June 1994. Retrieved March 25 2013 from <http://www.google.com/url?sa=t&rct=j&q>
- UN. *The World education forum*. (2000). 26-28 April 2000. Dakar, Senegal. Final report.
- UNESCO (1997). *Disabled students at universities in Africa*. Harare: UNESCO. Retrieved May 7, 2015 from <http://unesdoc.unesco.org/images/0011/001102/110282Eo.pdf>
- UNESCO. (1999). *Provision for students with disabilities in higher education*. UNESCO. Retrieved May 7, 2015 from <http://unesdoc.unesco.org/images/0012/001287/128761eo.pdf>
- United Nation Convention on the Rights of Persons with Disabilities (CRPD). (2006) Retrieved from: <http://www.un.org/disabilities/default.asp?navid=13&pid=150>
- United Nations Handbook for Parliamentarians on the CRPD. Retrieved from www.un.org/disabilities/default.asp?id=212 accessed August 1, 2016

- UNESCO, (2014). From exclusion to empowerment: Role of ICTS for persons with disabilities. A press release. Retrieved May 9, 2015 from http://www.unesco.org/new/en/media-services/single-view/news/from_exclusion_to_empowerment_role_of_icts_for_persons_with_disabilities/back/9597/#.VU3oized6fQ
- University of Nairobi: Main Campus (2012): <http://www.uonbi.ac.ke/>
- UPIAS (1976). Fundamental principles of disability. Summary of the discussion held on 22nd November 1975. London, Union of Physically Impaired Against Segregation.
- Urunji Child-Care Trust. (2016). Understanding albinism in the classroom. Retrieved August from: <https://www.urunjichildcare.org/de/%C3%BCber-uns/urunji-blog/197-understanding-albinism.html>
- U.S. Department of Education. (1999). Twenty-first annual report to Congress on the implementation of the Individuals with Disabilities Education Act. Retrieved March 22 2013, from <http://www.ed.gov/about/reports/annual/osep/1999/index.html>
- U.S Department of Education (2007). Disability employment 101: Appendix IV: Reasonable accommodations and the ADA. Retrieved August 26, 2016 from: <http://www2.ed.gov/about/offices/list/osep/products/employmentguide/appendix-4.htm>
- U.S. Department of Education. (2007). Students with disabilities preparing for postsecondary education: know your rights and responsibilities. Retrieved from: <http://www2.ed.gov/about/offices/list/ocr/transition.htm>
- Vickerman. P., & Blundell, M. (2010). Hearing the voices of disabled students in higher education. *Disability and Society*, 25 (1). Retrieved August 20, 2016 from: <http://www.tandfonline.com/doi/abs/10.1080/09687590903363290?journalCode=c dso20>
- Ward, D., & Scott, K. (2011). Cluttering: A handbook of research, intervention and education. New York: Psych Press.
- Wawire, V., Elarabi, N., & Mwanzi, H. (2010). Higher education access and retention opportunities for students with disabilities: strategies and experiences from selected public universities in Egypt and Kenya. In D. Obst, A. Ricketts, and D. Somers (Eds.), African Higher Education collaborative. Higher education in Africa: Equity, access, opportunity, pp.117-134. Newyork: The Institute of International Education.

- Wehmeyer, M., L. (2006). Self-determination across the life span: Independence and choice for people with disabilities. In: M.D Paul H, Adams & Brown. (Pp. 111-145). Baltimore.
- Weiss, R., E. (2005). Modeling longitudinal data. Springfield: New York.
- West, M., Kregel, J., Detzel, E. E., Zhu, M., Ipsen, S. M., & Martin, E. D. (1993). Beyond section 504: Satisfaction and empowerment of students with disabilities in higher education. *Exceptional Children*, 59, 456-467.
- Whelley, T., Hart, D., & Zafft, C. (2002). Coordination and management of services for individuals with disabilities in the transition from secondary to participation in postsecondary education and employment. Paper presented at the Capacity Building Institute, Honolulu, HI.
- Whelley, T. (2002). One example of a policy entrepreneur in postsecondary education. *Disability Studies Quarterly*, 22(4), 224-229.
- Willingham, W.W., Ragosta, M., Bennett, R., E., Braun, H., Rock, D.A., & Powers, D.E. (Eds.). (1988). Testing handicapped people. Needham Heights, MA: Allyn & Bacon.
- Wilson, K. (2006). Services for deaf children in Kenya: Report from a visit to Kenya on March 2006. Retrieved February 20, 2013 from 9 www.idcs.info/docs/Services_for_deaf_children_in_Kenya.pdf
- Wilson, K. E., & Getzel, E. E. (2001). Creating a supportive campus: The VCU Professional Development Academy. *Journal of Vocational Special Needs Education*, 23 (2), 12-18.
- Wonacott, M. (2002). Vocational rehabilitation. *Trends and Issues Alert*, 31, 1-2. Retrieved March 27, 2015 from <http://www.ncd.gov/publications/2003/Sept152003>
- Woodford, C., Prichard, C., & Jones, R. (1998, Fall). Listening conditions in higher education classrooms: One method of improving them. *Education*, 129.
- Wood, W., M., & Test, D., W. (2001). Wood, W. M., & Test, D. W. (2001). Self-determination synthesis project: Final performance report. Charlotte: University of North Carolina Press.
- Yin, R., K. (2003b). Case study research: Designs and methods (3rded.). Thousand Oaks: SAGA.
- Yorgan, Y. (2006). Accessibility of high education for students with non-physical disability. A Report for the Education, Culture and Sport Committee, the Research and Information Center, Israeli Knesset.

