INFLUENCE OF RESOURCES ON RETENTION OF PUPILS WITH DISABILITIES: A CASE OF MAINSTREAMED PRIMARY SCHOOLS IN BOMET COUNTY, KENYA

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A Thesis Submitted to the Institute of Postgraduate Studies in Partial Fulfilment of the Requirements for the Award of the Degree of Doctor of Philosophy in Educational Management and Leadership

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DECLARATION

This thesis is my original work. It has not been presented for award of a degree at Kabarak University or any other university within or without Kenya.

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RECOMMENDATION

To: The Institute of Postgraduate Studies of Kabarak University:

This thesis entitled **"Influence of Resources on Retention of Pupils with Disabilities: A Case of Mainstreamed Primary Schools in Bomet County, Kenya"** which was written by **Daniel Kipkirui Ngeno (GDE/0934/9/10),** was submitted for examination in the Institute of Postgraduate Studies of Kabarak University. As University supervisors, we reviewed and recommended the document for defence.

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ABSTRACT

Mainstreamed system of education is one of the most effective ways of creating an inclusive and human tolerant society. The government of Kenya has advanced in implementing the mainstreaming policy by ensuring that children with disabilities are enrolled in regular learning programs offered in mainstreamed schools. Research studies that have been conducted focused majorly on discrimination, stigmatisation, cultural beliefs and their effects and attitudes on persons with disabilities in societies. This research sought to determine the influence of resources on retention of pupils with disabilities in mainstreamed Primary Schools in Bomet County, Kenya. The objectives were to: determine physical resources, investigate instructional resources, determine the recreational resources and investigate adequate trained teachers on the retention of pupils with disabilities. Low retention of pupils with disabilities was the key problem addressed. This study was embedded on Systems Theory by Bertalanffy (1968). It adopted correlational research design. The target population was 840 teachers including Head teachers. Yamane table (1967) was used to get a sample size of 278 respondents. Multi-stage sampling procedure was applied. The data was collected, coded and analysed. The findings of the study revealed that physical and instructional resources significantly influence retention of pupils with disabilities (β=0.192 and β =0.421 respectively). Similarly, provision of adequate trained teachers and recreational resources were seen to influence significantly the retention of pupils with disabilities in mainstreamed Primary Schools (β =0.253 and β =0.250 respectively). The study concludes that supply of resources remain a major factor that promotes retention of pupils with disabilities. It was noted that absence of teaching and learning aids, poor accessibility to playgrounds, lack of talking braille labels, teachers' incompetence on the use of computers and assistive devices negatively influenced retention of pupils with disabilities. The study recommended that physical resources such as classrooms and toilets; instructional resources, for example, textbooks, supplementary curriculum support materials and in-service course for teachers promote retention of pupils with disabilities. Finally, recreational resources, in-door and out-door equipment, for instance, play kits, field markers and adequately trained teachers enhance retention of pupils with disabilities in mainstreamed primary schools.

Keywords: *Resources, Policy, Physical, Instructional, Recreational, Competence, Mainstreaming, Retention, Disabilities.*

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ABBREVIATIONS AND ACRONYMS

ADA	American Disabilities Act
ACRWC	Africa Charter on the Rights and Welfare of the Child
AED	Academy for Educational Development
AIM	Accessible Instructional Materials
APDK	Association for the Physically Disabled of Kenya
CDG	Centre for Devolved Governance
CIDP	County Integrated Development Plan
COMPAS	Community Based Monitoring and Programme Assessment System
CRC	Convention on the Rights of Children
DA	Disability Africa
DISE	District Information System for Education
EARC	Educational Assessment and Resource Centre
ECDE	Early Childhood Development Education
EFA	Exploratory Factor Analysis
EPSEN	Education for Persons with Special Educational Needs
FPA	Free Primary Education
FSEL	Federal Special Education Law
IDEA	Individuals with Disability Education Act
IE	Inclusive Education
IEP	Individualised Educational Programmes
ILFE	Inclusive Learning Friendly Environment
KICD	Kenya Institute of Curriculum Development
KISE	Kenya Institute of Special Education
KMO	Keiser-Meyer-Oklin
KNSPD	Kenya National Survey for People with Disabilities
KSPD	Kenya Society for People with Disability
MOE	Ministry of Education
OERC	Open Education Resource Centre
OFSTED	Office for Standards in Education, Children Services and Skills
GHS	General Household Survey
PPMCC	Pearson Product Moment Correlation Coefficient

PPND	Population Policy for National Development
PWDs	Pupils with Disabilities
SDGs	Sustainable Development Goals
SNE	Special Needs Education
SPSS	Statistical Package for Social Sciences
TIQUET	Total Integrated Quality Education and Training
UDL	Universal Design for Learning
UNCRC	United Nations Convention on the Rights of the Child
UNCRPD	United Nations Convention on the People with Disabilities
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations Children Education Fund
VIF	Variance Inflation Factors

OPERATIONAL DEFINITION OF KEY TERMS

Enrolment	Actual number of pupils with disabilities registered in mainstreamed primary schools in Bomet County, Kenya.
Competence	Refers to teachers' possession of capability and application of knowledge, skills and attitudes to perform work activities to the expected standards among learners with disabilities in mainstreamed schools.
Adequate Trained Teachers	Relevant mental and potentially skilled and capable human capital to handle pupils with disabilities in mainstreamed schools in Bomet County, Kenya.
Mainstreaming Policy	Refers to guidelines that mandate children with disabilities to learn together with non-disabled learners in regular schools in Kenya.
Pocket board	Refers to a white sheet of cloth containing improvised pockets where learners physically place cards containing written alphabetical letters, words or numbers on them related to any subject on session as guided by an instructor.
Pupils with Disabilities	Generally, refers to children with various impairments like hearing (requiring aiders and sign language interpreters), visual (fully blind and half blind and require tactile e.g. braille), physical (locomotive disorders), speech and many others. It means restriction of an ability to perform or execute an expected activity.
Retention	Refers to the actual number of pupils with disabilities who insist and persist to remain until they complete of their basic education despite challenges and short-comings in their learning environments.
Stakeholders	These are education providers like policy makers, quality assurance officers, managers, head teachers, teachers, parents/guardians and care-givers of PWDs in Bomet County, Kenya.

Physical Resources	These include classrooms, latrines, dining halls, dormitories, laboratories and libraries and play grounds.
Provision	This is to a managerial role where education managers and providers ensure that resources within and without the classrooms are availed for learners with disabilities in a mainstreamed school.
Instructional Resources	These are friendly teaching and learning materials or devices such as textbooks, supplementary support materials braille kits, printouts, pointers, embossers and many others designed for PWDs' use.
Recreational Resources	Encompass all the in-door and out-door equipment which are specifically designed, for instance, play kits, field markers and other pertinent tools used by PWDs in games and sports.
Mainstreamed Learning	This is an inclusive process of learning where pupils with disabilities attend and learn together with normal children in the same school and in the same classrooms.
Support devices	Equipment aimed at reducing effects of disability among learners with impairments, for example, tactile, embossers, braille machines, hearing aiders, white-cane, wheelchairs, tricycle, crutches, special shoes and many others.

CHAPTER ONE
INTRODUCTION

1.1. Introduction

The background of the study presents an overview of mainstreaming process, importance of resources and retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

1.2. Background of the Study

Disability is a worldwide challenge affecting many school going-age children from pursuing their studies. According to the World Health Organisation (2011) approximately one billion people in the world have one disability or the other, with at least 1 in every 10 being a child and 80% living in developing countries. Furthermore, Elzein (2013) reinforces the WHO's statistical information that 10% of any population in the world has disabilities and that children below 15 years in many countries have various types of disability and all require exposure to education. Inclusive education is about all people with disabilities being able to learn what they need and want throughout their lives, according to their potential in a regular learning centre. This is to let people with disabilities to learn to know, to do, to live together among other people and to be what they ought to be.

The universal right to education is firmly established in the international instruments that have global endorsement, for instance, Universal Declaration of Human Rights, Article 26, and the Convention on the Rights of the Child, Article 28 as reported by the Association for the Physically Disabled (2013). Mainstreamed learning is a new initiative that encompasses children with disabilities in a regular teaching and learning environments. Mainstreaming policy is concerned with overcoming barriers that hinder children from free participation in common learning activities (MacGuine & Molbjerg, 2011). All education providers need to be aware and be able to develop standards that cater for learners with disabilities. Bones and Lambe (2015) put an emphasis on this fact that education managers need to create conducive environments that allow learners with disabilities to participate in mainstreamed learning centers. The findings of this study continue to reiterate that there is need to register learners with disabilities and sustain them to learn in general learning institutions regardless of their differences to learn, to

play and to interact with others. Not only that but also for them to experience a sense of belonging and develop according to their potential despite their physical difficulties.

Teachers trained to support mainstreamed learning are a critical component in enhancing success of integrated program. In Australia, Walsh and Thomas (2015) report that there are no sufficient numbers of teachers who are available to meet the support needed for learners with disabilities. The few who are available have insufficient training capacity and they lack professional personnel who should be readily available to offer assistance to children with special needs. Many children with disabilities require personal care or medical interventions throughout the day. There are problems in determining who undertakes these procedures to unveil better solutions.

Friendly learning environments encourage children with disabilities to participate in education mainstreamed learning institutions. The report by Walsh and Thomas (2015) reiterate that when education managers fail to provide equipment needed, for example, hearing aide, vision aide, electronically adapted mobility devices among others, hamper retention of pupils with disabilities (PWDs). Lack of provision of resources may be due to inadequate financial resources to facilitate delivery of such resources and services which could enhance retention of learners with disabilities in public schools. Nevertheless, the report by Walsh and Thomas (2015) did not handle the provision of adequate trained teachers who are qualified for special needs education.

In addition to the statistical figures already stated concerning disability cases, a study conducted in England showed that one in five pupils within a population of 1.7 million school-going age children is identified as having special educational need. A study by Office for Standards in Education (OFSTED) dealing with children services and skills (2010) revealed that academic achievement for children with disabilities and those who have special educational needs was outstanding at 41% of the visited Provinces and 36% of the case studies. All the education providers who were visited were able to raise key factors to ensure good outcomes. Some of these factors were good teaching, good learning, close tracking, rigorous monitoring of progress, quick interventions put in place and a thorough evaluation of the impact of additional provisions. This led to a higher percentage of retention for PWDs in regular institutions. The findings by the Office for Standards in Education (2010) clearly indicate that when these matters concerning quality assurance for PWDs are emphasised, better statistical retention rate is realised.

Children with disabilities encounter challenges in their learning environments. According to Global Campaign for Education (2013), the current challenges faced by children with disabilities in realising their right to education remain profound. In most low and middle income countries, children with disabilities are more likely to drop out of school than any other cohort of children with normal physique. The same report further states that, children with disabilities have very low rates of initial enrolment and their rates of retention decline as term dates advance. This means that even if they attend school, children living with disabilities are often more likely to drop out before completing the intended programme. The report by Global Campaign for Education (2013) did not show reasons why children with disabilities are not retained in regular schools until the completion of their basic education. The report indicated that in some countries, children having variety of disabilities who are not attending school is twice the number of their non-disabled peers.

Adoption of mainstreamed learning has been an issue of concern for several years. Countries of the world still struggle to put across quality education for learners with disabilities. Studies conducted by Richardson (2013), indicate that Chinese Government regulations encouraged mainstreamed education for learners with disabilities but did not provide adequate pathways for achieving that aim for purposes of sustaining them in school. The findings of the same study further revealed that in many countries, children with disabilities make up a vast majority of those out of school. It is estimated that 85% of all children out-of-school have various disabilities.

Many learners with disabilities are admitted to schools and placed in general classrooms without adequate support. Teachers offer some assistance towards PWDs in order to allow them to participate meaningfully in the classroom and co-curricular activities. Schools failing to provide reasonable accommodation to children regardless of their disabilities are discriminatory. It is argued that children with higher disability risk are far more likely to be denied a chance to go to school. Evidence also suggests that school completion rates are lower amongst children with disabilities than other learners even when they are compared to other marginalised groups (UNESCO, 2010). This shows that there is a problem with retention of PWDs in mainstreamed primary schools.

Governments of the world have put in place policies that promote integrated learning in the classrooms. A report by Disability Africa (2017) reveals that the Governments are committed to full inclusion program for all disabled children in

mainstreamed education. The problem is that, at present, such policies basically amount to little more than unachievable and empty promises. Full inclusion of disabled children in mainstreamed education sounds good. This represents a revelation that the resources provided support the provision of an education system which affords every individual the most appropriate educational experience.

A fine-tuned education system fully equipped with resources tailored towards learners with disabilities promotes mainstreamed learning. An estimated half-a-million children with disabilities have been shut out of South Africa's education system (Human Rights Watch, 2015). This report states that South Africa has failed to guarantee the right to education for many of the country's children. This is due to widespread discrimination against children with disabilities in enrolment decisions and provision of suitable equipment. It was further noted by the Human Rights Watch (2015) in the findings of their research that five out of nine Provinces in South Africa showed that children with disabilities face discriminatory, physical and attitudinal barriers that frustrate them from enjoying learning in mainstreamed institutions. Despite this revelation, the concept of retention of PWDs and factors that hinder their education as far as required resources are concerned were not dealt with.

Kenya is not an exemption on issues pertaining to disability groups. Integrated programmes in mainstreamed schools are the way to go to accommodate learners with disabilities. The Kenya National Survey for Persons with Disabilities, (2014) indicates an estimated figure of 4.6% as a total population of people who experience one form of disability or the other. People with disabilities make up 10% of the total population of Kenya. This percentage gives an approximate figure of 3.5 million people (WHO, 2006). It is estimated that only one out of six impaired children is privileged to attend a regular public school. Those few who are able to attend school face the familiar problems of exclusion and stigmatisation (Global Campaign for Education, 2016).

However, the Constitution of Kenya (2010), article 53(b) guarantees the right to free and compulsory basic education for every child. Similarly, article 54 of the Constitution, particularly, targets persons with disabilities and provides that they have a right of access to educational institutions and facilities. They should be mainstreamed into learning areas which are compatible with their interests and needs (Government of Kenya, 2010).

The establishment of systems should accommodate all groups of persons. According to Kahongeh (2018), the education system in Kenya is still ill-equipped to support learners with disabilities and special needs as per a report consolidated by the Kenya Institute of Special Education (KISE) and the Ministry of Education. The National Survey on Children with Disabilities and Special Needs in Education conducted a fact finding mission in 2016 and 2017 and showed that 11 per cent of all learners in Kenya have one or another form of disability. It was censured that the most common disabilities among learners include visual impairment (3.1 per cent), physical disability (3 per cent), intellectual disability (2.5 per cent), hearing impairment (1.2 per cent), speech and language (0.9 per cent), deaf blind (0.2 per cent).

Kenya has taken a stride to inculcate inclusiveness in the learning centres. The National Special Needs Education Policy Framework (2009), states that the Government of Kenya emphasizes inclusive education through regular schools for learners with special needs. This is opposed to the practice of using special schools and special units as formerly emphasized by the Ministry of Education in Kenya. According to National Gender and Equality Commission (2016), the Kenya Government provides education for children with disabilities through mainstreamed units in primary schools. However, lack of a clear implementation framework of the Special Needs Education policy, inadequate funding and shortage of teachers with the right skills hamper access of children with disabilities to education and their retention.

It has been a general concern for many people that children with disabilities need attention in all areas of life. According to the Ministry of Education sessional paper No. 3 of 2014, Kenya committed herself to ensuring that the rights of persons with disabilities under the Persons with Disabilities Act, 2003 was adhered to. Kenya has ratified the UN Convention on the Rights of Persons with Disabilities. Article 25(1) of the Universal Declaration of Human Rights (1948), which specifically advocates for the socio-economic rights of people with disabilities. Equally, Basic Education Act 2013 has emphasised the provision of quality early childhood education, basic education and transition to secondary education for all learners.

Furthermore, Ministry of Education sessional paper No. 3 (2014) indicates that various barriers ranging from environmental, communication, social to economic prevent persons with disabilities from attaining an acceptable quality of life. Key challenges identified as facing PWDs include: the lack of adaptation of the educational system to

address their needs; inadequate provision of appropriate facilities; lack of access to buildings and other infrastructure constructed without sensitivity to the needs of the PWDs.

Similarly, new insights and initiatives enhance programmes that are geared towards inclusion. The National Education Sector Plan (2013-2018) is an all-inclusive sector-wide programme whose prime goal is: Quality Basic Education for Kenya's Sustainable Development Goals. The sector plan builds on the successes and challenges of the Kenya Education Sector Support Programme (KESSP) of 2005-2010. The focus on improvement of quality education specifically targets: improvement of schooling outcomes, impact of the sector investment and development of relevant skills, improved learning outcomes, improved efficiency and effectiveness in the use of available resources for pupils with disabilities.

According to Bomet County survey for persons with disabilities in 2014, a total of 7,856 persons have various disabilities in the following categories: visual, physical, hearing impairment, mental retardation, albinism, autism, epileptics and speech disorders among others. Survey research findings showed that physical disabilities affected more males (52.7%) than females (47.3%) while epileptic cases represent 6.1% and albinos were less than 1% (Bomet County Integrated Development Plan, 2018-2022). A research conducted by Kimeto (2010) indicated that performance of learners with visual impairment is still low in primary schools due to lack of resources. This could be attributed to many challenges faced in the learning environments. The Bomet County CIDP of 2018 to 2022 and Kimeto (2010) did not investigate the availability of appropriate resources that build on the low retention for pupils with disability in mainstreamed schools.

Retention of pupils with disabilities still remains a challenge as reported by the Bomet County Integrated Development Plan (2013). Research conducted by National Council for Population and Development (2017) in Bomet County focused on adequacy of learning facilities and other amenities. The research further found that out of every 10 pupils with disabilities admitted to an integrated school in any given year, only 3 were retained up to the completion level of primary education which necessitated this study. It is argued that pupils with disabilities experience significantly lower rates of primary school completion compared to their peers without disability (Filmer, 2008). This

suggests that when appropriate resources are not provided for pupils with disabilities, their retention rates may be negatively affected.

Bomet County has experienced an enormous challenge in sustaining pupils with disabilities who have enrolled in mainstreamed schools. According to the educational statistical evidence disclosed by the County Government of Bomet in the 2017, it was reported that in the years 2014 to 2017, only 1,962 (38%) of pupils with disabilities were retained in regular public primary schools out of a total number 5,121 (62%) who were vetted by the Educational Assessments and Resource Centre of the Department of Education in Bomet County and were placed in various institutions of learning. A total number of 3,159 pupils with various types of impairments left school due to unforeseen circumstances. Despite the struggle to have 1,962 pupils with disabilities retained, this number deteriorated further down as the years went by (County Government of Bomet, 2017). This study sought to explore reasons why these figures declined and caused havoc to retention of PWDs in mainstreamed schools in Bomet County, Kenya. An additional finding was revealed by the Department of Children and Social Services in Bomet County (2014) that children with severe cases of disability were assessed and placed in special units for special programmes.

Table 1 shows the total number of children with various disabilities who were admitted to mainstreamed schools and those who terminated their schooling in Bomet County within a period of four years (2014 to 2017).

Table 1: Total Numbers of Children with various Disabilities in Bomet County Mainstreamed Primary Schools between 2014 and 2017

S/No	Type of Disability	Retained	Not Retained	Total
1.	Hearing impaired	185	422	607
2.	Visually impaired	528	456	984
3.	Physically impaired	417	957	1374
4.	Mentally impaired	251	222	473
5.	Multi-Handicapped	14	228	242
6.	Speech/ Language disorders	-	96	96
7.	Autism	24	57	81
8.	Health Problems	493	277	770
9.	Epilepsy	50	99	149
10.	Behaviour and Emotional	-	49	49
11.	Others not classified	-	296	296
	Total	**1,962**	**3,159**	**5,121**

Source: (County Government of Bomet, 2017)

Learners with disabilities require an inclusive commitment and social concern on matters education for purposes of enhancing enrolment and retention in the learning centres. Bomet County Integrated Development Plan (CIDP) of 2017 states that there exists limited attention offered to children with disabilities who are learning together with non-disabled chidren in public community schools. Following this report, the researcher envisaged and hypothesised challenges that hampered pupils with disabilities (PWDs) from being retained in mainstreamed schools. This exposition necessitated a study to be carried out so as to seek solutions to the problem by proving whether the predicted variables, when not catered for, were true hinderances to retention of PWDs.