Yuen, F., K., E. (ed.) (2003). International perspectives on disability services: The same but different. New York: Haworth social work practice press.

Zeff, R. (2007). Universal design across the curriculum. Retrieved March 24, 2015 from http://onlinelibrary.wiley.com/store/10.1002/he.244/asset/244_ftp.pdf?v=1&t=i7n9392r&s=d52c2e27e3158b53cc55bba0de2e3323d54e1a91

APPENDICES

Appendix A: Students' Questionnaire

The purpose of this questionnaire is to gather demographic information of students with disabilities enrolled in public universities in Kenya. Kindly fill in this questionnaire as honestly as possible. You are guaranteed that your responses will be treated in confidence and used only for the academic purpose, for the sake of improving policy and provisions for students with disabilities in Kenyan Public Universities.

A. Background Information:

University: _____ Campus: _____

School/Faculty/college: _____

Department: _____ Registration Number: _____

Age: _____ Year of study (e.g. 1st, 2nd, 3rd, 4th, 5th, 6th, 7th) _____

Degree course: _____ Subject combination (if applicable): _____

Gender Please Tick.

_____ Female _____ Male

B. University, Career and Future Plans

1. Please circle the number of years you have been enrolled in the university.

> 1 1 2 3 4 5 Other _____

2. How many units are you taking this semester? _____

3. How many university semester units have you completed? _____

4. What is your goal for attending this university? Please tick .

a) Bachelor's Degree b) Diploma c) Certificate d) Other

5. Do you currently receive financial aid? Please tick. a) Yes b) No

6. Please indicate your anticipated future plans after leaving university?

<u>C. Education</u>	<u>Work</u>	<u>Other</u>
<input type="checkbox"/> Other 2-year college	<input type="checkbox"/> Professionals	Please specify: _____
<input type="checkbox"/> Four year college	<input type="checkbox"/> Technical	_____
<input type="checkbox"/> Specialized training	<input type="checkbox"/> Clerical	_____
<input type="checkbox"/> Other _____	<input type="checkbox"/> Other _____	_____
<input type="checkbox"/> Don't know	<input type="checkbox"/> Don't know	

7. Did you drop out of school between nursery school and form four?

a) Yes b) No

8. Did you complete from high school? A) Yes b) No

9. Some students finish high school or complete the P1 College and wait awhile before starting university. Did you finish high school or P1 College and enroll in university within the same year? Please tick ()

Yes (e.g. graduated from high school in May and started university in August)

No (e.g. graduated from high school and waited six or more months before starting university)

10. Are you financially independent? Yes No

11. Do you receive education bursary? Yes No

12. Do you receive financial aid from the National Council for People with Disabilities?

a) Yes b) No

13. Has your financial aid from National Council for People with Disabilities ever been discontinued? Yes No

14. Do you receive financial aid from your university? Yes No

D. Employment

15. Do you currently have a job? Yes No

If yes, how many hours do you usually work per week when the university is in session? ____

16. What is your job title? _____

What are your duties? _____

18. Is your job considered full-time or part-time? Please tick. Full-time _____

Part-time _____

19. Is your salary below, at or above the minimum wage of KShs. 6,000.00 per month? Please tick.

a) Below b) At c) Above

20. What are your job benefits? Please tick () all that apply.

- | | | |
|-----------------------|---------------------|-----------------------|
| ____ None | ____ Promotion | ____ Sick leave |
| ____ Vacation | ____ Life insurance | ____ Dental insurance |
| ____ Health insurance | ____ Profit sharing | ____ Free meals |
| ____ Job training | ____ Other: _____ | |

E. Family Background

21. What is the highest level of education of your parents?

<u>Father</u>	<u>Level of education</u>	<u>Mother</u>
_____	Less than high school	_____
_____	Some college	_____
_____	University graduate	_____
_____	Post graduate degree	_____

22. With who do currently live?

Mother Father Step mother Step father
 Alone Spouse Friend/roommate
 Other _____

23. Do you live in a house, apartment or do you have some other living arrangement? Please circle.

(a) House (b) Apartment (c) Hostel Other _____

F Social Activity Information

24. Do you have a current driver's license? Yes No

25. How do you mostly travel around the community? Please circle one.

(a) Own car (b) Parent's car (c) Bike (d) Bus (e) Friends drive (f) Wheel chair

(g) "Tuk-tuk" (three-wheel motor bike) other _____

26. Think of your three best friends in high school and answer the following questions with them in mind. Write 0, 1, 2, or 3.

a) How many are currently in high school? _____ of three are in high school.

- b) How many dropped out of high school? _____ of three dropped out.
- C) How many graduated from high school? _____ of three graduated.
- d) How many attended university? _____ of three attended university.
- e) How many attended a vocational or technical institute? _____ of three attended Vocational/technical institute.

27. Besides classes, universities have a number of other activities. In what activities do you or did you regularly participate? Please tick all that apply.

- | | | |
|------------------------|-------------------------------|-------------------|
| _____None | _____Student congress | _____Drama |
| _____University sports | _____Intramural sports | _____Music |
| _____Dean’s list | _____Yearbook/newspaper | _____Vocational |
| _____Academic clubs | _____Exemplary students’ list | _____Others _____ |

28. Do you belong to any clubs or organizations that are separate from school? Yes No
 If yes, in which one are you the most active? _____

29. Think back over the past two weeks. What are some of the activities you did with your friends?

30. During the past two weeks, how many times did you attend or participate in each of the following? Please approximate and write a number in each space provided (0, 1, 2, 3...)

- | | |
|--------------------------------|-----------------------------------|
| ___Attend the movies | ___Attend a sporting event |
| ___Visit a museum | ___Visit a public library |
| ___Attend live theatre | ___Attend concerts |
| ___Attend religious activities | ___Eat at a restaurant/ take away |

___Extended travel out of town

___Other public function (specify)_____

Distance___ kilometers

G. Disability

31. Please mark () the verified disability/disabilities that apply to you.

___Visual impairment or blindness

___Intellectual disabilities

___Deafness/ hard of hearing

___Emotional/behavior disorders

___Orthopedic/mobility disabilities

___Head injuries

___Speech/language disorders

___Chronic illness

___Learning disabilities

___Other (specify)_____

32. Have you had a required unit(s) waived because of your disability? Yes No

If yes, which unit(s)? _____

33. Have you had a unit(s) substituted because of your disability? Yes No

If yes, which unit(s)? _____

34. Have you had a class assignment(s) waived because of your disability? Yes No

If yes, which assignment(s)? _____

35. Have you had a substitute class assignment(s) because of your disability? Yes No

If yes, which assignment(s)? _____

36. Please tick () each area of difficulty that you experience at the university.

- | | |
|---|--|
| <input type="checkbox"/> Concentration | <input type="checkbox"/> Reading |
| <input type="checkbox"/> Daydreaming | <input type="checkbox"/> Remembering |
| <input type="checkbox"/> Distraction | <input type="checkbox"/> Seeing things around the room |
| <input type="checkbox"/> Following direction | <input type="checkbox"/> Sitting still or in one place very long |
| <input type="checkbox"/> Getting along with others | <input type="checkbox"/> Speaking to a crowd |
| <input type="checkbox"/> Getting frustrated | <input type="checkbox"/> Speaking to a crowd |
| <input type="checkbox"/> Getting into or around the classroom | <input type="checkbox"/> Staying on track |
| <input type="checkbox"/> Hearing the teacher | <input type="checkbox"/> Study habits |
| <input type="checkbox"/> Letter/number reversals | <input type="checkbox"/> Talking with the teacher and others |
| <input type="checkbox"/> Mathematics | <input type="checkbox"/> Test anxiety |
| <input type="checkbox"/> Memory retrieval | <input type="checkbox"/> Vocabulary |
| <input type="checkbox"/> Paying attention | <input type="checkbox"/> Working independently |
| <input type="checkbox"/> Getting ideas across | <input type="checkbox"/> Writing mechanisms |
| <input type="checkbox"/> Getting used to changes in the classroom | <input type="checkbox"/> Other ___ |

37. Please write one accommodation (e.g. large print materials, brailled materials, sign language interpreter, note-taker, reader, enough space for wheelchair, lecture notes etc.) that you currently use in the classroom/academic setting.