1.3 Statement of the Problem

The background of this study shows that there is a problem of low retention of pupils with disabilities in regular mainstreamed schools in Bomet County. This has caused an outcry among the citizenry of Bomet. According to Kahongeh (2018) the education system in Kenya is still ill-equipped to support learners with disabilities and special needs. In support of this observation, Kogei (2013) states that special needs education in Kenya is reported to suffer from inadequate supplies for PWDs to learn in regular

schools. Many children with disabilities do not attend school at all. A few who are enrolled in regular schools are far more likely to drop out than their non-disabled peers in the same grades as observed by the Kenya National Survey for People with Disabilities (2008).

The magnitude of the problem of this study is displayed in Table 1 where out of 5,121 children with different types of disabilities who were registered in various public schools, 3,159 were not retained between the year 2014 and 2017. The table shows that only 1,962 were retained within the period of 4 years. According to the County Government of Bomet (2017), children with disabilities were not fully retained in public primary schools. It was further observed by the National Council for Population and Development (2017) that out of every 10 pupils with disabilities enrolled in integrated schools in Bomet County, only 3 remained to the completion level of basic education. In addition, a report from the County government of Bomet reinforces this information by stating that only 38% of PWDs were retained in regular mainstreamed schools while 62% did not remain to pursue their studies.

When children with disabilities fail to acquire universal basic education to empower them socially as required by the sustainable Millennium Development Goals, their living conditions remain deplorable. Pupils with disabilities, who are not retained to further their studies, tend to display poor performance in all aspects related to life as observed by Baxter and Babbie (2013). This research study sought to find out the influence of resources on retention of pupils with disabilities.

1.4 Purpose of the Study

The purpose of this study was to determine the influence of resources on the retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

1.5 Objectives of the Study

The objectives of this research study were:

i. To determine the influence of physical resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.
ii. To investigate the influence of instructional resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.
iii. To determine the influence of recreational resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

iv. To establish the influence of adequate trained teachers on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

v. To determine the predictive capacity of each independent variable on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

1.6 Research Hypotheses

H_{01}: There is no statistically significant influence of appropriate physical resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

H_{02}: There is no statistically significant influence of instructional resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

H_{03}: There is no statistically significant influence of recreational resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

H_{04}: There is no statistically significant influence of adequate trained teachers on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

H_{05}: There is no statistically significant difference in predictive capacity of each independent variable on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

1.7 Significance of the Study

This study intended to determine the influence of resources on the retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya. The researcher noted that there was limited attention that has been accorded to children with disabilities who are learning among others in regular community schools as stated by Bomet County Integrated Development Plan (2013). Moreover, the report by County Government of Bomet (2017) specifies that only 38% of pupils with disabilities (PWDs) were retained in regular mainstreamed primary schools while 62% did not complete their basic education.

In reference to the reviewed literature and the findings of this research, education managers would enhance understanding on the need to provide of appropriate resources for PWDs promote retention of pupils with disabilities in public or regular primary

schools. In addition, the findings would be useful to academicians who intend to conduct research on matters disability. Furthermore, this research informs training institutions on the vitality for all teachers to be exposed to special needs education curriculum and training. It also provides insights to policy makers in formulating policies on mainstreamed learning that would enhance enrolment and retention of PWDs in mainstreamed schools. Some of these policies focus on the making of teaching-learning resources, teaching-learning devices/aiders, learning activities, making of daily routine or time-tables and continuous assessment as a fulfilment of Competency Based Curriculum. All children in an inclusive set up benefit as they learn to respect and value their abilities and potentialities.

Similarly, the findings of this study may provide useful information and solutions to challenges influencing the retention of pupils with disabilities in mainstreamed primary schools. The Kenya Institute of Curriculum Development (KICD) realises the urgency to inculcate materials that can promote learning for PWDs in mainstreamed schools. Moreover, the Kenya National Examinations Council is guided to develop rapid results initiative on assessing and evaluating learners with disabilities in mainstreamed schools. In any case, when the findings of this study are implemented in schools, it is possible that retention of learners with various disabilities is realised. This could help them to pursue their education up to the end of the intended level of education.

Teachers Service Commission would find the outcomes of this study to be useful especially when recruiting and providing for adequate trained teachers to guide, counsel and teach learners with disabilities in mainstreamed schools. The itinerary tutors who ascertain quality implementation of mainstreamed curriculum on matters disability get abreast with the information of the findings of this research. Finally, the implementation of the findings would agree with the principles laid down by Ludwig von Bertalanffy in 1968. They may also help to infill the gaps contained in the System by providing data on the nature of interactions that exist, formally or informally, among the principles of objects, attributes, internal relationships and environment. Regarding the educational management and leadership, the study findings may inform the in-charge on the importance of mainstreamed schools concerning the leadership roles of equipping, managing and maintaining the effective appropriate resources in mainstreamed schools. The schools' managers are empowered to focus on factors that promote retention of pupils with disabilities in mainstreamed primary schools in the Country.

1.8 Scope of the Study

This study focused on the influence of resources on retention of children with disabilities in mainstreamed primary schools in Bomet County, Kenya. This targeted every primary school that has enrolled children with various disabilities in all the 25 Wards of the five Sub-Counties in Bomet County, Kenya. The teachers participated as respondents because they are the key persons who handle and know their learners from the day of admission. The specific areas that the study focused on were physical resources, instructional resources, recreational resources and provision of adequate trained teachers. All these were classified as independent variables of the study while the dependent variable was retention of pupils with disabilities. In addition, the data collection was carried out in the months of July to September 2019. Furthermore, inclusive education was introduced in Kenya in the year 2010 (Special needs education framework, 2010).

1.9. Limitations of the Study

The study was limited to correlational research design. This is because the researcher sought to study the influence of independent variables on dependent variable. The study that was conducted in Bomet County could not be generalised to other areas.

1.10. Assumptions of the Study

i. During the process of the research study, the researcher assumed that the respondents would provide honest information as per the requirements of the research tools and completely free from any undue influence.

ii. It was also assumed that the school administrators and teachers would keep accurate records concerning the enrolment of pupils with disabilities and that they fully knew the status of each individual child.

iii. The researchers perceived that all head teachers were to cooperate and that those who were respondents would participate swiftly and return the instruments in good time for effective analysis.

iv. Finally, the study assumed that the respondents were aware and understood the problem which was being investigated. It was also assumed that every primary school visited had children with various disabilities so as to qualify for the study intentions and expectations.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter is made up of meaning and aim of mainstreaming process, mainstreaming policy, and role of education managers, physical resources, instructional resources, recreational resources, adequate trained teachers and retention of pupils with disabilities in regular mainstreamed primary schools. Theoretical and conceptual frameworks are also dealt with.

2.1.1. Meaning and Aim of Mainstreamed Process

Mainstreaming process in the institutions of learning is the way to go in the contemporary society because it brings learners together. According to Huang and Waxman (2016) mainstreaming of education refers to a program which encompasses children with disabilities together with all other normal children in the same classroom for regular learning. The mainstreaming initiative was expected to promote inclusiveness and accessibility of children with special needs to regular schools. Oliva (2016) reinforces on the findings of Huang and Waxman (2016) by reiterating that mainstreaming strategy intended to promote freedom of socialisation, self-esteem and provide equity and quality acquisition of knowledge among all learners. Retention of pupils with disabilities to learn in mainstreamed schools has remained a challenge in many societies. Khumalo and Hodgson (2015) aver that South African Department of Basic Education showed that up to 489,036 children with disabilities dropped out of school within a matter of four years. A General Household Survey (2013) indicates that 67% of children with disabilities did not attend school. Some of these children were reported to have severe disabilities and would, therefore, require placement in special schools rather public common schools due to unavailable conducive resources. The challenge was coupled up with stigmatisation resulting to low rates of accessibility to community integrated schools. Zimbabwe was seen to be exemplary in the education sector posing the highest literacy rates in Africa displaying a percentage of 90%. However, Khumalo and Hodgson (2015) added that in the same country, an estimated number of 600,000 school-going-age children with disabilities did not get any access to education.

The huge figure of unregistered children in regular schools has been blamed on lack of supply of appropriate equipment that make their learning environment conducive (Chakuchichi, 2013). Although studies have focused on discrimination, stigmatisation, beliefs and practices that affect education for learners with disabilities, provision of resources tailored towards pupils with disabilities has not been explored. In Uganda, a research by Ndyabawe (2016) shows that challenges hindering children with disabilities from accessing primary education include lack of teaching and learning materials. This suggests that lack of relevant resources may frustrate retention of children with disabilities in mainstreamed learning. This research investigated the influence of resources on retention of pupils with disabilities in mainstreamed Primary Schools in Bomet County, Kenya.

Policy provision is an anchor to enhancing the mainstreaming process in schools. Mainstreaming policy aims at benefiting exceptional children through improvements in their learning outputs, social skills, academic achievements and personal development (Topping and Maloney, 2015). All learning needs of children within a community inclusively promote the initiation of restructuring mainstreamed learning in schools. According to Elliot (2012), mainstreamed learning in regular schools is characterised by strong emphasis on quality teaching, instructional resources and administrative leadership. It also emphasises on the learners' acquisition of basic abilities for growth and development. A greater emphasis is laid on high levels of confidence on teachers' ability in dealing and supporting their learners' needs as expected by their pupils and guardians.

Curriculum offered in mainstreamed learning centres should accommodate all children irrespective of age and condition of disability. Attig and Hopkins (2014) argue that giving a balanced and broad coverage of appropriate curriculum experiences to all children in mainstreamed setup is a real milestone of concern and a true obligation for administrators and education managers. The promotion of a secure and orderly environment conducive for both teaching and monitoring of each pupil's learning progress is a key area of emphasis in any mainstreamed orientation.

Educating children with disabilities in integrated learning centres is a unique reality for change. According to Llyod (2014), the American society lives in a time of rapid technological advancement. This is shown especially in the areas of research and innovations in education. Upholding a great promise for improving teaching and

learning, particularly for learners with unique educational and physical needs, is a true reality for societal change. Therefore, when the education managers take the initiative to provide high quality digital educational materials, tools and resources to learners with disabilities, up-to-date innovative ways of acquiring knowledge and skills are achieved.

Modern technology is the way to go to stir up uniformity among learners. According to Lone (2016), technology-rich learning environments as supported by digital materials are appealing to today's learners and teachers who wish to use the transition to improve instruction. Digital learning materials such as lesson plans, lesson presentation, videos of instructional practice and formative assessments can improve the classroom experience for all learners. These can also uphold a particular promise for pupils with disabilities to enhance their level of academics. In other words, digital content can be designed, created and refined over time in a way that recognises and responds to the full spectrum of learner's differences. Lone (2016) did not address the influence of resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

Promoting equal educational participation for all learners, irrespective of neither their ability nor disability, is the trend of the contemporary society. World Health Organisation (2011) maintains that Australia, like most countries, views inclusion as a disability issue, with almost all regions maintaining some form of separate special education. Australia has joined other countries in a global effort to promote equal and active participation of all learners with disability. This is supported by ratification of the United Nations Convention on the Rights of People with Disabilities (UNCRPD) in 2008. The international evidence indicates that good practices in inclusive education involve consideration of a range of aspects. The key approaches adopted in Australia focus on whole school practice and in class support. In general, good practices include adjustments to cultures, policies, practices, development of support structures, regimes of funding support, provision of and access to equitable learning opportunities (Forlin, 2013).

The quest for access to education has been a legitimate priority for many African governments in post-colonial period. This has been as a result of economic development which appears to be on the lead (Nungu, 2010). The majority of the world's population of children with disabilities (approximately 150 million) live in developing countries in Africa, Middle East, Asia, Latin America and the Caribbean (World Bank, 2010).

In Kenya mainstreaming education gets shape from the Koech Education Commission report of 1999. The commission was expected to make recommendations on ways that could be used to provide quality education (Government of Kenya, 1999). Based on the collected views the commission evolved the concept of Totally Integrated Quality Education and Training (TIQUET) to reflect the vision of Kenya education. It was referred to as "total" because it was expected to be inclusive, accommodative and lifelong learning for all learners.

2.1.2. Mainstreaming Policy in Kenya

The government places emphasis on inclusive education in regular schools to allow children with special needs and disabilities to participate in the learning process as opposed to the practice of using special schools and special units. A study done by Wekesa, Bukhala and Nguka (2017), support this statement by commenting that learning in special schools and units are only but essential for learners with severe cases of disabilities. All other fair cases should be referred and registered in regular public schools. The mainstreaming policy in Kenya, for instance, the Special Needs Education Policy Framework (2010) supported by the Disability Act of 2003, go hand in hand with the disability concerns raised by Salamanca Statement and Framework for Action on Special Needs Education, the UN Convention on the Rights of the Child (UNCRC) and the Africa Charter on the Rights and Welfare of the Child (ACRWC). These international and national legal frameworks on disability mainstreaming reinforce the concept of allowing children with disabilities to jointly learn together with normal children in mainstreamed schools.

Some information contained in the UN Convention of the Rights of Children states that no person or learning institution should deny admission to any person or child with disability to enrol or take any course of study in any institution. No person should use any lame reason of severity of disability to block any PWD, if the child or person has the ability to acquire substantial learning in the desired public institution. This was in full agreement with the expectations and intentions of this study. The Persons with Disability Act (2013) stresses the fact that learning institutions shall take into account the special needs of persons with disabilities with respect to the entry requirements, pass marks, curriculum, examinations and continuous assessments. Not only that but also to consider the auxiliary services, use of school facilities, class schedules, physical education

requirements and other similar considerations. Inclusive education approach increases access to education for children with special needs.

The National Legal Framework on Disability of 2013 satisfactorily indicates that although all learners face challenges in general schools, it is even worse for learners with disabilities under the same circumstances. Special needs children still suffer stigmatisation and social discrimination as stated in the Sessional Paper No 3 of 2012 on Population Policy for National Development. The Kenya Government under the Free Primary Education (FPA) programme advocates for provision of additional capitation grants to facilitate implementation of inclusive education. The funds are provided to learners with special needs and disabilities enrolled in both special education institutions, units attached to regular schools and integrated programs (Ministry of Education, 2009).

Republic of Kenya (2012) in a Policy Framework for Education in Kenya maintains that the Government places emphasis on inclusive education. This policy framework states that regular mainstreamed schools that have accommodated learners with special needs and disabilities have no amenities that take care of such learners. In addition, the Government of Kenya has made efforts to promote education of children with disabilities through the managerial implementation of educational programmes which take into account the wide diversity of learners with special needs. Despite these efforts by the Government, physical, instructional, recreational resources and staffing of trained teachers on matters disability have not been fully catered for in mainstreamed schools which could for enhance retention of learners with disabilities. This summed up to the purpose of this study.

Furthermore, despite strides to accommodate inclusive schools with appropriate facilities, a study conducted by Kogei (2013) states that special needs education in Kenya is reported to suffer from inadequate resources relevant to PWDs to learn in their schools. However, Global Campaign for Education (2016) and Kogei (2013) did not specify the type of resources required for PWDs which is the main focus of this particular study. A study by Okongo, Ngao, Rop and Nyongesa (2015) affirm that there are inadequate teaching and learning resources at school levels in Nyamira North Sub-County. It was noted that if essential learning resources are adequate then higher percentage of PWDs would be retained in schools. Nevertheless, Okongo et al. (2015) did not explore the fitness of purpose of the availed teaching and learning resources.

2.2. Retention of Pupils with Disabilities in Mainstreamed Primary Schools

Retention of learners with disabilities in regular mainstreamed primary schools is still a challenge and requires atttention. Baxter and Babbie (2013) agree that retention of children with disabilities in learning institutions has not been fully attained in mainstreamed schools. Furthermore, according to the research findings of Baxter and Babbie (2013), there are nine influences that affect social integration of children with disabilities and greatly impact on their enrolment and retention in regular learning centres. These include commitment of the institution to learner's welfare, communal potential, institutional integrity, proactive social adjustment, psychological engagement, economic strength, institutional organisation, psychological approach and sociological adaptations.

There is a difference between retaining pupils with disabilities in public schools and retaining weak learners in their previous classes due to their academic performance. This study focused on retention of pupils with disabilities in mainstreamed schools. Idol (2015) indicates that neither grade retention nor social promotion is a practice for promoting learners with disabilities together with their same age-peers to the next level. This step easily affects disabled children and can easily be the cause of their drop out of school. This may be so even if they have not mastered current grade level content due to disability. According to Huang and Waxman (2016), the rate of attendance of children with disabilities to regular community schools in India is too low. It was further noted that there is a high rate of illiteracy among pupils with various forms of disability. This was demonstrated by research findings that recorded a percentage of 74 in urban areas and less than a third of this figure in rural areas.

Societies should be engaged to a change of attitude on matters disability among children. Thomas (2015) notes that illiteracy is high among all categories of disability in many African countries. Thomas added that exceptional children, as a matter of concern, is well explained in relations to curricular, teaching/learning materials and approaches for teaching. To promote mainstreamed classroom education for children with special needs requires optimistic change of attitude by families and communities. Idol (2015); Huang and Waxman (2016) and Thomas (2015) did not analyse the influence of resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet, Kenya which this research study pursued.

According to the observations of Miller (2013), India's approach is consistent with international estimates by recording that 33-40% of out-of-school children worldwide have disabilities. It is reported that majority of children with disabilities in Africa are deprived access to quality mainstreamed education. In South Africa, for example, a research conducted by Human Rights Watch (2015) evidenced that the government has not reached "universal" education because it has left over half a million children with disabilities out of school. Hundreds of thousands of children with disabilities, who are presently in school, lag behind due to inadequate facilities. This implies that the situation may not allow pupils with disabilities to remain and pursue their education until they complete their primary level. Despite all these findings, researchers did not look at the effect of resources on retention of pupils with disability in public basic schools.

South Africa was one of the first countries to ratify the United Nation Disability Rights Treaty in the year 2007 (Human Rights Watch, 2015). This treaty required that the Government promotes an inclusive education system. Such system was designed to ensure that all children learn together and acquire the same skills on an equal basis. Any barriers to learning were removed so that children with disabilities get adequate support that prevents them from falling behind. Additionally, Myers (2014) reports that in Burkina Faso, having disability increases the risk of children being out of school by two and a half times the normal children. Children with disabilities are less likely to start school and if they do, they are unlikely to transit to secondary school. Access to school by children with disabilities is often limited. Despite this reality, a study by Myers (2014) did not explore further on reasons why PWDS drop out of school or not fully retained which is the main purpose of this study.

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) of 2004 has supported this report by stating that illiteracy rates are very high among all Children with special needs. This brings home a clear fact that those children with disabilities choose whether to stay out of school or attend regular schools in their vicinities which automatically affects mainstreamed learning and retention in regular schools. According to Lone (2016), stumbling blocks, for instance, lack of clear system for admission, lack of parental interest and economic reasons frustrate the enrolment and retention of children with disabilities into regular schools. The latest report of 2017 from Kenya Society for People with Disabilities (KSPD) says that out of every 10 pupils with

disabilities who attend regular community schools only, 3 manage to remain to the end of a given education level (County Government of Bomet, 2017).

Special schools and institutions of training for PWDs, especially the deaf, the blind and the intellectually disabled, should be established to cater for formal education, skills development and self-reliance. The Kenya National Plan of Action for persons with disabilities (1999-2009); the Free Primary Education (FPE) introduced in 2003, the Disability Act, 2003, the Special Needs Education Policy Framework, 2010 and finally the Sessional Paper No. 1 of 2005 on a policy framework for Education, Training and Research, stated that special education was important for human capital development. It prepares those who are most likely to be dependents to become self-reliant, hence, strengthens the contemporary philosophy of inclusion.