Answer the questions on the following pages in terms of the accommodation you have written above)

Accommodations, Part One

Please circle your agreement with the following statements.

38. I received disability assessment before joining primary school. Yes No

39. I received disability assessment before joining university. Yes No

40. I am satisfied with the manner in which lecturers/professors/staff (e.g. registrar-academics, DVCs –Academics &Administration, Examinations Officer, Dean of students' affairs, Director- accommodation, Director of KUDSO, Administrator-KUDSO, students counselor e.t.c.) discuss my disability with me.

0	1	2	3	4	5
Not applicable	strongly disagree	disagree	undecided	agree	strongly agree

41. I am satisfied that my disability - related information is kept confidential.

0	1	2	3	4	5
Not applicable	strongly disagree	disagree	undecided	agree	strongly agree

42. I was satisfied with the process used in selecting an accommodation for me.

0	1	2	3	4	5
Not applicable	strongly disagree	disagree	undecided	agree	strongly agree

43. I am satisfied with the accommodation provided for me.

0	1	2	3	4	5
Not applicable	strongly disagree	disagree	undecided	agree	strongly agree

44. I am satisfied with the training I received on my accommodation (if applicable).

0	1	2	3	4	5
Not applicable	strongly disagree	disagree	undecided	agree	strongly agree

45. I am satisfied with the effectiveness of my accommodation.

0	1	2	3	4	5
---	---	---	---	---	---

Not applicable strongly disagree disagree undecided agree strongly agree

46. When choosing/selecting an accommodation, how important to you are the following factors? Please circle the degree of importance; 1 being unimportant and 5 being very important.

Factors	Unimportant			Very Important	
a) Amount of training required	1	2	3	4	5
b) Appropriateness for different tasks	1	2	3	4	5
c) Availability of accommodation	1	2	3	4	5
d) Cost of accommodation to the university	1	2	3	4	5
e) Ease of use	1	2	3	4	5
f) Effectiveness of accommodation	1	2	3	4	5
g) Increased independence	1	2	3	4	5
h) Currently or previously used by a student	1	2	3	4	5
i) Your own previous use of the accommodation	1	2	3	4	5
j) Social acceptance	1	2	3	4	5
k) Your disability	1	2	3	4	5
l) Use in various settings or portability	1	2	3	4	5

Accommodations, Part Two

47. What other accommodation(s) (other than the one previously mentioned) do you currently use or have you used in the past and are/were they effective for you? Please list the accommodation(s) and circle whether or not it was effective

	Accommodation	Effective for you?	
		yes	no
i.		yes	no
ii.		yes	no
iii.		yes	no
iv.		yes	no
v.		yes	no
vi.		yes	no

48. Please list 5 resources that would benefit you or other students with disabilities at the University _____

Thank you very much for your time

Appendix B: Faculty/Staff Questionnaire

The purpose of this questionnaire is to gather information about what university services are available for students with disabilities in Kenyan higher education institutions and how they are implemented. Kindly fill in this questionnaire as honestly as possible. You are guaranteed that your responses will be treated in confidence and used only for the academic purpose, for the sake of improving the accommodations for students with disabilities in Kenyan higher education institutions.

A. Background information

University: _____ Campus _____

School/Faculty/college: _____ Department _____

Gender: Please tick the one that that apply.

_____ Female _____ Male

B. Employment Information

What is the name of the university program/department with which you are associated?

1. What is your “job title” and what is the focus of your primary role at the university?

Job title: _____

Job Focus: _____

2. How many hours per week do you work in this capacity? _____ hours.

3. What is your highest educational degree? Please circle one.

(a) B.A (b) B.Sc. (c) MA. (d) M.Sc. (e) M.ED. (f) PhD (g) Other _____

B. Knowledge of Disabilities

1. Who are the students who are the most challenging to assist? What is needed to meet these challenges better? _____

2. We want to highlight your university's strengths and services for students with disabilities. Please describe what you believe are particularly strong features of the university (e.g. particular services, policies, facilities, equipment, accessibility, etc) worth replicating in other public universities.

3. Describe the most beneficial experiences you have had in learning how to understand and assist students with disabilities. _____

4. What are the greatest obstacles to helping students with disabilities at your university?

5. What are the most important products to develop in order to increase recruitment, retention, completion, and graduation or transfer of students with disabilities?

6. What do you believe are the most important features of any staff development program that might even reach those faculty and staff resistant to change?

7. What are the incentives for your university to recruit students with disabilities?

Thank you very much for your time.