There are issues which hinder learners with disabilities from pursuing their studies to the completion level of their school program. A study carried out by Njeru (2014) investigated the factors that influenced low enrolment and retention rates of girls with disabilities in integrated primary schools in Embu County. It revealed that even the few girls who enrolled in schools were in danger of not being retained than boys. The low enrolment and low rates of retention for girls were the reasons why there was need for the removal of obstacles that hampered girls' participation in education all over the world. The findings by Njeru (2014) did not show specifically the designed provisions that are appropriate for PWDs.

Hence, there is need to find out whether it was the same for the girl child with disability by looking into the factors that contribute to the low enrolment and retention rates and establish intervention measures to prevent it from re-occurrence. A study carried out by the Republic of Kenya (2012) revealed that participation of girls in primary education was very low. According to this study, among the learners entering standard one, only 80 percent of the girls reached standard four and 35 percent entered standard eight. Therefore, this study intensively investigated through factual finding to justify the influence of resources on retention of pupils with disabilities in Bomet County, Kenya.

In a research conducted by Taderera and Hall (2017), it was found that when a child is discovered to have a disability, majority of Kenya's citizenry hide them in their rooms or in-doors locked up to avoid people to come in conduct with them to avoid questions and suspicions. They face a lot of difficulties in associating with the rest of the

children due to stigma and feeling of shame. Whenever they attempt to join up with the rest of the children, they are either cursed away or the other children run away from them. The bitter part of it is that traditional beliefs cause the entire family to be rejected by the community. When disabled children are enrolled in schools, they are rejected hence not being retained in schools.

Similarly, time has come when societies should get rid of social beliefs and pracitces which are connected to disability for purposes of enrolment and retention of pupils with disabilities in mainstreamed schools. Bunning, Gona, Newton and Hartley (2017) found out that local beliefs attributed disability to human transgression of social conventions which invoked a curse and supernatural forces affecting the children. These studies show that discrimination and negative cultural beliefs and practices could influence enrolment and retention of PWDs in mainstreamed schools. However, these studies did not expound the fact that provided resources not designed for PWDs may affect retention. This motivated the researcher to conduct this study.

2.2.1 Role of Education Managers in Provision of Resources to PWDS

Children with disabilities face barriers to quality education in mainstreamed learning environment. Education managers are mandated to make provisions necessary for learners with disabilities (Republic of Kenya, Basic Education Act of 2017). Furthermore, the legal document states that it is the duty of the education managers to provide appropriate resources in the areas of their jurisdiction which benefit children with special needs. Whereas, Wanzare (2013) affirms that the role played by the head teachers as instructional leaders worldwide is critical due to their direct and indirect impact on learners with disabilities. Wanzare's recorded literature further commented that school head teachers and their leadership role is central to establishing, managing and maintaining resources in an effective mainstreamed school.

As instructional leaders, the head teachers are the pivotal point within the school who affects the quality of individual teacher's instructional strategies, the height of pupils' achievement, and the degree of efficiency in school functioning. Most Governments, globally, are committed to enhancing the rights to schooling for children with disabilities. The legal framework outlines the rights of children with disabilities to education and supports their education by providing necessary facilities (UNICEF, 2016).

No child should be left behind on matters education. Research scholars like Topping and Maloney (2015) and Richardson (2013) reiterate that investment in education is fundamental to improving a country's economic growth, reducing poverty and boosting a country's general welfare. It is the role of education providers and managers to ensure that appropriate resources are availed in mainstreamed schools, it is mandatory that no child should be excluded from schooling due to any form of disability or how severe the conditions are (Attig & Hopkins, 2014). In addition, Tomlinson (2012) agrees that mainstreamed schools increase opportunities for PWDs to learn, to mix up, to interact and grow among the non-disabled children. According to Mogute (2013) school heads are the custodians of their school learning facilities. It is the responsibility of the school heads to ensure that all components of the plant are in good working condition, well protected and used for the purposes they were intended for. The study further noted that the teachers are to assist the school head teachers in the maintenance of the school infrastructure and learning environment. Ahmad (2015) observes that learners with disabilities are found to be frequently trapped in a vicious cycle of exclusion from education, society and mainstream development programmes due to lack of necessary support and the means for equal participation.

Developing skills for learners with disabilities is an essential right. According to Muriuki (2015) the Kenya government recognises access to quality education and skills development as a fundamental right to all citizens including those with Special Needs. Several interventions have been put in place to cater for children who find it hard to reach school and particularly learners with special needs. As stipulated in article 24 of Millennium Development Goals, State parties recognise the right of persons with disabilities to quality education without discrimination, prejudice and on an equal basis with others. Furthermore, Muriuki (2015) poses that several global and national efforts have been pooled together through the Kenya Education Sector and Support Programme (KESSP) to enhance implementation and realisation of the rights of persons with disabilities to education. Curriculum materials have been adapted and adopted to meet the needs of learners with disabilities in mainstreamed primary schools.

Education managers and providers ought to show concern on the setbacks and mobility challenges of PWDs. This is in conjunction to their facilities, for instance, teaching spaces, assessment, evaluation tools, friendly school timetables, access to food, clean water for drinking and access to friendly latrines (Kimeto, 2010). The statement

further explains that the role of education providers in a model for mainstreaming disability that exists among learners in public schools is to be sure that barriers are deleted, for instance, reduce attitudinal barriers among learners and other stakeholders. They should ensure that formal and informal information systems and communications within the school, including entertainment, are accessible and should promote equal and active participation of learners with disabilities.

In reference to physical, social and motivational or attitudinal vulnerabilities and capacities, Kogei (2013) reiterates that close attention should be provided to learners with disabilities. The research findings further explored that accessibility to infrastructure in mainstreamed schools, for instance, to classrooms, offices, sanitation, dormitory and other facilities should enhance confidence and promote a sense of freedom among pupils with disabilities (PWDs). Kogei added that Vulnerability and Capacity Assessment Team (VCAT) should ensure that the strengths and capabilities of learners with disabilities are considered as it is said that disability is not inability. According to Navigate (2013) and Bhat and Bilal (2012), learners with special needs suffer from inadequate funding, lack of clear policy framework, low progress in assessment and placement, inadequate qualified teachers, lack of teaching and learning resources among others.

2.3 Physical Resources and Retention of Pupils with Disabilities

Common learning for all children in mainstreamed schools is turning to be a day to day practice in society. According to Stough (2013), Australian Government began to integrate learners with disabilities into mainstreamed classrooms in 1970s. This happened after almost a century when the Country was educating children with disabilities in segregated settings. This was in response to research findings about the affairs of PWDs and their related effectiveness on special education settings. Not only that but also a shift in attitudes in the Western world towards how people with disabilities should be educated. Stough adds that the policy of mainstreaming in Australia is to mainstream learners with disabilities in regular classrooms wherever possible. Some children required specialised adjustments, such as ramps, modified latrines, large print materials and Braille machines. The researcher also maintains that learners with similar disabilities were often transported to a school where such resources

could be centralised. This again could not allow learners with various difficulties to attend to their regular neighbourhood schools.

It has been realised that some mainstreamed schools deny admission to many children. In China, Richardson (2013) states that children and youth with disabilities are always confronted with discrimination in schools. At times, they ask them to leave especially when appropriate classroom accommodations are not provided to help them overcome barriers related to their disabilities. Learners in a mainstreamed school should be accorded relevant education and optimal opportunities for their individual enhancement in life. In Pakistan, retention rate of PWDs in regular schools is slowly increasing. Nevertheless, basic school infrastructure continues to remain poor. District Information System for Education data indicates that the proportion of schools with ramps increased significantly from 1.49% in 2004 to 55.09% in 2012 (Singal, 2016). Furthermore, the United Nation Children Education Fund (UNICEF, 2012) notes that despite well-articulated guidelines, the biggest challenge remains lack of toilets made to be friendly for children with disabilities and other facilities in most schools across the Country. The Pakistan Government urged the education providers and managers to put emphasis on provision of suitable equipment for students with any type of impairment.

Nevertheless, severe cases of disability may be treated differently but according to Tomlinson (2012), mainstreamed learning in schools seeks to completely remove the distinction between special and regular education. The intention was to provide an appropriate education for all learners in their local schools despite their level of disability. It involves a complete restructuring of the educational system so that all schools would have the responsibility of providing the facilities, resources, and appropriate curriculum for all learners irrespective of their disabilities**.** Odom and Brown (2012) support the view that public schools' physical facilities contribute, as much as possible, to making the learning environment be conducive for all groups of learners. The facilities required include the administrative offices, classrooms, libraries, dormitories, dining place and latrines. These study findings and knowledge contributions did not address the influence of resources and retention of pupils with disabilities (PWDs) in mainstreamed Primary schools. Not only that but also the study conducted by Odom and Brown (2012) did not investigate the influence of physical resources on retention of pupils with disabilities in mainstreamed primary schools which this research embarked on to determine solutions to this effect.

Friendly learning environments motivate joint learning among all children irrespective of disability. Pijl and Meijer (2016) assert that new buildings, for instance, classrooms with ramps for learners using wheelchairs and other tailored resources, help children with disabilities to move about, to read, to write and to hear the proceedings of lessons instruction. Well established learning environments provide push doors and bars to assist them in the bathrooms and handles to help them in the toilets/latrines. Doorsteps, dormitories and playgrounds should have ramps with recommended gradient where applicable. According to Ismail (2014) and Attig and Hopkins (2014), simple measures employed to promote change in schools attract learners with disabilities. Providing brightly painted rooms, clean floors, adequate ventilation, adequate lighting and assistive devices encourage learners' participation. These are aimed at ensuring that learners with disabilities are placed in conducive learning environments which are free from difficulties and complexities. The study by Pijl and Meijer (2016) did not examine the influence of appropriate physical resources on retention of pupils with disabilities in mainstreamed primary schools which the present study addressed. The focus of this research is based on the premise that if such facilities are provided, retention of learners with disabilities would be enhanced.

Learners with special needs in education require specialised educational resources at individual and school levels depending on the nature and extent of disability. The high cost of special equipment for learners with special needs remain a hindrance to the Governments' goals to provide education for all in line with the global goal of Universal Primary Education (Owuor, 2014). Ministry of Education of the Republic of Kenya (2013) recognises that over time there has been a major backlog of infrastructure provision. Shortage of permanent classrooms still feature as a problem particularly when viewed among poor communities. On the same note, existing infrastructure was generally in poor condition due to lack of investment capital, poor construction standards and inadequate maintenance. Progress in the provision of physical facilities has been realised of late due to support given buy the Constituency Development Fund. By and large, the highlighted resources were not specified to be appropriate for PWDs.

Karande (2014) who conducted a research to find out school based factors influencing the participation of physically challenged learners in public primary schools in Kiambu Municipality. The findings indicated that regular public primary schools have unfriendly learning environments which hinder movement and participation of the

physically challenged learners. This finding agrees with that of New Zealand Human Rights Commission (2010) who opines that despite the perception of 'education for all' and despite legislation and human rights conventions designed to protect the rights of children to access free education, this is not the reality for some children in New Zealand. Similarly, Kenny, McNeela, Shevlin and Daly (2000) maintain that barriers to education identified by students with disabilities included inaccessible transport, buildings and facilities within the school.

Nasiforo (2015) who asserts that learning resources which aid in the learning of pupils with visual impairment were not available and the learning resources available and examinations were not adapted by the teachers to suit the needs of learners with visual impairment. Mukhopadhyay (2009) carried out a study on practice of inclusive education in Botswana and noted that teachers who teach learners with disabilities in their classrooms emphasised the need to address the structural problems to facilitate implementation of inclusive education. These findings were corroborated by data from classrooms and school observations. The study established acute shortage of classrooms and necessary facilities to support inclusive education. The observation during fieldwork revealed that most primary schools in urban and semi- urban areas of the South Central region of Botswana did not have adequate classrooms to accommodate their relatively large number of students. In the said study, it was noted in one of the primary schools for learners with hearing impairment that learners were attending, the classes which were conducted under a tree. It was again noted that the classes were situated next to the school head teacher's office where there was a lot of movement and traffic noise (Mukhopadhyay, 2009). The information revealed in this previous study used observation and focused on classrooms only.

Donkervoort et al. (2007) explains that environmental adaptations of the classroom should be put in place in order to ensure teaching process of learners with physical disabilities is effective. By adapting and modifying the learning room design, is one of the key areas for these learners to ensure effective instructions. The rooms should have two doors, one in the front and one near the back. The doors should be wide enough to allow wheel chair bound learners' free movement within the learning environment. Chalk boards and easels should not be higher than 24 inches from the floor for a clear vision by the wheelchair users. The doors should have automatic door checks allowing the door to remain open for the wheel chair and crutch users. Doors should have long

grasping bars rather than door knobs. The toilet facilities should be near the learning environment and floor should be of nonskid type. This information is important in this study as it has indicated the various adaptations in the learning environment for learners with physical disabilities however the adaptations are not specific to learners with hearing impairment.

Limaye (2016) examined factors influencing the accessibility of education for children with disabilities in India. The study first established that schools are sometimes far from the home and there is a lack of transportation and lack of accessibility of travelling especially in slum areas in big cities, villages and remote areas. As such, there needed to be all options of education, such as, open schools, regular schools, special schools, non-formal and alternative education systems, available to all children with disabilities but unfortunately appropriate services are rare or unavailable. Children with disabilities face barriers if the school is not within their easy mobility and reach zones. Within school premises, children face many difficulties in accessing the washroom, libraries, classroom, and playground.

Although the attitudes toward inclusion of children with disabilities are gradually improving, there appears to be less movement with respect to general community attitudes with regard to building "Barrier Free Environments" in which people with disabilities can move about safely, independently and freely to use the facilities. School buildings in India are predominantly not accessible to people with disabilities; only 18% of SSA schools were "barrier free," and the numbers are even lower in some states, with 2% in Jammu and Kashmir, and 6% in Bihar and most of the school buildings are already built, and building modifications are expensive in a country that already has resource-starved programs (Kohama, 2012). However, all schools are not the same in terms of their physical infrastructure or in the quality of teaching. There are differences between rural and urban schools; public and private schools and even within public and private schools. Clearly, all children do not have the same learning opportunities.

Aamayreh (2011) sought to change the concept of school by transforming school from a building where knowledge and information is delivered to an interactive exciting stimulating teaching and learning centre. From this viewpoint, school is a place where the learner and the teacher produce relevant, realistic resources relevant to teaching, learning and the practice of the cultural and social activities within attractive welcoming

rooms designed to cater for the needs of gifted, less able, disenfranchised and disabled students.

Mahmoud and Abdul-Rashid (2009) argued that technology is very important in the educational process, enhancing students learning capabilities, logic and interest in learning. Moreover, another positive aspect of E-learning takes into account students' individual differences and needs, by providing diverse sources and assistance, thereby, helping students to learn at their own pace and according to their own abilities, personal traits and potential. This includes students experiencing learning difficulties, such as dyslexia, or physical disabilities: i.e. "technology plays a crucial role in all types of disabilities particularly in the education of students who suffer from writing difficulties. Therefore, there should be many ways in which technology can overcome these difficulties and improve the skills of students" [32]Similarly, Robert [55] claimed that the collaborative element of E-learning provides an effective learning environment as it provides opportunities for students to share learning experiences, whilst building knowledge through discussions and interacting with peers and teachers, together leading to an improvement in communication skills, along with the promotion of essential thinking skills.

According to Kartha (2011), learners with disabilities need adaptations and modifications on the curriculum. Learners with physical handicap need modifications on the academic curriculum which needs to consider mode of instruction, instructional resources and methodology. Kartha's view is supported by Policy on Special Needs Education (2009), a ministry of education policy which reported that curriculum materials for children with special needs of all categories are inadequate at all levels of education. The policy also noted that the curriculum lacks flexibility in terms of time, learning resources, methodology, modes of access, presentation and content. The literature outlines the nature of curriculum used and its inadequacies which would hinder inclusion.

The Kenyan curriculum is inappropriate as it has challeges of teaching resources, facilities, equipment and related services for learners with disabilities. In addition, Special Needs Education (SNE) teachers are also inadequate, at the same time they use rigid teaching approaches (Koech Report, 1999). Gurgiulo and Kilgo (2005) suggest augmentative communication technology for learners with hearing impairment. In a study done in Kenya by Makokha (2013), performance in Kiswahili was found to be

poor due to several reasons: non-inclusive teaching methods, non-conducive conditions at the school, and underutilisation of educational resources available at the school. The study investigated academic performance of learners with H.I. in Kiswahili, methods employed, conditions requisite for excellence and educational resources used in teaching and learning Kiswahili. It was carried out at the Mumias School for the Deaf in Kakamega County with a sample size of six teachers and thirty-two pupils. Behaviourist theory of language acquisition guided the study. K.C.P.E results between Kiswahili and other subjects in the school were compared. However, Makokha (2013) did not view these factors under the lenses of FPE.

Ngiria (2013) investigated factors affecting inclusion of learners with disabilities among urban refugees in public primary schools in Ruiru District, Kiambu County, Kenya that the schools in Ruiru District. The study found that the schools were not adequately equipped to cater for urban refugee learners with disabilities. This manifested itself in the finding that the schools did not have wheelchair ramps, horseshoe sitting arrangement, Braille, rail, special sanitary facilities for learners with disabilities and acoustic rooms. The schools also had toilets, but they were inadequate as per the standards specified by the Ministry of Education. Further, the study established that these toilets did not meet the standards required for the children with disabilities. The study therefore concludes that the school environmental barriers had a negative effect on the inclusion of urban refugee learners with disabilities.

Mutisya (2010) sought to establish factors influencing inclusion of learners with special needs in regular primary schools in Rachuonyo District, Kenya. The study established that appropriate resources and other teaching and learning materials were necessary for effective learning of children with disabilities (CWDs). Majority of the schools were not currently equipped with all the essential resources and teaching/learning materials. However, conducive and accessible environment enhances enrolment and retention of CWDs in these schools while of inaccessible environment could limit their enrolment. It was observable that those schools had adapted their environment to suit learners with special needs. However, more support was needed to maintain this state. All the schools offered some form of support services. It was evident that parents, community and other service providers played a role in offering support services. Parents and community involvement was essential factor in an inclusive setting. Parents played a major role in provision of essential services in their schools like

preparation of learning/teaching materials and other equipment. Continued financial support by the government and NGOs was necessary in an inclusive setting. It was observable that the schools had worked hard to provide essential resources and other materials however; it was clear that to enable smooth running and maintenance of all activities in an inclusive setting, it was essential to provide adequate funding in those schools.

Olaka (2016) also found that physical facilities influenced implementation of inclusive education for learners with physical impairments as majority of head teachers and teachers had said that physical facilities influenced implementation of inclusive education especially for learners with physical impairments. However, majority of schools lacked some of these facilities. Availability of physical facilities makes it effective for learners with physical impairments to learn like regular pupils. Majority of schools had no toilet seats, no walkways and no wheelchairs. This was in agreement with the discussions in the focus groups where pupils said that schools lacked necessary physical facilities for learners with physical impairments.

2.4. Instructional Resources and Retention of Pupils with Disabilities

Every child deserves to receive quality education. Education is a fundamental human right and a social good. According to Disability Africa report of 2017, overwhelming majority of children with disabilities in Africa are being deprived of access to quality education. Children with disabilities can be present in the classroom but still be bullied, be ignored and be excluded from learning. Furthermore, the Disability Africa report (2017), explains that whilst a certain amount of excellent inclusive education practice occurs, vast majority of children with disabilities who are lucky to attend school have miserable time. They are not accessing anything close to the best possible educational experience. According to Creemers (2013), some learners with disabilities have difficulty reading textbooks and other learning materials. A learner, for example, who is blind is not able to read a book. A learner who is physical challenged may not be able to hold a book. The same study further reported that to succeed in school, these learners need access to specialised learning instructional materials. This is fully documented in the Federal Special Education Law, the Individuals with Disabilities Education Act and Individualised Education Program in the United States of America. These legal

documents raised concern that the learners should be exposed to specialised assistive devices.

It is common in many learning centres that the materials that are available mainly are printed text books and printed curriculum supplementary support materials. According to Khan, Ahmad, Ali and Rehman (2011), many materials used by learners in the classrooms are large print-based books and hand-outs which learners with disabilities can use more easily. Some types of accessible instructional materials are braille, large print, audio and digital text. These are best for learners with disabilities who may understand information but cannot read. According to Odom and Brown (2012), the only difference between accessible instructional materials and alternative materials is the way the information is presented. Alternative materials contain content that addresses the same topic but is modified in some manner so that it can be understood by the learner. Studies by Creemers (2013); Khan, et al. (2011); Odom and Brown (2012), did not determine the influence of appropriate instructional resources on retention of pupils with disabilities in mainstreamed primary schools which this study embarked on.

Providing education for children with disabilities in mainstreamed education systems has not been easy in Sub Saharan Africa. Goel (2012) viewed the Africa Charter on the rights and welfare of children and critiqued that education systems in many poorest countries of the world are currently experiencing economic challenge which becomes a menace in financing mainstream education. The report further argues that the crisis can easily create a lost generation of children whose life chances will have been interrupted by failing to protect their right to education as deliberated in the goal of Education for All. Similarly, Goel (2012) did not examine the influence of instructional resources on retention of pupils with disabilities in mainstreamed primary schools which this study embarked on. The findings of this study on the influence of appropriate instructional resources on retention of PWDs in mainstreaming schools in Bomet County, Kenya concur with that of Ngeru (2015) who concluded that there was no significant difference in teachers' gender and their utilisation of instructional resources in teaching.

Instructional resources in the typical general education classrooms are limited in scope (Wong, 2012). The scholar went on to state that commonly found supplies such as textbooks may be supplemented with student workbooks and worksheets. Specific multimedia such as number-line sets for teaching mathematics, a globe for social studies,

videos, software, and internet resources are used to support learning in common centres for leaning. Walters (2014) and Sanders (2012) argue that digital content can be presented in different ways to meet the learning needs of each student. This content can include adding hyperlinks and glossaries. It might also include graphs, animation, and videos linked within the body of resources to aid understanding and expand content experience to demonstrate a concept. Kargın (2010) opines that instructional materials have positive impacts on student learning. If there are pupils with disabilities in a given classroom, therefore, instructional materials, for instance, appropriate teaching/learning tools such as textbooks, supplementary support equipment should be provided. Some of these goods are learning devices or aiders which include braille kits, braille printouts, hearing aids, pointers, embossers and many others. These equipment, in general, are very essential in terms of supporting and facilitating appropriate learning. Similarly, Avcioglu (2012) recommends that during education of a pupil with special needs, teachers should consider individual needs of pupils and provide acquisition of skills by experiencing real life situation.

Nevertheless, studies by Wong (2012); Walters (2014) and Sanders (2012) never examined the influence of appropriate instructional resources on retention of pupils with disabilities in mainstreamed primary schools which became the main focus of this study. According to Vlanchou (2013) and Theis (2014), implementing professional design and personalised programs for instructional resources in special needs education is core. Special education resources also offer success-oriented adaptations and cross-curricular activities to promote child-centred interactive programs. The use of instructional resources for special education to meet the requirements of mainstream education is a matter of urgency in mainstreamed schools.

Special education teaching resources consist of services and modifications within standards-based curriculum, supplementary aides and specialised resources to support learners' participation. The type of furniture in the classroom and children's seating positions and arrangement should depend upon their physical characteristics (Frederickson & Cline, 2012). Studies by Vlanchou (2013), Theis (2014) and Frederickson and Cline (2012) did not scrutinise the influence of appropriate instructional resources on retention of pupils with disabilities in mainstreamed primary schools which was the main focus of this study.

In Uganda, Ssenkaaba (2017) found that lack of essential scholastic materials, hearing aids, Charts, sign language manuals, inadequate curriculum and other support aids has af-fected the learning of Pupils with disabilities. This was also reported by the teachers of Special Needs Education in all the Schools the research was conducted. The teachers of Special needs in the Schools where the research was conducted said that the Curriculum for Special Needs Education does not help Children with learning disabilities. In the same context, Basome and Allida (2018) found that schools are faced with shortage of equipment due to irregular supply of equipment and lack of capacity of the special Needs Education teachers to operate the equipment which affects the quality of Special Needs Education provided. Teachers also noted that the training provided at the primary teachers' colleges does not furnish teachers with specialized skill to use the equipment. Lack of adequate infra-structure to cater for all children with Special Needs and there are also inadequate vocational materials and learning Aids to effectives help in teaching children with disabilities.

Inclusive education accommodates all children with or without disabilities. Kesson (2014) and Kailash and Bupinder (2014) emphasize that children with special needs should be received in a regular school and to be exposed to friendly facilities. Stainback and Stainback (2016) stressed that change in the learning areas and nature corners in the classrooms bring joy and makes children to be immersed in a highly participatory learning process. Studies by Kesson (2014), Kailash and Bupinder (2014) and Stainback and Stainback (2016) did not study the influence of appropriate instructional resources on retention of pupils with disabilities in mainstreamed primary schools which was the main focus of this study.

The movement to include learners with disabilities in general education schools and classrooms has gained support from educators, researchers and stakeholders. Lipsky and Gartner (2016) recommend that school managers should modify the physical and social environment so that they accommodate full diversity of learners with disabilities. Cooper and McEvoy (2015) and Mittler (2013), agree that in some countries like Namibia, learning equipment that support learners with disabilities are adaptive classroom seating, strollers, wheelchairs, standers, braille machines, tables, trays and therapeutic toys. Guralink, Connor, Hammond, Gottman and Kinnish (2013) also aver that every child regardless of birth, descent, sex, religion or social origin is entitled to a friendly learning environment equipped with suitable facilities.

A conducive learning environment is a haven for peace that addresses issues of physical, mental and emotional development in a holistic manner. To that extent, Gay (2012) observes that inclusive friendly schools are free from abuse, guarantee safety and respect diversity for girls and boys who have disabilities. Studies by Lipsky and Gartner; Cooper and McEvoy; Mittler (2013), Guralink, et al. (2013) and Gay (2012) never studied the influence of appropriate instructional resources on retention of pupils with disabilities in mainstreamed primary schools which was the main focus of the present study.

Despite the efforts put across, many countries of the world have engaged their financial resource to promote mainstreamed learning in their learning centres. According to Anderson, Ryan and Shapiro (2012) mainstream education has been catered for in the curricular of various countries in Africa. Challenges including curriculum content, aviation, driving lessons, overloaded content and time allocation may be inadequate and discouraging. They added that the level of special need or severity of disability determine how much the learner can achieve. According to Woolner, Hall, Higgins and McCaughey (2014) and Topping and Maloney (2015), facilities in a mainstreamed school should be designed to suit all learners including those with disabilities. However, studies by Anderson et al. (2012); Woolner et.al (2014) and Topping and Maloney (2015), never investigated the influence of instructional resources on retention of pupils with disabilities in mainstreamed primary schools which this study concentrated on.

Families where children with disabilities come from should improve their attitude towards them. Wheldall and Lam (2013) put across a research finding that the negative attitudes showed towards learners with disabilities are that families may be unwilling to spend resources on them. The works of Dierkx and Duru (2012) reinforce that lack of appropriate provisions in mainstreamed schools deny pupils with disabilities access to regular learning institutions. Communities with negative attitude towards children with disability may not make the necessary learning environment modifications that effectively promote learning.

Instructional resources are key to a sustainable learning for learners with special needs. Studies by Wheldall and Lam (2013) and Dierkx and Duru (2012) did not explore the influence of appropriate instructional resources on retention of pupils with disabilities in mainstreamed primary schools which the study aimed to unravel. Gullford and Upton (2014) and Frith (2011) concur that general schools should respond to diverse needs of

all children and accommodate their learning styles and that schooling is one experience that people worldwide embrace in common as a leading means by which societies prepare their young generations for a prosperous future. The report presented by Gullford (2014) and Frith (2011) did not focus on the influence of appropriate resources on retention of pupils with disabilities in mainstreamed primary schools which this study under took.

The statuses of persons with disabilities have accorded reasonable concern by various bodies in the world. According to National Council for Special Education (2013) and the Salamanca statement and Framework for Action showed that lack of health services provided amongst learners with disabilities hamper their participation in mainstreamed learning centers. Additionally, the United Nations Convention on the Rights of Children (2000) states that limited access to conducive educational facilities and psychological assessments by children with special educational needs is a challenge that hampers retention. This is so because they are unable to access professional education services. It is also a matter of concern that many assessments simply state a child's disability rather than informing and guiding a child's development during teaching and learning.

Learners with disabilities deserve a better attention so as to enhance their retention on education programs in their learning centers. According to Navigate (2013) and Bhat and Bilal (2012), learners with special needs still suffer from inadequate funding and lack of clear policy framework. Not only has that but also lowed progress in assessment, placement, inadequate qualified teachers, lack of teaching and learning resources among others. Studies by Navigate (2013) and Bhat (2012) did not scrutinise the influence of appropriate instructional resources on retention of pupils with disabilities in mainstreamed primary schools which this study intensively addressed.

The Government of Kenya has never been left behind on matters disability. A report of the Ministry of Education (2013) indicates that mainstreamed education was adopted and reinforced in order to enhance the inclusion initiative organised for children with disabilities. The objective of special need education is to assist children with disabilities to develop so that they can realise their full participation in social life and development. According to Ndumi (2011) provision of education to people with special needs or learning differences differs across countries. The ability of a pupil to access a particular resource depends on the availability of services, location, family choice, and

government policy. For example, in some poor countries, Kenya included, pupils with special needs simply cannot attend school. In other countries, educators are being challenged to modify teaching methods and environments so that the maximum number of pupils is served in typical educational environments. Nevertheless, researchers who are captured above to have conducted a study on instructional resources did not mention any fact on the influence of provision of appropriate resources on retention of PWDs in Bomet County. This study fully participated in attempting to raise guiding solutions to promoting retention of learners with disabilities in the regular community institutions. This finding concurs with that of Navigate (2013) and Bhat and Bilal (2012) who assert that learners with special needs suffer from lack of teaching and learning resources among others.

Khan, Ahmad, Ali and Rehman (2011) also assert that some types of accessible instructional materials are braille, large print, audio and digital text. These are best for learners with disabilities who may understand information but cannot read. These materials should be provided to PWDs in order to encourage meaningful learning which could improve on their retention rates in mainstreamed learning institutions.

According to Creemers (2013), some learners with disabilities have difficulty reading textbooks and other learning materials, for example, a learner who is blind may not be able to read a book. A learner who has a physical disability may not be able to hold a book. The same study further reported that to succeed in school, these learners need access to specialised learning instructional materials, for instance, braille with large prints, and many others. This finding agrees with the works of Dierkx and Duru (2012) who opine that lack of appropriate resources in mainstreamed schools deny pupils with disabilities access to regular learning institutions. This could also affect their retention for those enrolled in mainstreamed learning institutions.

Hayes (2014) sought to determine the level of experience obtained by classroom teachers located in Columbus, Ohio in the area of the educating children with hearing loss. Other areas of interest in the survey included the additional education regarding hearing loss in children and the willingness to make accommodations for children with hearing loss. A 35-question survey was sent to approximately 2,000 teachers in central Ohio. Questions in the survey focused on the teachers' experience with hearing loss, educating children with hearing loss and their willingness to work with students with hearing impairment. Subjects were contacted twice via electronic mail requesting their

voluntary and confidential participation. Results indicated that a significant minority of respondents reported having formal education about hearing loss. In contrast, many respondents reported they had classroom experience with teaching children with hearing loss. The majority of teachers responded that they would be willing to work with students with hearing loss and make accommodations for these students.

Omoniyi and Oluniyi (2012) investigated the impact of captioned video instruction on Nigerian hearing impaired pupils' performance in English language. The study adopted quasi-experimental pretest, post-test, control group design. The experimental group was exposed to captioned video instruction while the control group was taught using the conventional teaching method for the hearing impaired. Two hypotheses were raised and field validated Primary English Performance Test (PEPT) used as data collection instrument. The study concluded that both instructional strategies were effective in giving English language instruction to hearing impaired pupils, as performance of the two groups did not indicate any significant difference and gender did not influence their performance either. Yet it has not been established whether captioned video instruction is used in Kenya or not for delivering lessons to learners with HI.

Imbiti (2014) investigated strategies in terms of resources (material and human), teaching methods, teachers' use of KSL in handling lessons, teachers' preparedness and opinions towards the use of KSL in schools for learners with HI. The study employed a descriptive survey design which utilizes Questionnaires and observation schedules to collect data. Purposeful and proportionate random sampling were employed to get a study sample of 28 teachers and two principals from two schools for learners with HI in Western Province, Kenya. Study findings revealed that teachers preferred the use of discussion, demonstration, question and answer methods in teaching leaving out dramatization and field trips which were important in the learning process of learners with hearing impairments. Results of the study revealed that there were some strategies put in place to facilitate the progress of KSL such as the use of KSL dictionaries, charts, TVs, computers and resource rooms but they were inadequate. The KSL dictionaries and books were found to have some mistakes as far as KSL grammar is concerned and some pictures in the dictionaries were not clear. It was also found out that KSL was mainly used for clarification of concepts and not for instruction apart from during KSL subject. It was also found that human resources who included teachers with HI, Teachers trained in KSL and support staffs with HI were insufficient. The study further revealed that

teachers had positive opinion towards KSL use but they lacked knowledge and skills in it due to lack of training.

Mwiti and Mburugu (2014), on the other hand, investigated attitudes of public primary school teachers from central region of Kenya towards inclusion of children with hearing impairment. This study employed a descriptive survey research design, and multistage sampling method to select 400 public primary school teachers from four counties. A total of 400 schools were sampled for the study. Descriptive and inferential statistical tools were used to analyze the collected data. The results indicated that males and females differed significantly on their attitudes toward inclusion of learners among teachers in regular primary schools. The study concludes that despite teachers' positive attitude towards inclusion they are not ready to adopt this change without prior training on how to teach the hearing impaired. Male teachers were more positive to teaching learners with hearing impairment than their female counterparts.

Pakata (2015) sought to investigate factors influencing use of Sign Language in teaching and learning in public primary schools in Kiambu County, Kenya. The study was conducted using the descriptive survey design which describes respondents' characteristics such as opinions, attitudes, believes based on educational or social issues. The target population comprised 1 head teacher, 25 teachers and 265 learners. The researcher established that the teacher factor, the school environment, the curriculum, teaching / learning resources, influenced the use of Sign Language in teaching and learning in public primary schools.

Okutoyi, et al. (2013) sought to establish Support services and resources for inclusion of learners with HI in regular primary schools. The study adopted descriptive survey design. The population consisted of 121 learners with HI, 1584 hearing learners, 36 teachers and 18 head teachers. Simple random sampling was used to select 480 hearing learners while saturated sampling was used to select 109 learners with HI, 32 teachers and 16 head teachers. Findings indicated most teachers had undergone in-service teacher training in special needs education; hearing aids were mostly provided by parents; special education teachers; deaf role-models and support personnel were most used. Not available included: KSL interpreters, note-takers and teacher aides.

Amalemba (2013) investigated the challenges facing implementation of inclusive education in public primary schools in Matete District, Lugari Sub County; Kenya. The analysis of data was both qualitative and quantitative. Inadequate training, lack of

teaching materials, inappropriate curriculum to a large extent decelerated implementation of inclusive education. The results highlighted the existence of poor learning environment as well as low level of awareness on the contents of Special needs policy among teachers as a hindrance to inclusive education.

Okongo, Ngao, Rop and Nyongesa (2015) investigated the effect of availability of teaching and learning resources on the implementation of inclusive education in pre-school centers in Nyamira North Sub-County, Nyamira County. The study established that the centers face a lot of challenges when Acquiring Learning Resources for children with special needs. Most parents, head teachers and the pre-school teachers indicated that schools faced a lot of challenges when acquiring learning resources for the SNE pupils. This negatively affects implementation of inclusive education since implementation of inclusive education depends on availability of and learning resources. Availability of teaching and learning resources towards the implementation of inclusive education in pre-school Centres in Nyamira North Sub-county enhance curriculum delivery, meets the needs of learners with special needs and enhance pupils' enrolment and retention in pre-schools centres. The essential learning resources like Braille slates, large prints, audiotapes and loudspeakers, wheel chairs, crutches and sandpaper letters when made available lead to higher pupil enrolment and retention. The challenges to acquisition of teaching and learning resources due to lack of finance, ridged procurement procedures, unavailability of material and market logistics needs to be tackled by sound procurement policies. Lack of adequate teaching and learning resources affects the implementation of inclusive education in pre-school centers.

Olaka (2016) examined school factors influencing implementation of inclusive education in public primary schools in Homa Bay Town Sub County, Kenya. The study found that the implementation of inclusive education was influenced by the availability of instruction materials. However, such materials especially for learners with physical impairments are not enough or available in majority of schools even though the government provide for funds to purchase the materials. The funds are not enough because the instruction materials for learners with physical impairments are expensive. This implied that learners with physical impairment in these schools experience functional difficulties such as inability to write using a pen reduced writing speed, involuntary head movements which affect ability to read standard sized print, in ability to turn pages and to manipulate resources in their learning environment. The study shows

that majority of head teachers (64.2percent) have learners in their schools allocated books at a ratio of 4:1. This meant that 4 pupils share a copy of a text book and that learners with physical impairments in such classes have mobility difficulties and may find it frustrating to cope. However, majority of head teachers (85.7percent) said that their schools are well equipped with other instructional materials.

2.5. Recreational Resources and Retention of Pupils with Disabilities

All children desire and require good quality playtime in order to develop and stay healthy. Since 1990, the American with Disabilities Act (ADA) stated that mainstreamed spaces be accessible to people with special needs and disabilities. Playing grounds should meet ADA guidelines to ensure that all children of different abilities play equally in all the provided spaces. One of the biggest challenges is to consider the design for installing inclusive or adaptive playground equipment rather than having a separate section for special needs children. Inclusive playground equipment should be designed to allow able-bodied children with physical conditions and children with different developmental or sensory conditions to all play together on the same equipment. They can only use this equipment in different ways (Bros, 2016).

It is estimated that there are over 770,000 children with Special Educational Needs currently living in the United Kingdom and many do not have access to an outdoor space that is accessible and exciting and/or motivating. Creating play areas suitable for children and youth with Special Educational Needs is clearly something which schools need to focus on (MacAdam, 2013). Some children with Special Educational Needs find themselves feeling stressed and uncomfortable at school when this equipment are not friendly. Regular provided access to outdoor play helps children to expend their energy. Many other fun ways that teachers expose their learners with special needs lead to reduction of tension, anxiety and individual decisions to drop out of school. Confidence is a big issue for all children.

It is particularly important for pupils with Special Educational Needs to be able to play being on the same equipment as their friends can to boost their self-esteem and improve social interactions for many of these children (MacAdam, 2013). Educators and instructors who accommodate special needs children gain peace of mind in knowing that no child is left alone with a feeling of inadequacy. Inclusive play enables special needs children to build the necessary social skills to handle any circumstance. This increases

positive attitudes and interaction between all children regardless of abilities (Hart, 2017). Studies by MacAdam (2013) and Hart (2017) did not examine the influence of provision of appropriate recreational resources on retention of pupils with disabilities in mainstreamed primary schools which this study targeted to investigate.

Educational and recreational institutions as cited by Hart (2017) can make accommodations for special needs children without breaking the bank. The first step requires developing a plan of action, which may include evaluating, assessing, and changing routines and equipment to meet accessibility and inclusive standards. Recruiting staff that can interpret and use sign language is another important step. The arguments of Hart (2017) seem to agree with the findings of this study that when evaluating existing programs for accessibility and inclusive play, look over current employment policies and procedures of teachers to ensure that they do not discriminate against disabled children. Next, assessment of the physical accessibility of playground to ensure all equipment can be used by special needs children is an essential step.