Appendix C: Faculty/Staff Interview Schedule

University Demographics and Budget Information

University Name: _____ Campus _____

1. What are the percentage distributions for your university? Please approximate if necessary.

Students without disabilities: Male _____% Female _____%

Students with disabilities: Male _____ Female _____%

2. What percentage of support services costs are paid by the students of your program?
_____ %

3. Please indicate() the number of students registered for disability support services for which your program has provided an accommodation within the last year. Approximations are acceptable.

___ Visual Impairment or blindness

___ Intellectual disabilities

___ Deafness / hard of hearing

___ Emotional/behavioral disorders

___ Orthopedic/mobility disabilities

___ Head injuries

___ Speech/language disorders

___ Chronic illness

___ Learning disabilities

___ Other (please list) _____

4. What percentage of the university's budget goes to your support services program?
_____ %

5. For questions 1-5, on what year are the data based? Please circle.

(a) 2008

(b) 2009

(c) 2010

(d) 2011

(e) 2012

6. At your university, how do you assess the impact of your recruitment efforts? (Or in other words, if your university launched a new plan to recruit students, how would you know if it was successful)?

7. Retention of students is important to universities. What do you assess to know the benefits of your efforts to increase retention?

8. What do you count to know if more students are completing your university?

9. What do you measure to assess the transfer rate of your students to another college, university, or other postsecondary program?
-
-

Thank you for your time

Appendix D: Support Services Questionnaire

The purpose of this questionnaire is to gain specific information about what university services are available for students with disabilities and how they are implemented. Kindly fill in this questionnaire as honestly as possible. You are guaranteed that your responses will be treated in confidence and used only for the academic purpose, for the sake of improving the policies and provisions for students with disabilities in Kenyan higher education institutions.

I Background Information

University Name _____ Campus _____

Name of support services program: _____

Phone: _____ Fax _____

1. How does your institution define disability?

2. Does your institution's definition of disability include each of the following categories? Please put a tick () Yes or No

Disability category	Yes	No
Dyslexia		
Deafness		
Other Hearing Impairments		
Blindness		
Other Visual Impairments		
Mobility Impairment		
Psychological Difficulties		
Chronic Medical Conditions		
Multiple Disabilities		
Others		

3. What is the total number of Students with disabilities?

4. What proportion of the total student population is this?

5. Please indicate, in the table below how many enrolled students there were in each of the following categories in your institution and what percentage per category (in the academic year 2011/2012).

Disability category	Number enrolled	Percentage
Dyslexia		
Deafness		
Other hearing Impairments		
Blindness		
Other Visual impairments		
Mobility Impairment		
Psychological Difficulties		
Chronic Medical conditions		
Multiple Disabilities		
Others		
Total No of Students at your institution		

II Personnel

5. Please fill in the appropriate numbers of part time and full time staff and faculty specifically budgeted under your university's disability support services.

Table 2.: Disability Support Staff

Full Time		Part Time	
Lecturers		Lecturers	
Staff		Staff	

7. Please give examples of job titles of faculty who work with support services.

8. Please give examples of job titles of staff who work with support services.

III Current Policy and Provision for students with disabilities

9. Does your institution have a policy statement on disability?

Yes

No

10. It would help us with our research if you would send us copies of current policy statement on disability (if the statement is on the process of being revised we would like the existing one) and any other policy documents relevant to students with disabilities. These would be used in the strictest confidence.

Are copies of policy document enclosed? Yes No

IV Provisions for students with disabilities

The following questions in this section ask about current provision for students with disabilities in your institution. If you feel the answer to any question is contained in the policy documents that you are sending us, please simply refer us to the relevant document.

11. What procedures are currently in place for dealing with students with disabilities when they are applying to the institution?

12. How would you describe the current level of access for students with disabilities (wheelchair users, visually impaired e.t.c) to the following buildings where more than one building is involved? Please indicate the proportion that is currently accessible.

a) Teaching accommodations_____

b) Library_____

c) Toilets_____

d) Residences_____

e) Sport/leisure facilities_____

f) Refectory (Cafeteria/ dining halls/mess)_____

13. Please describe any staff development on disability that has taken place, mentioning which groups of staff have been involved.

14. Please describe any advice and support that is available for students with disabilities, mentioning which members of staff are responsible for providing this.

15. Please describe information that is provided for students with disabilities by your institution indicating where and when it is made available and what topics it covers.

16. Please describe any assistance offered by your institution to students with disabilities when they are seeking financial support.

V Future Changes to Provision for Students with Disabilities

17. Please describe any plans for future changes that will affect provision for students with disabilities.

VI Evaluating provision

18. Please describe any systems that are in place for evaluating what is currently provided by your institution for students with disabilities.

19. Are there other comments you would like to make on your institutions provisions for students with disabilities or on the project in general?

20. We are interested in courses/activities specifically designed for groups of persons with disabilities. Please mark the courses that you provide.

___ University orientation

___ Independent living/social skills training

___ Assistive computer technology

___ Self advocacy training

___ Study skills training

___ Job seeking skills training

___ Test taking strategies

___ Career planning

___Adapted sports/physical education

___Support groups

___Personal skills

___Others _____

21. Please mark any other of the following support services and accommodations that are available to meet the needs of students with disabilities.

Accommodations

- Alternative exam format
- KSL interpreters
- Braille services
- Electronic reading machines

- FM listening systems

- Magnifiers

- Note takers/scribes
- Provide texts/lectures on CDs
- Private work areas magnifiers
- Readers

- Course substitution

- Course waiver

Services

- Accessible transportation
- Campus orientation
- Community outreach
- Disability-specific - scholarships

- Extra-curricular campus activities

- Job placement

- LD diagnosis
- LD screening
- Part-time status
- Peer support/counseling

- Referral to local and national disability agencies

- Registration assistance

- Tuition waiver

- Specialized LD tutoring
- Transition services

Professional Development

- Disability factsheets
- Staff development
- Others _____

Equipment adaptation

- Closed circuit television system

- Specialized keyboards

- Computer text
- Learning centre lab
- TDD's
- Spell checkers

- Computer screen readers

- Voice input software

- Taped texts

- Tape recorders
- Talking calculators
- Tactile campus maps

22. Some students served in your program may not have English as their first language. Please list the 3 most frequent non-English languages and your percentage estimates (e.g. 15% Kenyan Sign Language).

English		
_____	_____	%
_____	_____	%
_____	_____	%
_____	_____	%
Other Languages		
_____	_____	%
Total		100%

23. Students' disabilities may influence their experiences in a number of university functions, activities, facilities, and services. As you examine the following list please identify any particular modifications that your office might make out of consideration for students with disabilities. Please feel free to attach pages of additional information if necessary.

VII Academic Activities

- a) Academic advising: _____
- b) Course assignments: _____
- c) Course instruction: _____
- d) Course testing: _____
- e) Degree requirements: _____
- f) Enrolment: _____
- g) Financial Aid: _____
- h) Graduation: _____
- i) Labs and field work experience: _____
- j) Orientation to the university: _____
- k) Placement testing: _____
- l) Recruitment: _____
- m) Registration: _____

n) Transfer and employment: _____

VIII Student Life Activities

a) Campus transportation: _____

b) Community access: _____

c) Housing: _____

d) Recreational activities: _____

e) Social opportunities: _____

IX Accommodation Procedures

1. How are students involved in selecting accommodations? _____

2. Time required for selecting _____

3. What are the basis for deciding accommodations or, in other words, given that several accommodations are available, what characteristics are used for deciding among the alternatives? _____

4. How are students trained in using the accommodations? _____

5. Time required for training: _____

6. How are the accommodations evaluated? _____

7. Time required for evaluating: _____

8. What are the 3 most frequently used resources by your program (off-campus or national)? (E.g. Kenya Constitution (2010), Persons with Disabilities Act (2003), National Special Needs Education Policy Framework (2009) etc. _____

9. Please list and explain any other important characteristics or services that benefit studen

10. ts with disabilities at your University.

Thank you very much for your time

Appendix E: Administrator Survey

The purpose of this interview schedule is to guide oral discussion in order to gather information about what university services are available and how they are implemented. Please respond to the questions as honestly as possible. You are guaranteed that your responses will be treated in confidence and used only for the academic purpose, for the sake of improving the policies and provisions for students with disabilities in Kenyan higher education institutions.

University: _____ Person _____
 School/Faculty/college: _____ Department _____
 Date: _____

Accessibility issues

1. Accessibility can be considered from many vantage points such as 1) physical, 2) informational, 3) policy, 4) procedures, and 5) attitudes. What's your sense about the campus faculty and staff attitudes regarding students with disabilities? _____

Staff development

2. What are the staff development opportunities for faculty in the areas associated with disability issues, accommodations for students, and disability student services? What would be the best methods for educating lecturers about disabilities and accommodations so they don't fall into a discrimination suit? _____

Priorities

3. What are the priority areas for work on the university's policies regarding disabilities? What are the priorities for improving procedures regarding students with disabilities? _____

Evaluation

4. How does the university evaluate the quality of the services and accessibility of the campus to students with disabilities? _____

Budget

5. Most budgets are pretty tight and yet we know that services for students with disabilities can often be expensive. How do you balance those needs with the university's needs? _____

Documents to review

6. What documents should we be sure to review to understand the university's policies and procedures regarding disability issues and services to students? Are copies of Kenya Constitution (2010); Persons with Disabilities Act; National Council for Persons with Disabilities Guidelines & Special Needs Education Policy Framework available?