Accessibility conversion may only require rearranging playground equipment, installing a ramp or handrail and adding braille labels to assist children with disabilities. Dierkx and Duru (2012) and Bernard (2014) state that a school that brings out the best in every learner is that school which harnesses diversity among learners for their individual and collective growth and development. Fraser (2013) and Gardner (2011) reiterate that to be able to retain learners in school, it is increasingly important to pay special attention to the learning areas especially recreational facilities. Kakui (2005) carried out a study on how teachers adapt to physical education and sport for reasons to enhance participation and enjoyment of learners with physical disabilities and chronic health impairments in inclusive primary schools in Kenya.

The study done by Kakui (2005) reveals those schools were committed to providing equipment for physical education and sport although they were not enough. Equipment for in-door games which are essential for learners with disabilities was lacking. Oliva (2016) emphasises that lack of accessibility-oriented curriculum adjustments leads to the exclusion of content to pupils with disabilities. Although the learners seem to socialise with others, their learning process is being partially neglected. The findings of this study have proved that these shortcomings affect the retention of pupils with disabilities (PWDs).

Confidence is a big issue for all children. It is particularly important for pupils with Special Educational Needs to be able to play being on the same equipment as their friends can to boost their self-esteem and improve social interactions for many of these children as stated earlier by MacAdam (2013). The findings of this study further corroborate with that of MacAdam (2013) who reported that there are over 770,000 children with Special Educational Needs currently living in the UK and many do not have access to an outdoor space that is accessible and exciting as earlier commented. Furthermore, the study findings of Hart (2017), as earlier stated, agree with the findings of this study by emphasising that inclusive play enables special needs children to build the necessary social skills to handle any circumstance. This increases positive retention, attitudes and interaction between all children regardless of abilities.

Equality should be promoted and attitudinal views should be positive. Musengi and Mudyahoto (2010) argue that some teachers have low expectations of pupils with disabilities as potentially competent athletes. In this light, pupils with more obvious disabilities were more likely to be denied access to sports. The teachers also have low expectations of Physical Education as a subject and have a laissez-faire approach to teaching it. Most of them do not know what to teach or how to teach it. They do not adapt equipment or rules to suit the therapeutic needs of pupils with disabilities.

A significant number of pupils with disabilities appear to have been caught up in the cycle of low expectations as they do not view sports as useful. They do not participate in Physical Education and sports in general because the provided equipment is not tailored to befit them. Studies by Musengi and Mudyahoto (2010) did not explore the influence of provision of recreational resources on retention of pupils with disabilities in mainstreamed primary schools which this study unravels. Assistive technology is one of the key elements for advancing inclusion of children with disabilities together with additional supports such as personal assistance, sign language interpreters and removal of barriers. Access to assistive technology for children with disabilities is critical for many to access and benefit from education (UNICEF, 2015).

Teachers assigned teaching roles in mainstreamed schools should be all-rounded in their nature of training. This statement brought about by Kimeto (2014) goes hand-in-hand with that of Kakui (2005) who carried out a study on how teachers adapt to physical education and sport for reasons to enhance participation and enjoyment of learners with physical disabilities and chronic health impairments in inclusive primary

schools in Kenya. The study reveals that, the school was committed in provision of equipment and facilities for physical education and sport although they were not enough. Equipment for indoor games which are essential for learners with severe disabilities was lacking. Teachers adapted equipment and facilities, curriculum, activities, teaching methods, content, and organisation as a whole by modification of some areas to the individual abilities of all the learners in the class.

The Kenya National Disability Authority report of 2014 explains that barriers that contribute to low levels of participation in physical activity and sport by people with disabilities in Ireland encompass many factors. Some of these factors are poor physical education provided in schools, negative school experiences, low expectations from teachers, families, peers and lack of knowledge of what is available. Furthermore, the report explains that other factors that affect freedom of play are lack of information and expertise, poor community facilities, lack of access to facilities and programmes and ad hoc structures. It was further learnt that factors like strategies, approaches, transport difficulties, lack of coverage of a wide range of sports in the media and lack of experience of the benefits of physical activity hamper success in recreational provisions.

It was further reported by the Kenya National Disability Authority (2014) that the factors enlisted to hamper participation of learners with disabilities in mainstreamed schools do still exist. Not only that but also lack of more factors like untrained staff, accessible facilities, companions to facilitate learners with disabilities to access facilities and programmes can cause havoc to participation of PWDs in common centres of learning. This Authority went on to explain that inadequate sponsorship and coaching, lack of a culture of general participation in physical exercise and sports have a lot negative influence in games and sporting. The report by National Disability Authority (2014) did not explore the influence of recreational resources on retention of pupils with disabilities in mainstreamed primary schools which the study unravelled.

Occasionally, assistive technology has been a missing link in the chain of prerequisites that enable children with disabilities to lead a life where they enjoy and exercise their rights rather than being deprived of them. While Governments have primary responsibility to ensure that persons with disabilities can access assistive products, international cooperation in the area of assistive technology can also be a critical catalyst (UNICEF, 2015).

Bros (2016) emphasises that rather than having a separate section for special needs children, inclusive playground equipment should be designed to allow able-bodied children with physical conditions and children with different developmental or sensory conditions to all play together using the same equipment, perhaps by using equipment in different ways. This could improve retention of pupils with various disabilities in mainstreamed primary schools.

The Kenya National Disability Authority (2014) who reported that barriers which contribute to low levels of participation in physical activity and sport by people with disabilities include lack of access to facilities and programmes, ad hoc structures and approaches as well as transport difficulties. This could be a reason for lack of retention of PWDs in the visited common mainstreamed schools.

The status and standing of sports policy in Kenya showed that very little relevant Mainstreamed Policy or legislation existed that governs and supports sports and development in the Country. It was just recently in 2013 that the Government of Kenya passed the Sports Act 2013 which prompts the development of sports from the grassroots of the County to National Government (Wekesa, Bukhala, & Nguka, 2017). However, the study by Wekesa, Bukhala and Nguka (2017) never critically study the influence of recreational resources on retention of pupils with disabilities in mainstreamed primary schools which was the main focus of the present study.

2.6. Adequate Trained Teachers and Retention of Pupils with Disabilities

Human capital investment in form of education is a major tool for sustainable development. A research done in United States of America by Knowles and Smith (2014) show that mainstreamed practices and activities have been carefully developed and implemented by trained teachers in the entire school system. They are fully provided with resources to support and maintain change. This ideal invalidates any argument that children with special needs are best served in specified special needs institutions. Collaboration and teamwork by special needs education teachers are essential aspects of mainstreamed practice especially during times of planning and reflecting. Nevertheless, the study expedited by Knowles and Smith failed to examine the positive influence of adequate trained teachers on retention of pupils with disabilities in mainstreamed primary schools which was one of the objectives carried out by the present study.

Planning for teaching sessions is an essential commodity in a learning environment especially that involves learners with disabilities. Ainscow (2013) posits that while teachers strive to plan and organise their teaching more carefully by adjusting lessons to befit learners with disabilities, some significant issues remain unsolved. These include widely varying attitudes of teachers, changing socio-economic situations, socio-political climate and emphasis on examinations. According to Booth, Farrell and Smith (2014) and Sheldon (2014) who cited the findings of a research that was conducted in Canada by Astrat (2013) reported that teachers' professionalism and subject knowledge are key factors to the improvement of learners with disabilities achievement and retention in regular schools.

Furthermore, the expertise of the teaching force in expending their potentiality among learners with disability is pertinent. According to Astrat (2013), it is stated that expert special educators have extensive knowledge of effective pedagogy in behaviour management. This is tailored to instruction skills geared to meet individual needs of learners with disabilities. Nevertheless, studies by Ainscow (2013) and Booth et al. (2014) failed to examine the influence of adequately trained teachers on retention of pupils with disabilities in mainstreamed primary schools which the present study aimed at conducting an intensive purposeful research.

Provision of adequate budgetary plans in the education sector is an essential commodity for implementing integrated learning in regular schools. In Britain, Mattingly and McInerney (2015) state that low school budgets resulting in lack of facilities, inaccessible school buildings, low pupil to teacher ratios, limited support for children with disabilities hinder them from enjoying mainstreamed learning in regular setups. In addition, the same study reports that teachers have inadequate training in inclusive methodologies and cannot deal with the range of children with disabilities. It is the mandate of the educational managers to ensure that every child receives quality education. Education is a fundamental human right and a social good. However, Mattingly and McInerney (2015) did not study the influence of adequately trained teachers on retention of pupis with disabilities in mainstramed primary schools in Bomet County, Kenya, a problem that this research study has satisfactorily pursued.

Implementation of curriculum is done by professionally trained personnel. Adegbesan (2014) cites a case study done by UNESCO (2009) which indicated that the Ministry of Education in Thailand has been focusing on development of teachers'

professional skills. This has been done to upgrade teachers' knowledge on how to handle learners with disabilities. All untrained teachers were given a slim chance in the service. All teacher trainees receive courses on the teaching of children with disabilities in teacher training institutions. A study conducted by Jha (2012) stated that completion rates at primary schools in Thailand which stood at 90 % in the year 2001 was attributed to teachers' competence in Special Education Needs (SNE) programmes. However, studies by Adegbesan (2014) and Jha (2012) did not examine the influence of provision of adequate trained teachers on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya which was the focal point of this study.

When the attitude of teachers towards learners with disability is positive, numbers of PWDs enrolled in class do not matter. This concept was objected by Lipsky and Gartner (2016) who reflected on a study that was done by Orodho (2012) and argued that teachers accept mainstream education only if learners are few in their classes. Stough (2013) and Abraham and Puri (2014) found out that 35 percent of special education trained teachers in England agree that an enrolment of less than 20 pupils is an ideal number. This is so if learners are included with differently abled children in a regular classroom. Teachers' experience and exposure to learners with special needs of varying severity was found to increase their capacity to handle inclusion.

Ajayi agrees with Tomlinson (2012) who depicts that experienced teachers are exposed to a variety of teaching strategies that suitably accommodate all learners in an inclusive classroom. This statement receive support by Ajayi, Haastrup and Arogundade (2015) who used the same research methodology to seek information concerning teachers' expertise reiterates that multi-level instruction is where teachers prepare one single lesson having variations that meet different learning styles and cater for all learners irrespective of their status. The use of cooperative instructional strategies actively engages all learners. Learner-centred teaching methods and development of appropriate teaching/learning materials enable of learners to attain potential in their academic achievements. Kottler and Carlson (2015) and Dickson, Moore and Bruyere (2012) who also used the same research methodology to collect data reinforce the fact that teachers' academic and professional qualifications are prerequisite to effective management of mainstreaming education which corroborate the fourth construct of this study which states the influence of adequately trained teachers and retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

Researchers have attempted to bring an understanding on what makes a teacher to be of high integrity and quality by investigating the relationship between teachers' characteristics and learners' achievement. Teacher characteristics like aptitude, course work taken and certification status positively influence learners' performance as stated by Lone, (2016). Uyini Alhassan and Abosi, 2014) aver that teachers have limited competence in adaptive to instruction and teaching which is strongly associated with teachers' competence in handling pupils with learning disabilities in a regular classroom. Apart from gender and class size, teachers' background variables such as school location and teaching experience differ significantly. The study has serious implications for Ghana's inclusive education policy and teaching practice. Studies conducted by Tomlinson (2012); Ajayi et al. (2015); Kottler (2015) and Dickson et al. (2012) did not investigate the influence of adequately trained teachers and retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya which this study investigated.

Well trained teachers have no problem handling learners with disabilities. Bones and Lambe (2015) and Ajayi et al. (2015) quote a study that was conducted in United States of America by Brownell and Pajars (2014) revealed that teachers with high academic scores possessed a mastery of the subject matter knowledge which made them serve learners with disabilities better. Another study conducted by Thomas (2015), argued that 30 hours extended for professional development of Early Childhood Development Education (ECDE) teachers yearly improved their learners' reading and writing outcomes as compared to a control group who did not receive training. Similarly, Westwood (2014) revealed that teachers who received training on inclusive education became experts on improvisation of teaching resources. They are accommodative to learners with special needs which lead to increased enrolment in mainstream institutions.

Limaye (2016) study in India also established that the teachers' training course for special school teachers failed to train teachers adequately to work in an integrated setting. Those with temporary jobs in a private school for disabled children, are trying to apply to other schools, and therefore not paying attention to teaching children with disabilities. The majority of school personnel in India are not trained to design and implement educational programmes for students with disabilities in regular schools (Mondal & Mete, 2015). Personnel in many regular schools have negative attitudes towards children with disabilities and some of them are not comfortable teaching such

children. Lack of sensitivity amongst the teachers itself acts as an impediment to the education of children with disabilities. One of the important reasons for considerably insensitive attitudes of teachers towards children with disabilities may be their total lack of training or exposure in the field.

The study further argued that the model being adopted by Sarva Shiksha Abhiyan (SSA) is further deskilling mainstream teachers by assuming that the educational needs of children with disabilities are not the primary concern of the general teacher, rather they need to be addressed by a resource teacher or indeed teachers in special schools. The Indian National Council of Educational Research and Training (NCERT) (2006) recommended that there is a need to, "gear all teacher education programmes (both pre-service and in-service) to developing the pedagogical skills required in inclusive classrooms". Implementation of an inclusive curriculum would require a number of changes in present day teaching practices, curriculum content, evaluation procedures and available resources at the school level. Adapted curricula and learning materials, for meeting the learning needs of children with disabilities both in content and format, are not readily available in most states. This applies both to adaptation of regular curricula and to differences in curriculum between special and regular schools.

National Gender and Equality Commission (2016) disclosed that head teachers did not have enough trained teachers while others had teachers trained in areas of disability not generally required in their schools. In regard to suitability of curriculum for children with disabilities, the schools reported that efforts have been made to adapt the regular curriculum. These findings concur with that of Mwangi (2013) who carried out a research on Special Needs Education (SNE) in mainstreamed primary schools. The findings of his study showed that many teachers lack a repertoire of teaching strategies for addressing barriers that frustrate learners with disabilities in mainstreamed classrooms. These findings concur with that of Lake (2016) who indicated that teachers use differentiated and learner-centred interactive teaching strategies in ensuring inclusion of diverse learners and accommodating for barriers to learning. Lack of time, heavy workload, large class sizes, disobedience and insufficient pre and in-service training were identified as factors which limit teachers' ability to use these methods in the inclusive classrooms.

Asenath (2015) conducted a research to identify the school based factors influencing performance of children with disabilities in public primary schools in

Kajiado County. It was established that teachers should accept the fact that their behaviour, character or personality can affect the education of their pupils.

Capacity building of human resource skills is an essential commodity for anyone who handles learners with disability. Brownell (2014) advanced a report that was done in America's Centre for Personnel Studies in special education which stated that teachers' experiences and exposure to special needs education have an effect on acceptance of inclusive education. The report further revealed that experienced teachers demonstrated more knowledge in decoding and predicting that learners with difficult circumstances are helped to overcome challenges. It is evident that studies by Bones (2015); Ajayi (2015); Thomas (2015); Westwood (2014) and Brownell (2014) did not explore the influence of provision of adequate trained teachers on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya which the present study focused on. Asenath (2015) conducted a research to identify the school based factors influencing performance of children with disabilities in public primary schools in Kajiado County. It was established that teachers should accept the fact that their behaviour can affect the education of their pupils.

Mastering the teaching approaches and strategies is a key component among the teaching staff. MacGuine and Molbjerg (2011), cited in Bones (2015) commented that teaching styles refer to the choice of teaching methods or the manner in which content is presented to the learners by the teachers. The choice of teaching style by the teacher needs to match learning styles of learners with special needs. Muhammad (2013) reported that teachers trained in special education were comfortable with inclusive teaching strategies such as peer teaching, cooperative learning and collaborative approach. Multi-level instructional method where teachers prepare single lessons with variations responsive to meet learners' diverse needs was seen to promote mainstreamed education.

This was supported by the findings of a research conducted by Booth (2014) on the teaching strategies used by teachers in mainstream schools which revealed that teachers do not keep records of pupils' weakness and strengths for the purposes of follow up instead a few teachers employ cooperative teaching approaches. It is apparent that studies by MacGuine and Molbjerg (2011), Bones (2015); Muhammad (2013) and Booth (2014) did not investigate the influence of adequately trained teachers on retention of

pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya which this study fully embarked on.

When personnel handling learners with disabilities are exposed to concrete training, then sustainability of PWDs in public mainstreamed centres of learning is promoted. Brownell (2014) argue that trained teachers on special needs education are enthusiastic and motivated to deal with learners with special needs. Reflecting further on Thomas (2015), there is an indication that capacity building or extension of professional development for teachers of early childhood care and development is mandatory to enhance the learners' reading and writing outcomes. A report picked from South Africa's system of education by Jessop (2014) states that teachers who received training on inclusive education became expert on improvisation of teaching resources. They are more accommodative to learners with special needs leading to increased enrolment in mainstream schools.

Despite resistance in some quarters of society among the the teachers, exposing teaching staff to intensive training is vital step. Avmaridis and Norwich (2015) reiterate that comparison of inclusion and segregation pose difficulties as all children attend mainstream schools. The researcher critiques the reviewed literature by focusing on the scope of teacher training on special needs education and their posting to regular primary schools that host children with disabilities. Wong (2012) proposed that teachers' resistance reflected a lack of confidence in their own instructional methodologies and the amount of support offered to them. Many teachers were generally trained in a period when mandatory special education units were not included in their pre-service training.

Many teachers display a negative approach to delivering services due to lack of training on matters special needs or disability. They normally do not expect to teach learners with disabilities due to lack of specialised skills. It is apparent therefore that a study by Avmaridis and Norwich (2015) did not investigate the influence of adequate trained teachers on retention of pupils with disabilities in mainstreamed primary schools which this study investigated.

Provision of post training to regular teachers who are already practicing the profession is necessary. Huang and Waxman (2016) add that policy changes have made the teachers to face learners with a wide range of disabilities, learning difficulties and all with extremely challenging behaviours. Those teachers who trained more recently are finding that pre-service courses were not enough to prepare them for the realities of

teaching students with a wide range of abilities and behaviours. It is clear, therefore, that studies by Wong (2012) and Huang and Waxman (2016) did not probe into the influence of adequate trained teachers on retention of pupils with disabilities in mainstreamed primary schools which the present study pursued. According to Gartner and Lipsky (2013), training can positively change the attitudes and competence of teachers who had received training in the area of interest had significantly more positive attitudes than did teachers who had received no training.

Training institutions ought to cater for an inclusive curriculum that make the trees to be all-rounded in the acquired knowledge. Duru (2013) further noted that training of teachers and support staff on how to handle exceptional learners has been found to increase both competence and positive attitudes towards mainstreaming initiative. Duru (2013) further asserted that teachers tend to seek advice most often from other teachers and perhaps surprisingly, from parents, particularly in relation to behaviour of learners with special needs. According to Idol (2015), teachers respond ineffectively to challenging behaviour, they may either cause the behaviour to escalate, or allow the behaviour to continue which results in continuing difficulties and eventually more severe consequences. According to Brownell (2014), successful mainstream education requires that every teacher has the expertise to meet the educational needs of every learner. Teachers not trained for and those trained for special education should be given the opportunity to collaborate and develop new skills to enhance success.

In Kenya, school-based courses have been found to be more useful in developing skills and increasing confidence. Karande (2014) observed that the university short term courses may develop generic skills that encourage teachers to continue with those instructional practices. According to Duru (2013), appropriate training and professional development hold a significant key to the success of mainstreaming programmes in regular schools. Furthermore, National Gender and Equality Commission (2016) disclosed that head teachers did not have adequately trained teachers while others had teachers trained in areas of disability not required in their schools. In regard to suitability of curriculum for children with disabilities, the schools reported that efforts have been made to adapt the regular curriculum. Nevertheless, there were challenges in regard to availability of appropriate teaching-learning resources in mainstreamed schools to help the on-going learners to be retained. These challenges also hamper the enhancement of peer to peer sharing and learning.

A research that was conducted by Mwangi (2013) on Special Needs Education (SNE) showed that many teachers lack a repertoire of teaching strategies for addressing barriers that frustrate learners with disabilities in mainstreamed classrooms. This study did not look at how distribution of adequate trained teachers as a resource affects retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

A study conducted by Ogero (2015) recommended that mainstreamed primary schools should be equipped with adequate resources and facilities for children with disabilities to fill several gaps that still exist. Besides, teachers need to be trained again through in-service courses to be empowered with Special Needs Education skills to enable them perform well. These in-service courses can also make them recognise their capacity and power to make key decisions which affect pupils´ performance. This implies that lack of appropriate utilities affect retention of pupils with disabilities in mainstreamed primary schools. This is what the researcher would like to ascertain. Despite the fact that Ogero (2015) supports the fact that placement of adequate resources to PWDs promotes retention but did not specify the nature and type of appropriate resources required.

Asenath (2015), conducted a research to identify the school based factors influencing performance of children with disabilities in public primary schools in Kajiado County. It was established that teachers should accept the fact that their behaviour can affect the education of their pupils. They must recognise that they have the capacity and power to make key decisions which affect their role and pupils´ performance. The findings also established that there is need for both the classroom teachers and the subject teachers to get trained in Special Needs Education to provide successful inclusive education.

However, many scholars have attempted to advance information concerning pupils with disabilities in various ways but none of them has ever proceeded to propagate any knowledge on the appropriate resources that can assist the learners with disabilities to be sustained or be retained in mainstreamed public or common community schools. Studies generated by Asenath (2015) did not investigate the influence of adequate trained teachers on retention of pupils with disabilities which this present study sought to unravel. Schools with more teachers trained in special needs retained more learners with disabilities compared to those with few professionally trained teachers as stated by Ajayi,

et al. (2015). Thomas (2015) and Navigate (2013) reinforced the idea that teachers should be conversant with special teaching techniques like peer tutoring, task analysis, psychotherapeutic methods, clinical methods and cognitive methods so as to bring down the numbers of learners with different abilities from dropping out of school.

The researcher gathered information from studies undertaken in Kenya by Mwaimba (2014) reveals that teachers with high academic scores possessed mastery of subject matter and knowledge which make them serve learners with disabilities better. Special Education teachers with good mathematical scores provided better attention in algebra than those without such competences. Educational Assessment Resource Centre (EARC) of 2013 reports that with no assessment at enrolment stage, or any other stage, the teacher is left not sure on how to teach the child and what to expect.

Furthermore, a research that was done in the District of Nyando by Owuor in 2014, for instance, displayed the fact that the dropout rate amongst those disabled children who attend school was estimated at 75%, compared to 40% amongst their nondisabled peers. Insufficient number of trained teachers has an effect on teacher-learner ratio in learning institutions. It is also evident that the success of inclusion depends on provision of specialised human and institutional capacity. Special needs education teachers in the Republic of Kenya are trained at Kenya Institute of Special Education (KISE), Kenyatta and Maseno universities among others. The research indicates that the on-going teacher training or professional capacity development is a vital component for successful inclusive education (Owuor, 2014).

Musengi and Chireshe (2012) sought to find out the challenges and opportunities of including deaf students in secular and missionary mainstream primary schools in a rural area in Zimbabwe. Twenty- seven participants (2 school heads, 2 specialist teachers, 8 mainstream teachers and 15 deaf students) were purposively selected. All participants were interviewed individually and lesson observations were carried out by one of the researchers. Theme identification methods were used to analyse data and it was found that there were more similarities than differences in the way secular and missionary mainstream schools tried to include the deaf students. All the deaf students had hearing aids and were mostly taught by regular class teachers in the mainstream but with constant withdrawal to the resource rooms for specialised services such as auditory training. Despite wearing hearing aids most deaf students could not hear the spoken languages used by teachers. All mainstream teachers were not conversant with Sign

Language. There was occasional Sign Language 'interpretation' in the mainstream classes whenever the specialist teachers were available. Sign Language interpreters were unable to sign many abstract concepts and used spoken language grammar in the 'interpretations'. Deaf students participated in most out-of-class activities with hearing peers.

Ayiela (2012) sought to establish factors affecting KCPE performance of learners with hearing impairments in Western Kenya. The study employed ex-post facto research design and focused on special school teachers, headmaster and classes 7-8 pupils. Purposive sampling was used to select four special schools, teachers' and pupils. Data was collected using three main instruments: head teachers' questionnaires, teachers' interviews and questionnaires, and interview for class seven-eight pupils. One way Analysis of Variance (ANOVA) was used to determine significant factor affecting KCPE performance of learners with hearing impairments. The study revealed that some teachers did not have knowledge and skill of the fundamental communication approaches, thus it affected their teaching. It was reported in all the four schools that the teachers did not cover the curriculum content before the learners sat for KCPE. A few teachers used appropriate format of teaching and instructional materials. This contributed to lack of learner's participation in teaching and learning process that could affect their KCPE performance.

Similarly, Muiti (2010) aimed at investigating factors hindering effective learning of children who are hearing impaired in one special primary school and units in Meru North District in Eastern Province of Kenya. It used a descriptive survey design. One special primary school and 22 units were sampled for the study, which presents 30% of the total population. Purposive and stratified random samplings were used for the particular special primary school and units. Questionnaires, interviews and observation schedules formed the basic research instruments. The results show that parents preferred their children to be enrolled in residential special schools; lack of many trained teachers in Special Needs Education affect learning of pupils with hearing impairment in special schools and units, inadequate teaching and learning resources impede learning of pupils with hearing impairment and lack of inspection of special schools and units by the Ministry of Education officers will affect effectiveness.

Further, the study by Ngiria (2013) established that the teachers in Ruiru District had positive attitudes towards the urban refugees. This came out in the way they treated

the children with love, friendliness and offering them assistance where necessary. However, the study established that not all the teachers had positive attitudes towards the inclusion of urban refugee learners with disabilities. This was because they did not have the necessary skills to accommodate the children in their classes. It can therefore be concluded that teachers‟ attitudes in Ruiru District affect the inclusion of urban refugee learners with disabilities negatively. The study established that teachers in Ruiru District were not trained to handle urban refugee learners with disabilities save for a very small percentage of them. The study findings revealed that the teachers in Ruiru District would not readily embrace inclusive education because they did not have the necessary competencies to enable them to teach children with disabilities, more so urban refugees. It can therefore be concluded that teacher competencies affect the inclusion of urban refugee learners with disabilities negatively.

Mutisya's (2010) study in Rachuonyo District also found that availability of trained teachers in special needs education (SNE) is essential factor in inclusion. Training of teachers in SNE enabled them to acquire skills and knowledge to support learners with special needs. This factor contributed strongly towards successful inclusion of CWDs in those schools. The teachers were able to utilize their skills and knowledge to adapt or prepare teaching/learning materials for CWDs using locally available materials. Learning activities were also adapted to suit learners‟ needs. However, the results revealed that only 25% of the head teachers had been trained. The head teachers ought to be trained in SNE so that they could be acquainted with disability issues. When the school managers are not trained or sensitized, it would be difficult for them to put in place proper structures to enable CWDs learn effectively in their schools.

Another study that was conducted in Kenya by Kamene (2009) put emphasis on the fact that successful collaboration strategies include reinforcement of the planning teams and other professional groups. When these teams work together, they recognise and promote teachers' problem-solving skills and use them as front-line researchers. It is apparent, therefore, that studies by Brownell (2014) and Kamene (2009) did not analyse the influence of adequate trained teachers on retention of pupils with disabilities in mainstreamed primary schools in Bomet County which the present study pursued to investigate.

2.7. Theoretical Framework

This study was embedded on Systems Theory by Bertalanffy (1968).

2.7.1. Systems Theory (Bertalanffy, 1968)

This study was modelled along the Systems Theory as was advanced by Bertalanffy in 1968. The Theory consists of four principles namely: objects, attributes, internal relationships and environment. These basic four principles were expounded as follows: the objects include the parts, elements or variables within the system. They may be physical or abstract or both, depending on the nature of the system. Secondly, it consists of attributes which include the qualities or properties of the system. Thirdly, a system has inter-relationships among its objects, for instance, the inter-connections among the infrastructure and their utilisation. The parties or elements interact closely with one another in full understanding. Fourthly, systems exist in an environment. The environment in this case should be conducive and friendly. According to Infante, Rancer & Womack (1997), a system, therefore, is a set of things that affect one another within an environment and form a larger pattern that is different from any of the parts but serves inter-related functions.

The Systems Theory views an organisation as a social system consisting of individuals or characters. If the organisation is an industrial company, therefore, the personnel cooperate within a formal framework, drawing resources, for instance, finance from their environment and putting back into that environment the products they produce or the services they offer. Systems Theory involves thinking in terms of the whole problem, task, operation or group of integrating subparts. The Theory also monitors the optimum alternative sequences which include interactions, functions or component parts in order to achieve desired outcome (Landers, Myers & Saunders, 1997). Many approaches to various systems or organisations are what make Bertalanffy's Systems Theory important for analysing its applicability to so many different fields.

A learning institution is a social system which is made up of learners, teachers or instructors, Head teachers, Board of Management, parents, guardians, caretakers and support staff participating in all sections and departments of the school. These institutional stakeholders ought to work hand-in-hand with other education providers, for example, education policy makers, sub-sections of education like curriculum developers, book evaluators, producers of teaching-learning materials and supplementary curriculum

support materials, assessors, verifiers, examiners, quality assurance teams, publishers and school equipment suppliers. A learning institution is made of physical infrastructure like classrooms, dining halls, dormitories, libraries, workshops, laboratories and sanitation or lavatory centres which are inter-related in the provision of services.

According to Hannagan (2012), education managers should focus on the roles each part of an organisation plays to enhance productivity. These stakeholders should collaborate in ensuring that appropriate resources are availed in regular mainstreamed schools so as to experience retention of pupils with disabilities. The comfort and the continuity of pupils with disabilities in a common school are hampered if suitable learning materials and other devices are not provided. The education managers have a role to play by ensuring that adequate provision of appropriate resources are put in place. The System Theory has been used by Bizimana, (2014) to determine the correlation between availability of learner centred interactive teaching/learning resources and effective classroom management in Huye District in Rwanda.

The strength of the Systems Theory is that mainstreamed schools can adopt to a number of strategies in either responding or challenging the environment for pupils with disabilities. When the Systems Theory is applied in this context, it provides schools and their leaders a holistic approach to view the complete inclusion and its impact by creating a favourable environment in which to achieve a higher rate of retention for PWDs. The weakness of this Theory is that it did not elaborate clearly the complexity of interactions and inter-relationships that exist, formally or informally, among the elements of the organisation. However, this weakness was overcome by the study in that each variable was clearly defined and its indicators were clearly illustrated. The Systems Theory was applied to this research because of the shared responsibilities in the learning institution among various stakeholders as a social system. The study adapted this theory because it attempted to provide relationships among variables which create a milestone for this research. The study findings could provide information on the way to go and the nature of interactions and relationships that exist, formally or informally, among the elements of the Systems Theory in order to upscale its application.

The Systems Theory should address the interactions and inter-relationships that exist among the structured systems of mainstreamed school management. Some examples to this effect are: making of time-tables, allocation of classrooms, planning and coordination of daily activities within and without the classrooms and distribution of

subjects to the teaching staff according to their expertise. Furthermore, to enhance direction for purposes of retention of pupils with disabilities, communication methods, reporting of events from one level to the other should be cleared. To enhance supervision, collaboration between and among the parents, guardians, care-givers, Boards of Management, teachers and head teachers, especially on matters provision of facilities and internal issuance and distribution be given a priority. Modalities of admission of all learners irrespective of situations and conditions should be put into consideration. However, modes of assessment, verification, test and measurements for purposes of promotion should be fair to all learners for reasons related to retention of PWDs in mainstreamed schools.

2.8. Conceptual Framework

The relationships between independent, intervening and dependent variables are illustrated in Figure 1.

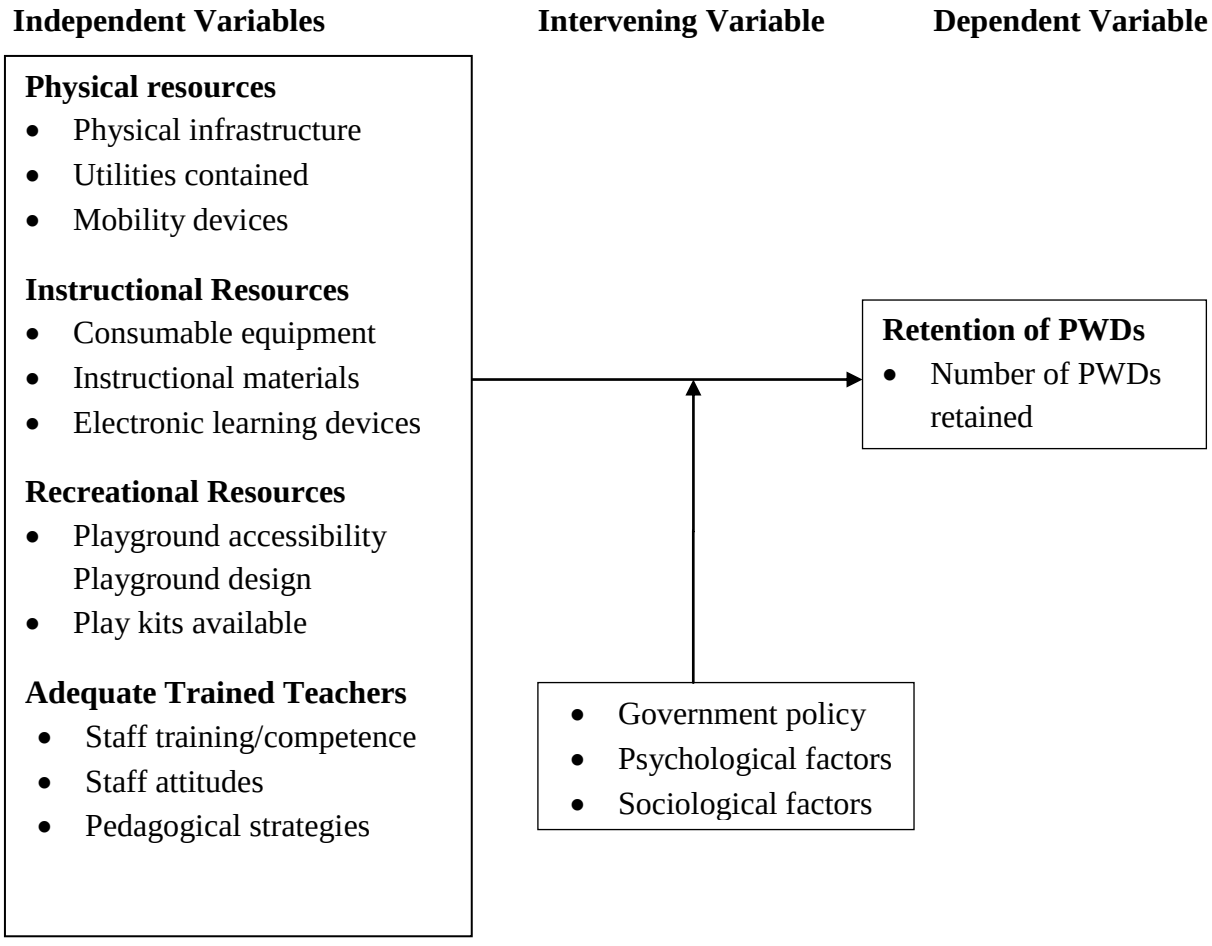

Figure 1: Conceptual Framework

According to Figure 1, there were four indicators for the independent variables namely: physical resources; instructional resources; recreational resources and adequate trained teachers. Physical resources were composed of the following items: physical infrastructure, utilities contained and mobility devices. The instructional resources encompass: consumable equipment, instructional materials and learner centred interactive electronic learning devices or aiders. Furthermore, recreational resources entail playground design, availability of play kits and playground accessibility. Finally, adequate trained teachers refer to the teaching staffs' competence (skilled capital), staff attitudes toward pupils with disabilities and learner centred interactive pedagogical skills. The dependent variable was measured by the number of PWDs who were retained in regular public institutions within a period of four years (2014 to 2017).

The framework also showed that Government policy, psychological and sociological factors were the intervening variables. These variables affected both the independent variables and the dependent variable, for instance, if the Government of Kenya does not endorse a strong policy that reinforces on the provision of appropriate resources which are tailored towards learners with disabilities in mainstreamed primary schools, then the rate of retention of PWDs deteriorates. It was evidenced that when appropriate resources are provided, friendly learning environment is improved, pupils with disabilities enjoy learning in a mixed centre. Many pupils who have disabilities or those who are differently gifted would be motivated to enrol in the community mainstreamed schools and be retained up to their completion level of education. However, in the absence of these resources, retention of PWDs would be negatively affected.

The intervening variables which directly affect the independent variables and dependent variable would be controlled. In the conceptual model, it is clearly indicated that Government policies on mainstreamed learning tend to influence appropriate physical, instructional, recreational resources. Not only has that but also influenced the staffing of adequate trained teachers to mainstreamed schools. Similarly, the psychological factors which encompass stigmatisation, neglect, inferiority, feeling of hate and state of loneliness affect learners with disabilities and cause them to leave school. Not only that but also sociological factors which include marginalisation, discrimination, cultural beliefs and practices, being part of the intervening variables, directly affect both the teachers' attitude and retention of pupils with disabilities if not

controlled. Teachers' utilisation of pedagogical learner centred interactive teaching/learning strategies do require close attention and monitoring putting into consideration the various conditions contained in a common classroom.

All in all, as per the findings of this study displayed in chapter 4, retention of learners with disabilities is enhanced by the appropriate physical infrastructure fully loaded with PWDs' tailored chairs, desks, tables and mobility devices. Furthermore, for purposes of retention of PWDs in mainstreamed learning centres, appropriate teaching and learning equipment, for instance, large print-outs, braille machines, hearing aids, general stationary, pointers and other instructional devices/aiders ought to be provided. Moreover, accessibility to friendly playgrounds fully designed and loaded with conducive play kits motivate users' participation and enhance retention of PWDs in mainstreamed schools.

CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

This chapter describes the research design, study location, target population, sample and sampling procedures, research instruments, data collection and analysis techniques. The validity and reliability of the data collection instruments and ethical considerations that were applied to the study were clarified.

3.2. Research Design

This study utilised a correlational research design. Correlational study is a type of research design where a researcher seeks to understand what kind of relationships naturally occurring variables have with one another (Pace, 2019). The data collected provide a basis for making comparisons and determining trends that potentiate a given situation for the purpose of making decisions (Baxter & Babbie, 2013). This research design was used because it allowed testing of the influence of independent variable on the dependent variable. Accordingly, this study sought to determine the influence of resources and retention of pupils with disabilities. A case of mainstreamed primary schools in Bomet County, Kenya.

3.2.1 Research Philosophy

Research philosophy refers to a system of beliefs and assumptions about the development of knowledge (Saunders, 2015). The study is anchored upon Positivist paradigm. The positivist paradigm position is derived from that of natural science and is characterised by the testing of hypothesis developed from existing theory (hence, deductive or theory testing) through measurement of observable social realities. This position presumes that the social world exists objectively and externally. It also assumes that knowledge is valid only if it is based on observations of this external reality. Positivism paradigm presumes that universal or general laws exist and that theoretical models can be developed and generalized. It can explain causes and effects of relationships and can lead themselves to predicting outcomes. Positivism is based upon values of reason, truth and validity and there is a focus purely on facts, gathered through direct observation and experience. It can also be measured empirically using quantitative methods, for instance, surveys and experiments and can be statistically analysed (Blaikie, 1993; Saunders, Lewis and Thornhill, 2007; Hatch and Cunliffe, 2006). Hatch and

Cunliffe (2006) relate this to the organisational context, stating that positivists assume that what truly happens in organisations can only be discovered through categorisation and scientific measurement of the behaviour of people and systems and that language is truly representative of the reality.