Assess success of recruitment, retention and completion

6. At your university, how do you assess the impact of your recruitment efforts? (Or in other words, if your university launched a new plan to recruit students, how would you know if it was successful?)

8. Retention of students is important to universities. What do you assess to know the benefits of your efforts to increase retention?

9. What do you count to assess the degree completion rate at your university?

11. What do you measure to assess the transfer rate of your students to another college, university, or other postsecondary program?

Appendix F: Questionnaire for Institutional Administrators

This Questionnaire asks about the current policy and provision of learning supports and accommodations for students with disabilities at your institution with a particular interest in the management perspective on disability issues. The study will serve as a baseline for further actions to be taken in relation to accommodating students with disabilities in higher education effectively. All responses will be treated in confidence and used for research purposes only. No institution or individuals will be named in the final report without their prior consent. Please provide answers to each question as honestly as possible.

Policy and Provision for Students with Disabilities in Kenyan Public Universities

I Defining Disability

Disability category	Yes	No
Dyslexia		
Deafness		
Other hearing Impairments		
Blindness		
Other Visual impairments		
Mobility Impairment		
Psychological Difficulties		
Chronic Medical conditions		
Multiple Disabilities		
Others		

1. How does your institution define disability?

Does your institution’s definition of disability include each of the following categories? Please put a tick () Yes or No

2. Please indicate, in the table below how many enrolled students there were in each of the following categories in your institution (in the academic year 2011/2012).

IV Current Provision for Students with Disabilities

The following questions in this section ask about current provision for students with disabilities in your institution. If you feel the answer to any question is contained in the policy documents that you are sending us, please simply refer us to the relevant document.

7. What procedures are currently in place for dealing with students with disabilities when they are applying to the institution?

8. How would you describe the current level of access for students with disabilities (wheelchair users, visually impaired e.t.c) to the following buildings where more than one building is involved? Please indicate the proportion that is currently accessible.

a) Teaching accommodations

b)

Library

c)

Toilets

d)Residences

e) Sport/leisure facilities

f) Refectory (Cafeteria/ dining halls)

g) Please describe any staff development on disability that has taken place, mentioning which groups of staff have been involved.

h) Please describe any advice and support that is available for students with disabilities, mentioning which members of staff are responsible for providing this.

i) Please describe information that is provided for students with disabilities by your institution indicating where and when it is made available and what topics it covers.

j) Please describe any assistance offered by your institution to students with disabilities when they are seeking financial support.

V Future Changes to Provision for Students with Disabilities

K) Please describe any plans for future changes that will affect provision for students with disabilities.

VI. Evaluating provision

l) Please describe any systems that are in place for evaluating what is currently provided by your institution for students with disabilities.

m) Are there other comments you would like to make on your institutions provisions for students with disabilities or on the project in general?

Appendix G: Staff Interviews

University _____ School: _____

Department _____ Date _____

Remembering stories of when

We are interested in hearing about very specific, factual incidents, which have special significance to you. The general aim of hearing about your incidents is to help us improve the success of students with disabilities to attend public universities, complete their studies, and graduate or transfer.

Academic activities

Course testing

Recruitment

Course assignments

Registration

Degree requirements

Financial aid

Graduation

Academic advising

Transfer and employment

Enrollment

Student life activities

Orientation

Housing

Placement testing

Campus transportation

Course instruction

Recreational activities

Labs and field work experiences

Social opportunities

A. Looking for Examples of Strengths/Weakness/Priorities

1. Physical environment accessibility: Curb cuts, tactile maps, visual alarms, Braille signage
2. Information environment accessibility: Print materials, oral communications, information technologies
3. Programmatic/policy environment accessibility: academic load minimums, equal opportunity policies, designated staff accountable for disability related access.
4. Attitudinal environment accessibility: stereotypes, perceptions, and treatment

**B. How are students involved in setting the university's policies regarding disabilities?
What would you like to see?**

- C. How does the university evaluate the quality of the services and accessibility of the campus to students with disabilities? Have you been involved in any of these evaluations? What would you like to see?

Appendix H: Student Focus Group Discussions

University _____

Date _____

Introductions

Research description

Confidentiality of information

Use of videotape

Discussion Questions

1. How long have you been a student at this university?
2. What interested you in attending this university?
 - A. Remembering stories of when....

We are interested in hearing about very specific, factual incidents, which have special significance to you. The general aim of hearing about your incidents is to help us improve the success of students with disabilities to attend public universities, complete their studies, and graduate or transfer.