3.3. Location of the Study

Bomet County is made up of five (5) Sub-Counties namely Konoin, Bomet East, Bomet Central, Sotik and Chepalungu. It has 25 Wards, 66 locations, 177 Sub-Locations and 1,977 villages covering a total of 2037.4 square kilometres. It lies between latitudes 0º 29′ and 1º 03′ south and between longitudes 35º 05′ and 35º 35′ east. It is bordered by four counties, namely; Nakuru to the East, Kericho to the North East, Nyamira to the South and Narok to the West. Out of a total land area of 2037.4 square kilometres, a total of 1,716.6 square kilometres is arable and is suitable for farming (Bomet County CIDP Reports, 2018). The population of Bomet County was estimated at 723,813 (50.3% are women and 49.7% are men) in the 2009 Population and Housing Census report where two-thirds of the population constituted persons who are under the age of 30 years and only 5% above 60 years. In reference to the Department of Children, Youth, Culture and Social Services Baseline survey that was conducted in the year 2014, people of all ages who were found to possess disabilities were 7,860. According to table one, 5,121 were children below 15 years. As primary literature review was being carried out, it was discovered that only one published paper had been done in Bomet were people with visual impairment (Kimeto, 2010).

Bomet County borders a long stretch of Mau forest which is an indigenous forest and home to different species of animals, plants and a water tower serving all Counties on its lower range, for example, Nakuru, Narok, Kericho, Kisii, Nyamira and Bomet. However, due to human encroachment, animal life has been threatened and certain species of wild animals, birds, insects and plants are already extinct. In regards to climatic conditions, rainfall in the County is highest in the lower highland zones with a recorded annual rainfall of between 1000 mm and 1400 mm. The upper midland zone which lies west of the Rift Valley experiences uniform rainfall. Rainfall in the upper midland zone, especially in the southern part of the County, is low.

Agriculture is the main occupation of the citizenry of Bomet with mixed farming being widely practiced. The cash crops obtained in this part of the region are majorly tea

in the uplands and coffee in the low lands. Other crops include maize, beans, sweet potatoes, onions, millet and sorghum. Dairy farming is another good source of income. Although the Kipsigis community has a leading population in the region, other communities like the Kisii, Kikuyu, Luo, Maasai and Asian ethnic groups are found mainly in the urban areas. This is a complete description of the location where the study was carried out to determine the influence of resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

3.4 Target Population of the Study

The target population for this study was teachers of mainstreamed primary schools in Bomet County. This was so because the targeted respondents were aware of the status of pupils with disabilities from the time they were admitted to their schools. Head teachers are the immediate supervisors of school management and regular teachers, who were the target population, are the implementers of curriculum in schools. These are the people who are directly linked to their classrooms, associating and mixing well with the pupils they teach. They are always in a position to provide relevant information concerning the type of resources available for Pupils with Disabilities. There were 76 mainstreamed primary schools in Bomet County during the period the study was conducted. The targeted schools were composed of 840 teachers and head teachers inclusive as shown in Table 2.

Table 2: Target Population

Schools	Teachers and Head teachers
76	840

Source: County Government of Bomet. (2017).

3.5. Sampling Procedures and Sample Size

In this section, the researcher discussed the discussed the sampling procedure and the sample size.

3.5.1. Sampling Procedure

Sampling is a technique of choosing a small group of people from a target population to participate in the study. In this process, a number of individuals are selected to represent the larger population (Ogula, 2005 and Mugenda and Mugenda, 2012). This study engaged a multi-stage sampling procedure as shown in 3.5.2.

3.5.2. Sampling of Schools

According to Kahongeh (2018), the most common disabilities in Kenya among learners include visually impaired (3.1 per cent), physically impaired (3 per cent), hearing impaired (1.2 per cent), intellectually impaired (2.5 per cent), speech and language disorder (0.9 per cent), deaf-blind impairment (0.2 per cent) and many others not classified (County Government of Bomet, 2017). This study utilised purposive sampling technique to select schools where various children with disabilities were mainstreamed for an inclusive learning. According to Crossman (2017), purposive sample is a non-probability sample based on characteristics of a population and the objective of the study. This was intensively done throughout the Bomet County. 76 schools were found to be mainstreamed with a population of 840 teachers.

3.5.3. Sampling of Teachers

To obtain the sample size of teachers, Yamane Table. Using the table, a population of 840 gave a sample size of 278 respondents (see appendix IX). Therefore, the sample size for the study was found to be 278 teachers. The sample size was apportioned to the five Sub Counties using proportionate random sampling technique to yield respective sample sizes as shown in Table 3. Lastly, simple random sampling was used to sample the required respondents from the targeted 76 regular mainstreamed primary schools. As a result of this simple random sampling, only three to four teachers were picked from each school according to Curriculum Based Establishment.

Table 3: Distribution of Respondents

Sub County	No. of Schools per Sub County	Total No. of Teachers per SC	Total Sample size obtained
Bomet Central	14	126	42
Sotik	22	200	66
Chebalungu	18	234	77
Konoin	8	88	29
Bomet East	16	192	64
Total	**76**	**840**	**278**

Source: County TSC records (2018)

3.5.4. Sample Size

Sample size measures the number of individual samples or observations used in a survey or experiment (Zamboni, 2017). In this study, the sample size of the study was 278 respondents as shown in Table 3.

3.6. Instrumentation

Research instruments are measurement tools designed to obtain data on a topic of interest from research subjects (Kumar, 2019). This study employed a questionnaire tool to collect primary data. A questionnaire is a research instrument consisting of series of items for the purpose of gathering information from respondents (McLeod, 2018). This tool was aimed at getting representation and unbiased data from the sampled of the population. Questionnaire items were close-ended type and were administered to teachers who were the selected cohort set up for the study. This was so because teachers, especially those trained in special needs education to handle pupils with disabilities regularly in mainstreamed schools, have a wider knowledge of the conditions being faced by such groups of children.

The questionnaire items were classified into a 5 Likert scale. The five scale levels were: strongly Disagree, Disagree, Neutral, and Agree and strongly Agree. Any "Agree" response in the Likert scale meant that the expected resource for a particular given impairment was available while "Disagree" response indicated that the anticipated resource was missing. The Likert scale used corresponding figures ascending from 1 up to 5 for purposes of data entry. This meant that Strongly Disagree was accorded level 1, Disagree was level 2, Neutral was level 3, Agree was level 4 and Strongly Agree was level 5.

The questionnaire was used to collect quantitative data. This research tool was divided into Section A, Section B, Section C, Section D and Section E. Section A had respondents' basic information, Section B had questions related to physical resources, while Section C had items related to instructional resources. Furthermore, Section D had items related to recreational resources and Section E had items related to adequate trained teachers. Finally, Section E had open ended questions that were used to collect data from mainstreamed primary schools.

3.6.1. Piloting of the Instruments

The process of "testing out" was conducted personally by the researcher. The pilot study entailed administering the instruments to a limited number of subjects from a similar population as that of which the eventual project was intended (Welman, Kruger, & Mitchell, 2012). Piloting was conducted in 3 primary schools in Narok County, namely: Salabwek, Kilusu and Rongena. They were selected purposively because they are mainstreamed with similar characteristics as those of the actual study. The schools and the respondents that were used for piloting exercise did not participate in the actual collection of data relating to the study. The 10% of the population was used for pilot study. The piloting exercise aimed at pinpointing problems and shortcomings that the researcher may not have noticed while composing the research tool. All the anomalies in the instruments were worked on accordingly and respectfully. They were fully certified and verified by the University expertise on the same field of study.

3.6.2. Validity of Research Instruments

Validity is the accuracy and meaningfulness of inferences based on research results. This is the degree to which results obtained from the analysis of the data legibly represent and relevant to the phenomenon under study (Bryman, 2012). The questionnaire items were examined through monitoring and evaluation by supervisors of School of Education in the department of Educational Management and Leadership of Kabarak University. They scrutinized the items for purposes of clarity and verified whether they were addressing the topic of the study. The supervisors confirmed that the instruments measured the correct concepts as per the objectives of the study.

3.6.3. Reliability of Research Instruments

Reliability is a measure of the degree to which research instruments yield consistent results after repeated trials (Daymon & Holloway, 2011). This study used test retest method to determine reliability of the research instruments. Test-retest reliability coefficient means that the questionnaire is administered twice to the same group of individuals within a short time by using Pearson Product Moment Correlation Coefficient (PPMCC) where high correlation of response suggests true reliability. This implies that when the two sets of measures are correlated, high correlation establishes and confirms retest reliability ($r > 0.7$). The finding of test-retest reliability is presented in Table 4.

Table 4: Test-retest Reliability

Variable	No of items	Pearson correlation(r)	P value	Decision
Physical resources	11	0.783**	0.000	Reliable
Instructional resources	11	0.740**	0.000	Reliable
Recreational resources	10	0.734**	0.000	Reliable
Adequate trained teachers	12	0.746**	0.000	Reliable

The results of Pearson correlation for all the variables were within the threshold of 0.7 indicating that the items of the instrument were reliable. According to Williams (2017) any value less than 0.7 is considered unreliable and leads to intensive correction of the instrument. Stephannie (2016) reiterates further that when measuring reliability for two tests, Pearson Correlation Coefficient formula is applied for purposes of analysis where the acceptable threshold is 0.7.

Split-half Reliability

This type of reliability was done in order to determine the internal consistency of the data collected using the questionnaire tool. The finding is presented in table 5.

Table 5: Split-half Reliability

Variable	No of Items	Spearman-Brown Coefficient	Decision
Physical resources	11	0.828	Reliable
Instructional resources	11	0.861	Reliable
Recreational resources	10	0.854	Reliable
Adequate trained teachers	12	0.750	Reliable

From Table 5, it is evident that Spearman-Brown Coefficient is greater than the acceptable level of 0.7. This implies that the items tested for the four variables were all reliable.

3.7. Data Collection Procedure

The data was collected in three phases: phase one-piloting of research instruments; phase two-conducting reconnaissance trip and phase three-carrying out the actual study. The researcher sought permission and was authorised through a written letter from the

Institute of Post Graduate Studies of Kabarak University. A permit letter from the National Commission for Science, Technology and Innovations (NACOSTI) was sought and obtained in good time to allow the researcher to proceed to the field. After which, the researcher was granted permission by written letters from the Bomet County Director of Education and the County Commissioner of Bomet to visit mainstreamed primary schools in Bomet County. The researcher wrote a letter to all Head teachers alerting and assuring them of intended mission. Thereafter, consent to collect data was pursued and obtained from the Head teachers of the sampled schools. The researcher selected research assistants and trained them on how to administer the research instruments and truly they were instrumental in performing the exercise. Questionnaires were administered directly to the respondents, reasonable period of time was given to the respondents to fill up the items and thereafter the data was then collected for analysis.

3.8 Data Analysis and Presentation

The researcher organized the quantitative data by meticulously scrutinizing the completed questionnaire items. This was to ensure that the collected data was accurate and consisted which was done through vetting and verification exercise by the researcher. Tallying of scores was uniformly entered and well arranged to facilitate coding and tabulating in preparation for computer analysis. The data utilized quantitative method to calculate frequencies, mean and to obtain percentages for the items in the questionnaires. The analysis was performed with the aid of a tool in computer program known as the statistical package for Social Sciences (SPSS) version 22. For each of the research hypothesis, the following inferential statistics were used. The t-test was used to compute and compare the means of two groups which were independent of each other (unrelated). The ANOVA (F-test) used to compare the means of more than two groups or variables. Pearson Product Moment Correlation Coefficient (PPMCC) was used to prove the existence of statistically significant relationship of physical resources, instructional resources, recreational resources and adequate trained teachers on retention of pupils with disabilities. Finally, regression analysis was used to show the influence of independent variables on dependent variable.

Table 6: Data Analysis Tool

	Research objectives	Statistics	
1	Physical resources.	Means, frequencies, percentages & PPMCC	
2	Instructional resources.	Means, frequencies, percentages & PPMCC	
3	Recreational resources	Means, frequencies, percentages & PPMCC	
4	Adequate trained teachers	Means, frequencies, percentages & PPMCC	
	Research Hypotheses	**Test statistic**	**Decision Rule**
$H0_1$	There is no statistically significant influence of physical resources and retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.	Regression coefficient	$H_0: \beta_1 = 0$ vs $H_a: \beta_1 \neq 0$ Reject H_0 if $p < 0.05$, otherwise fail to reject the H_0
$H0_2$	There is no statistically significant influence of instructional resources and retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya	Regression coefficient	$H_0: \beta_1 = 0$ vs $H_a: \beta_1 \neq 0$ Reject H_0 if $p < 0.05$, otherwise fail to reject the H_0
$H0_3$	There is no statistically significant influence of recreational resources and retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya	Regression coefficient	$H_0: \beta_1 = 0$ vs $H_a: \beta_1 \neq 0$ Reject H_0 if $p < 0.05$, otherwise fail to reject the H_0
$H0_4$	There is no statistically significant influence of adequate trained teachers and retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.	Regression coefficient	$H_0: \beta_1 = 0$ vs $H_a: \beta_1 \neq 0$ Reject H_0 if $p < 0.05$, otherwise fail to reject the H_0
$H0_5$	There is no statistically significant influence of each independent variable and retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.	Regression coefficient	$H_0: \beta_1 = 0$ vs $H_a: \beta_1 \neq 0$ Reject H_0 if $p < 0.05$, otherwise fail to reject the H_0

Source: Researcher (2018)

During hypothesis testing, the significance of difference referred to as null hypothesis was tested and rejected where the p value was less (<) than alpha of 0.05. The significance level, also denoted as alpha (α), was the probability of rejecting the null hypothesis when it was true (Frost, 2015). The dependent variable of retention of pupils with disabilities was analysed and it's interpreted according to Table 7.

Table 7: Interpretation of the dependent variable

Number of PWDS	Code	Interpretation
Less than 40	1	Very low
41-49	2	Low
50-64	3	High
Above 65	4	Very High

The above criteria were used during analysis of the dependent variable.

3.9. Ethical Considerations

It was ethical for the researcher to sought permission from the Institute of Post Graduate studies, the National Commission for Science, Technology and Innovation, Bomet County Commissioner, County Director of Education in Bomet County and the head teachers to allow him carry out research on the influence of resources on retention of pupils with disabilities in mainstreamed Primary Schools in Bomet County, Kenya. It was prudent for the researcher not to inflict any physical or psychological harm when conducting the study. It was also wise for the researcher not to debrief the respondents who would have interest to know the findings of the study after completion of the study. The researcher objectively selected research assistants and briefed them on how to uphold confidentiality and honesty. The respondents' consent to participate in the research process was sought. The respondents were treated with utmost confidentiality concerning the information they gave for study. The researcher esteemed a rapport with the respondents.

Respondents were assured that the data collected and the findings obtained were useful and were to be utilised only for the intended purpose of the study. They were informed of the research aspects, for instance, the credibility of openness and honesty. As the researcher mandated, the respondents did not indicate neither their names nor the names of their schools in the research instrument which enhanced their anonymity. The participants were given freedom to voluntarily participate in the research process.

CHAPTER FOUR
DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1. Introduction

This chapter focuses on analysis of data commencing from respondents' basic information, preliminary factor analysis, and reliability analysis, descriptive and inferential analysis.

4.2. General and Basic Information /Demographic Information

The study analysed data relating to respondent's general information. This include return rate, gender and work experience.

4.2.1. Response Rate of the Respondents

As a result of a sample size of 271 respondents, it was observed that 261 research instruments were returned to the researcher within the expected timeline. This revealed that there was a high return rate of 96% which was seen to provide sufficient data for analysis. A working assumption has been that for a survey to be construed as "good," it must attain a high response rate of 70% (Groves, 2006). This indicated that there was a positive response from respondents. It also indicated that there was a high level of understanding on the side of the respondents on the requirements of the research tool.

4.2.2. Respondents' Gender Participation

The gender of respondents was analysed and presented in Table 8.

Table 8: Respondents' Gender Participation

Variable	Frequency	Percent
Male	134	51.3
Female	127	48.7
Total	**261**	**100.0**

The study showed that male respondents were 51.3% in number while females were 48.7%. This showed a dismal difference of only 2.6%. This means that both gender groups were equally distributed. It also indicated that both gender representations had positive attitude towards the conducted research.

4.2.3 Respondents' Work Experience

The respondents' work experience was analysed and presented in Table 9.

Table 9: Respondents' Work experience

Variable	Frequency	Percent
Low work experience	92	35.2
Average work experience	123	47.1
Vast or great work experience	46	17.6
Total	**261**	**100.0**

The respondents' work experiences were categorised as follows: 1 to 5 years were assigned as low work experience, followed by 6 to 15 years as average work experience. Finally, the category of 16 years and above was classified as vast or high work experience. It was observed that majority of respondents who had average work experience recorded 47.1% while those with low and vast work experiences were 35.2% and 17.6%, respectively. It was believed that teachers who were classified in the category of average experience and vast work experience had broader knowledge on challenges affecting pupils with disabilities (PWDs). This vital information enhanced the validity of the current study. These findings corroborate closely with those of Olaison, Torres and Forssell (2018) who reported that the length or the durability of work experience seems to play a major role on how care managers and school curriculum implementers make decisions. Experienced care managers describe how they deviate from the guidelines at times in order to create an increased scope of action in their decision-making process. Those with less time in their profession describe greater difficulties in this respect. This research benefited greatly because all the mainstreamed schools that were visited had reasonable numbers of well experienced teachers in the profession and had a lot of knowledge on the state and fate of pupils with disabilities in their schools.

4.3. Preliminary Factor Analysis for Construct Validity of Research Instrument.

The Preliminary Factor Analysis (PFA) attempts to discover or explore the unexplained factors that influence the co-variation among multiple observations. These factors represent underlying concepts that cannot be adequately measured by a single variable. Due to the convincing establishments that the main purpose of Preliminary Factor

Analysis is to uncover underlying factors that explain correlations among multiple outcomes (Hall, 2017), it was important to note that the variables studied were at least correlated.

The Preliminary Factor Analysis is a more adequate multivariable technique that was used to indicate that the goal was not only to reduce the number of variables but also to detect structures in the relationships between variables (Maiz, Arambarri, Garcia, & Millán, 2000). In order to attain good constructs' validity at this preliminary level, Exploratory Factor Analysis (EFA) was employed. This also helped to detect that the variables studied were correlated and measured a given construct. This means that variables that were not within the accepted cut off level were considered not valid and should be dealt with before the main analysis.

4.3.1. Sampling Adequacy of Study Variables

The Kaiser-Meyer-Olkin is the measure of sampling adequacy, which varies between 0 and 1. The values closer to 1 are better and the value of 0.5 is the suggested minimum. This test was employed to verify the sampling adequacy of the variables in the study and prove their validity for use as indicated in Table 8. Bartlett's test of sphericity is a statistical test for the presence of correlations among variables, providing the statistical probability that the correlation matrix has significant correlations among some variables. Thus, a significant Bartlett's test of sphericity is required; $p<0.05$ (Hair, Black, Babin, Anderson, & Tatham, 2006). Table 8 shows the results of KMO and Bartlett's Test. This means that when the study variables surpass the established threshold of both Kaiser-Meyer-Olkin and Bartlett's test of sphericity, it suggests that these variables were enough to be subjected for further factor analysis. These tests were employed in the study as presented in Table 10.

Table 10: KMO and Bartlett's Test

Variable	**Kaiser-Meyer-Olkin measure of sampling adequacy.**	**Bartlett's Test of Sphericity**		
		Approx. Chi-square	**Df**	**Sig.**
Physical resources.	0.772	878.823	55	.000
Instructional resources	0.625	2465.853	55	.000
Recreational resources	0.726	542.563	45	.000
Adequate trained teachers	0.703	1097.486	66	.000

The finding showed that the KMO statistic for the four constructs namely: physical resources instructional resources, recreational resources and adequate trained teachers were 0.772, 0.625, 0.726 and 0.703, respectively. These statistics are greater than 0.50, hence, indicating that the sample was enough for factor analysis. Similarly, Bartlett's test of sphericity returned significant values for all the variables. This indicates that there exist sufficient correlations among all items for the four variables. Hence factor analysis was considered as an appropriate technique for further analysis of the data in this study.