Academic activities

Recruitment

Financial aid

Enrollment

Placement testing

Labs and fieldwork experiences

Course assignments

Transfer and employment

Registration

Academic advising

Orientation

Course instruction

Course testing

Graduation

Student life activities

Housing

Recreational activities

Campus transportation

Social opportunities

Looking for Examples of Strengths/Weakness/Priorities

Accessibility in four environments

1. Physical environment: Curb cuts, tactile maps, visual alarms, Braille signage
2. Information environment: Print materials, oral communications, information technologies
3. Programmatic/policy environment: academic load minimums, equal opportunity policies, designated staff accountable for disability related access.

4. Attitudinal environment: stereotypes, perceptions, and treatment

B. Accommodation Procedures

1. How were you involved in selecting accommodations?
2. Time required for selecting
3. What was the basis for deciding accommodations?
4. How were you trained in using the accommodations?
5. Time required for training?
6. How were the accommodations evaluated?
7. Time spent in evaluation
8. How are students involved in setting the university's policies regarding disabilities?
What would you like to see?

Appendix I: eLearning Questionnaire for Faculty

University_____Campus _____

School/Faculty/college:_____

Department_____

Date_____

The purpose of this questionnaire is to gain specific information about the accessibility of e-learning and distance education to students with disabilities in Kenyan higher education institutions. Kindly fill in this questionnaire as honestly as possible. You are guaranteed that your responses will be treated in confidence and used only for academic purpose, for the sake of improving learning for students with disabilities in the Kenyan higher learning institutions.

1. For which disability or disabilities have you provided accommodation in your distance classes?

Disability type	Tick appropriately
Learning Disability	
Visual Impairment	
Hearing Impairment	
Mobility Impairment	
Other or Unknown	
Speech Impairment	
None	

2. Please identify the type of distance courses that you teach.

Disability type	Tick appropriately
Blackboard	
Audio Conference	
University Developed Course Management System	
Web- based with instructor designed Web Page	
Hybrid (face-to face and Distance Delivered)	
Compressed Video	
Moodle (Open Course Management System)	
Satellite Delivered	
Other (Please Specify)	

13. Which of the following tools do you use in your instruction?

Answer Options	Never	Some Times	Often	Always	Combined Some, Often, Always
Online Discussion					
PDF Documents					
Illuminate or Web Meet					
Online Tests					
CD/VCDs					
Instructor Designed Web Pages					

Real Time Chat					
Compressed Video					
Breeze Presentations					
Podcasts					
Weblog					

4. Have you received training or professional training on accommodating for disabilities in distance delivered courses?

Answer Options	Tick appropriately
No	
Not Sure	
It has been discussed in meetings or other training	
I've explored this on my own	
Yes I have received training	

Thank you for your time

Appendix J: Consent form



Department of Educational
Communication and Technology,
Kenyatta University

Consent Form

Title of Project: Policy and Provision of Learning Supports and Accommodations for Students with Disabilities in Kenyan Public Universities

Name of Researcher: Agnes Wanja Wanjau

1. I confirm that I have read and understood the Plain Language Statement for the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason and without any penalties whatsoever.
4. I agree / do not agree (delete as applicable) to take part in the above study.

Name of Participant

Date

Signature

Name of Person giving consent
(if different from participant, eg Head Teacher, Parent)

Date

Signature

Researcher

Date

Signature

Appendix K: Research Authorization

REPUBLIC OF KENYA



NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telephone: 254-020-2213471, 2241340, 254-020-2573550
 Mobile: 0711 780 787, 0735 404 295
 Fax: 254-020-2213215
 When replying please quote
 secretary@ncst.go.ke

P.O. Box 30623-00100
 NAIROBI KENYA
 Website: www.ncst.go.ke

Our Ref: **NCST/RCD/14/013/1169** Date: **1st July, 2013**

Agnes Wanja Wanjau
 Kenyatta University
 P.O. Box 43844-00100
 Nairobi.

RE: RESEARCH AUTHORIZATION

Following your application dated **26th June, 2013** for authority to carry out research on **"Policy and provision for students with disabilities in Kenyan Public Universities,"** I am pleased to inform you that you have been authorized to undertake research in **Selected Public Universities** for a period ending **30th June, 2015**.

You are advised to report to the **Vice Chancellors of the selected Public Universities** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.



DR. M. K. RUGUTT, PhD, HSC.
DEPUTY COUNCIL SECRETARY

Copy to:

The Vice Chancellors
 Selected Public Universities.

"The National Council for Science and Technology is Committed to the Promotion of Science and Technology for National Development"