4.3.2. Factor Loading for Construct of Physical Resources

Factor loading is an important parameter during the validation of a construct. Yong and Pearce (2013) affirm that a factor loading for a variable is a measure of how much the variable contributes to the factor. Hair et al. (1998) suggest a cut-off of factor loading of at least 0.35 when using a sample size of 250 and above. This threshold was adopted in this study. The results are presented in Table 11.

Table 11: Factor loading for the Construct of Physical Resources

Item	Factor Loading
There are classrooms for PWDs in our school	.615
There are toilets for PWDs in our school	.585
Ramps are available for PWDs in our school	.750
There are desks for PWDs in our school	.490
There are appropriate chairs for PWDs in our school	.490
Pavements are available for PWDs in our school	.804
There are ‘pocket boards’ for PWDs in our school	.794
There are braille machines for visually impaired learners in our school	.678
There are hearing aids for hearing impaired learners in our school	.721
There is supply of light in the classrooms for visually impaired learners	.823
Mobility devices are available, for instance, wheel chairs, crutches, strollers	.791

According to Table 11, all variables of the construct of physical resources have factor loading value higher than 0.35. This indicates that the variables are highly

interrelated with each other. Consequently, all the variables were retained for further analysis. This means that the items used to measure the variable provision of physical resources were all valid.

4.3.3. Factor Loading for Construct of Instructional Resources

The factor loading for the construct of instructional resources was considered for further analysis. The study computed eleven items for purposes of obtaining factor loading for the construct of instructional resources and the results are presented in Table 12.

Table 12: Factor Loading for the Construct of Instructional Resources

Item	Factor Loading
There are adequate stationery supplies for PWDs in our school	.987
Computers for visually impaired learners are provided in our school	.952
There are textbooks for PWDs in our school	.970
Teaching and learning aids e.g. walls full of charts (talking walls) are provided adequately in our classrooms	.504
Reference materials specifically made for PWDs are in the Library	.988
There are digital texts and handouts for PWDs	.924
'Braille print papers' are adequately provided for visually impaired learners in our school	.972
Talking braille are sufficiently provided for visually impaired learners in our school	.722
There are sufficient therapeutic toys for PWDs.	.836
There are embossers in all classes for PWDs.	.763
There are overhead projectors for lesson presentation.	.657

Table 12 shows factor analysis on the second construct of instructional resources. It was noted that majority of items had the highest factor loading above a coefficient of 0.9. The items include the fact that appropriate reference materials specifically made for PWDs are available in the library. It also indicates that there are adequate appropriate stationery supplies for PWDs in school. It was satisfactorily noted that appropriate braille print papers are adequately provided for visually impaired learners in school. It was also proven that there are appropriate textbooks for PWDs in mainstreamed schools. It was

also noted that computers appropriate for visually impaired learners are provided in the same schools. The remaining variables had a factor loading between 0.5 and 0.8. As a result, all variables were retained as they had a factor loading above the recommended cut off.

4.3.4. Factor Loading for Construct of Recreational Resources

Recreational resources were listed for factor loading computation. Table 13 presents variables contained in the recreational resources construct and their factor loadings.

Table 13: Factor Loading for Construct of Recreational Resources

Item	Factor Loading
Facilities like ramps and handrails are installed in the playground for PWDs	.805
Braille labels are appropriately installed in the playground for PWDS	.718
The playground is safe to accommodate games for PWDs	.551
There are enough special games equipment e.g. sand pits, musical instruments and swings	.854
There are enough play-toys for PWDs	.768
There are enough field equipment, for instance, field makers, ropes, first aid kits and many more for PWDs	.687
The playground is accessible to all pupils	.590
There is safe access to outdoor plays for PWDs	.694
There is safe access to indoor plays for PWDs	.672
We have assistive technology, for example, amplified talking braille for PWDs	.546

All variables for the independent construct of recreational resources" have a loading value higher than the cut off 0.30 as shown in Table 13. Therefore, these values indicate that they are highly interrelated with each other. In this case, none of the variables were eliminated, hence, used for succeeding data analysis.

4.3.5. Factor Loading for Construct of Adequate Trained Teachers

Adequate trained teachers as the 4th construct was computed for purposes of obtaining factor loading**.** Table 14 displays the analysed factor loading for adequate trained teachers construct.

Table 14: Factor Loading for Construct of Adequate Trained Teachers

Item	Factor Loading
I am trained on how to use computers to teach PWDs	.669
I am trained on how to use therapeutic toys for PWDs	.917
I am trained on how to communicate in sign language	.802
I am trained on how to handle games equipment for PWDs	.805
I have good relationship with all the pupils I teach	.740
I am trained to handle the appropriate content of PWDs	.628
I am trained to guide and counsel PWDs	.840
I use appropriate instructional skills for PWDs	.575
I have knowledge on how to use assistive devices for PWDs	.927
I used child cantered interactive methods during teaching and learning with the aid of charts, braille and many more	.510
Teachers use appropriate teaching methods for PWDs	.730
Every lesson has a co-teacher to explain the lesson to PWDs using sign language	.762

Table 14 shows factor analysis on construct 'adequate trained teachers'. It was noted that the variable "I have knowledge on how to use assistive devices for PWDs" loaded highest with 0.927. Likewise, the lowest loaded variable includes "I used child centred interactive methods during teaching and learning with the aid of charts, braille and many more". Therefore, all the variables were retained for further data analysis. It means that all the variables had construct validity and were used for further analysis.

4.4. Descriptive and Inferential Analysis for Objective One

The first objective was to determine the influence of physical resources on the retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

4.4.1. Physical Resources

Percentages were computed in order to access the respondents' views in relations to appropriate physical resources and retention of pupils with disabilities. The findings are presented in Table 15 below.

Table 15: Percentages of Physical Resources

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)
Mobility devices are available, for instance, wheel chairs, crutches, strollers	51.0	24.1	9.2	7.7	8.0
There is supply of light in the classrooms for visually impaired learners	31.8	26.1	6.9	5.4	29.9
There are hearing aids for hearing impaired learners in our school	60.9	22.6	3.8	3.1	9.6
There are braille machines for visually impaired learners in our school	68.2	20.7	4.2	5.4	1.5
There are 'pocket boards' for PWDs in our school	61.7	28.0	4.2	4.2	1.9
Pavements are available for PWDs in our school	46.0	26.1	6.9	11.9	9.2
There are chairs for PWDs in our school	51.7	26.1	8.0	8.8	5.4
There are desks for PWDs in our school	51.3	35.6	5.4	4.6	3.1
Ramps are available for PWDs in our school	44.8	25.3	5.4	18.0	6.5
There are Latrines for PWDs in our school	58.6	17.2	8.0	13.4	2.7
There are classrooms for PWDs in our school	38.7	30.3	3.8	6.5	20.7

Key: SD = Strongly Disagree; D=Disagree; N = Neutral; A = Agree; SA = Strongly Agree; and %=Percentages.

Table 15 shows the computed percentages for the outlined items on the construct of physical resources. It was found that 75.1% strongly disagreed and disagreed that appropriate mobility devices were available; these include wheel chairs, crutches, embossers and strollers. This means that when these physical resources are lacking, retention of pupils with disabilities is hindered. This view was upheld by 83.5% and 88.9% of respondents who disagreed that there were appropriate hearing aids for hearing impaired learners in their schools and that there were braille machines appropriate for visually impaired learners. This could be the reason for lack of retention of PWDs.

The finding on physical resources concurs with that of McLeod (2018) who states that learners in a mainstreamed school should be accorded relevant facilities to enhance their education and optimal opportunities for their individual upgrade. It was also noted that Singal (2016) observations agree with the findings of this study by noting that in Pakistan, retention rate of PWDs in regular schools was slowly increasing. However, it was noted that basic school infrastructure continued to remain poor in the Country of Pakistan. This could affect retention of PWDs. This is because when basic school infrastructure for PWDs are lacking, retention could be hampered.

The finding revealed that respondents disagreed that there were classrooms and toilets geared towards PWDs in their mainstreamed schools as observed by 69.0% and 75.8% of respondents, respectively. It can be argued that absence of physical facilities could affect retention of PWDs. The revelation brought forward by the study was supported by the study propagated by Brown (2012) who supports the view that school's physical facilities contribute as much as possible to making learning environment conducive for all groups of learners.

It was further noted that Pijl and Meijer (2016) reiterate that new buildings, for instance, classrooms with ramps and other resources help children with disabilities to move about, to read, to write, to hear and to follow the proceedings of instruction. This was in full agreement with the finding of this section of the study. Despite this requirement, 70.1% and 72.1% of respondents, respectively, in this study disagreed that appropriate ramps and pavements were available for PWDs in their schools. This means that the movements of PWDs during learning were hampered and could affect their retention in regular mainstreamed schools. It was also observed that 77.8% and 86.9% of respondents in the same study disagreed that chairs and desks for PWDs in their schools were available. This could affect retention of PWDs as they were not in a position to effectively study without appropriate resources.

Respondents in this study disagreed that there was supply of light in the classrooms for visually impaired learners (57.9%) as well as lack of 'pocket-boards' for PWDs in their schools (89.7%). This shows that learners who are visually impaired may not be in a position to learn in the absence of adequate classroom lighting. Ismail (2014) and Attig and Hopkins (2014) recommends that providing brightly painted rooms, clean floors, adequate ventilation, adequate lighting and assistive devices encourage all learners' participation. The researchers further opine that these are aimed at ensuring that

learners with disabilities are placed in conducive learning environments which are free from difficulties and complexities.

4.4.2 Mean Description of Physical Resources

Mean statistics were computed for the variable of provision of physical resources. The data analysed is presented in Table 16.

Table 16: Mean Description of Physical Resources

Statement	N	Min	Max	Mean	SD
There are classrooms for PWDs in our school	261	1.00	5.00	2.40	1.55
There are toilets for PWDs in our school	261	1.00	5.00	1.84	1.19
Ramps are available for PWDs in our school	261	1.00	5.00	2.16	1.34
There are tailored desks for PWDs in our school	261	1.00	5.00	1.72	0.98
There are well designed chairs for PWDs in our school	261	1.00	5.00	1.90	1.20
There are pavements are available for PWDs in our school	261	1.00	5.00	2.12	1.35
There are 'pocket boards' for PWDs in our school	261	1.00	5.00	1.57	0.90
There are braille machines for visually impaired learners in our school	261	1.00	5.00	1.51	0.92
There are hearing aids for hearing impaired learners in our school	261	1.00	5.00	1.78	1.26
There is adequate supply of light in the classrooms for visually impaired learners	261	1.00	5.00	2.75	1.65
Mobility devices are available, for instance, wheel chairs, crutches, strollers	261	1.00	5.00	1.98	1.28
Physical Resources overall index	**261**	**1.00**	**4.45**	**1.98**	**0.73**

Teaching children with varied abilities is a big challenge, especially in terms of creating a friendly learning environment. The findings showed that there were lack of appropriate classrooms (mean=2.40), toilets specifically designed (mean=1.84); pavements (mean=2.12) and ramps (mean=2.16) for PWDs in their mainstreamed schools. This implies that those pupils who were enrolled in mainstreamed primary schools had difficulties in learning as well as accessing important resources during their learning. These findings are in line with that of Karande (2014) who conducted a research to find out school based factors influencing the participation of physically challenged learners in public primary schools in Kiambu Municipality.

The findings show that regular public primary schools have unfriendly learning environments which hinder movement and participation of the physically challenged learners. Most of the public primary schools are unable to involve the physically challenged learners in their schools due to lack of the required teaching and learning materials. Therefore, the problem of inaccessible school buildings is a real concern for many students with disabilities.

Participation in quality education is important for all young people as it provides a cornerstone for social inclusion over their lifetime. On the basis of the research findings, it was noted that respondents in this study disagreed that there were desks (mean=1.72) and chairs (mean=1.90) for PWDs in their schools. They also disagreed that there were 'pocket boards' for PWDs in their schools (mean=1.57). This finding agrees with that of New Zealand Human Rights Commission (2010) who suggested that despite the perception of 'education for all' and despite legislation and human rights conventions designed to protect the rights of children to access free education, this is not the reality for some children in New Zealand. Similarly, Kenny, McNeela, Shevlin and Daly (2000) maintain that barriers to education identified by students with disabilities included inaccessible transport, buildings and facilities within the school.

Regarding the learning resources, respondents in this study disagreed that there were hearing aids (mean=1.78) as well as braille machines (mean=1.51). In the absence of these vital materials, learning for PWDs will be disadvantaged. Respondents in this study disagreed that mobility devices, for instance, wheel chairs, crutches, strollers (mean=1.98) and that supply of light in the classrooms were available. These findings corroborate those of Nasiforo (2015) who asserts that learning resources which aid in the learning of students with visual impairment were not available and the learning resources available and examinations were not adapted by the lecturers to suit the needs of students with visual impairment.

In general, the overall mean for the appropriate physical resources was 1.98. This indicated that respondents in this study disagreed that appropriate physical resources for pupils with disabilities were provided in schools. This was the reason why the PWDs were not retained in mainstreamed public schools sampled. It was realised that where appropriate physical resources were missing, retention of PWDs was also negatively influenced. This finding is supported by that of Brown (2012) who viewed that absence of friendly classrooms, dormitories or hostels, libraries and other amenities fully

connected with smooth walkways, ramps, lighting would hamper retention of learners with disabilities who use wheelchairs or white-cane in a common or regular learning school.

4.4.3 Comparison of Physical Resources by Gender

An independent sample t-test was conducted to determine whether there was a significant difference on physical resources by gender at 0.05 Alpha Level. The results are presented in Table 17.

Table 17: Difference in view of Physical Resources by Gender

Gender	N	Mean	SD	Df	t-value	ρ-value
Male	134	1.96	0.68	259	0.190	0.849
Female	127	1.95	0.78			

The finding revealed that there was no significant difference between male and female respondents on the view of physical resource on retention of PWDs at 0.05, t (259) = 0.190, p> 0.05). This means that the physical resources which were supposed to be provided for pupils with disabilities in a given mainstreamed schools were perceived to be unavailable by male (Mean= 1.96; SD=0.68) and female respondents (Mean = 1.95; SD = 0.78). This study corroborates that of Deku and Vanderpuye (2017) who carried out a study to investigate the difference between male and female teachers' perception about inclusive education in terms of the curriculum and physical environment. Results revealed that there were no significant differences between male and female teachers' perception on physical environment (mean = 17.0583, SD = 5.84146); t (118) = .890, p>0.05). This means that both male and female teachers perceived the physical environment and the curriculum in the same perspective. It means gender did not influence the absence or availability of appropriate physical resources for PWDs.

4.4.4. Difference in Physical Resources by Work Experience

An analysis of variance (ANOVA) was used to determine whether there existed a statistically significant difference in the perception of physical resources among the three groups of respondents' work experience. The findings are presented in Table 18.

Table 18: Physical Resources and Retention of PWDs

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	4.411	2	2.205	4.222	.016
Within Groups	**Total**	**139.172**	**260**		

The findings showed that there exists a statistically significant difference in view of physical resources among the three groups of respondents' work experience at the 0.05 level, F (2,258) = 4.222, p< 0.05. A significant difference in the perception of appropriate physical resources among the three groups of respondents' work experience shows that respondents had varied views concerning physical resources in their mainstreamed schools. Thus, the difference in physical resources to PWDs could influence either positively or negatively their retention in mainstreamed schools. The study by Pilj and Meijer (2016) support the respondents who viewed that physical resources enhance retention of PWDs by stating that providing facilities tailored towards learners with disabilities help them to move about, to play, to sit comfortably, listen, follow instructions, and enjoy reading and writing. This statement was further validated by Walsh and Thomas (2015) who stated that when the education managers fail to provide resources or equipment required in a mainstreamed school, for example, hearing aide, vision aide, mobility devices, retention of PWDs is hampered.

4.4.5. Post Hoc Test

Post Hoc Test is a stepwise multiple comparisons procedure used to identify sample means that are significantly different from each other (Lee & Lee, 2018). Multiple comparisons were done to determine the groups that were significantly different among categories of work experience. The findings are shown in Table 19.

Table 19: Multiple Comparisons

(I) Work experience	(J) Work experience	Mean Difference (I-J)	Std. Error	Sig.
Low work experience	Average work experience	-0.248*	.09962	0.035
	Vast work experience	0.034	.13051	0.964
Average work experience	Low work experience	0.248*	.09962	0.035
	Vast work experience	0.282	.12491	0.064
Vast work experience	Low work experience	-0.034	.13051	0.964
	Average Work experience	-0.282	.12491	0.064

*. The mean difference is significant at the 0.05 level.

The findings showed that there exists a significant difference between respondents with low and average work experiences regarding appropriate physical resources to pupils with disabilities (d=-0.248*; p=0.035) in favour of average work experience. Lastly, there was no evidence of significant differences between those with vast and low work experiences as well as those with vast and average experiences regarding physical resources to pupils with disabilities (p>0.005). These statistical calculations of work experience as viewed by respondents on the effect of the availability of physical resources for pupils with disabilities validate the study findings of Chakuchichi (2013) who reiterates that lack of supply of physical facilities that make learning environment conducive for PWDs, negatively affect their retention in schools.

4.4.6. Correlation Analysis between Physical Resources and Retention of Pupils with Disabilities

Pearson correlation test was used to investigate whether there existed any significant influence between physical resources and retention of pupils with disabilities. The analysis was tested at 0.05 level of significance. The findings are presented in Table 20.

Table 20: Correlation between Physical Resources and Retention of Pupils with Disabilities

		Retention of pupils with Disabilities	Appropriate Physical Resources
Retention of pupils with disabilities	Pearson Correlation	1	0.828**
	Sig. (2-tailed)		.000
	N		261

**. Correlation is significant at the 0.01 level (2-tailed).

The study findings indicated that there was evidence of a positive and statistically significant influence of physical resources on retention of pupils with disabilities (r=0.828** p<0.05). This meant that when physical resources are provided to pupils with disabilities, their retention in mainstreamed schools improves. Kamau (2015) found that there was a significant relationship between learning environment and performance of learners with special needs in Kamukunji public primary schools ($r = 0.504$, $p<\alpha = 0.05$). This implies that provision of conducive learning environment could affect retention of PWDs.

4.5. Descriptive and Inferential Analysis for Instructional Resources

The second objective was to investigate the influence of instructional resources on the retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

4.5.1. Provision of Instructional Resources

Percentages, t-test, ANOVA and correlation test were computed. The findings are presented in Table 21.

Table 21: Percentages of Instructional Resources

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)
There are overhead projectors for lesson presentation.	68.6	16.5	6.1	3.8	5.0
There are embossers in all classes for PWDs.	70.1	19.5	0.4	6.5	3.4
There are sufficient therapeutic toys for PWDs.	72.4	21.8	2.3	1.9	1.5
Talking braille are sufficiently provided for visually impaired learners in our school	75.1	16.5	3.1	4.2	1.1
Braille print papers are adequately provided for visually impaired learners in our school	60.5	21.5	5.7	7.7	4.6
There are digital texts and hand-outs for PWDs	56.3	24.5	6.1	6.1	6.9
Appropriate reference materials specifically made for PWDs are in the Library	35.2	28.7	5.7	5.0	25.3
Teaching and learning aids e.g. walls full of charts (talking walls) are provided adequately in our classrooms	70.1	20.7	4.2	1.9	3.1
There are textbooks for PWDs in our school	60.2	21.8	5.7	7.7	4.6
Computers for visually impaired learners are provided in our school	52.9	23.8	6.5	8.4	8.4
There are adequate stationery supplies for PWDs in our school	37.5	26.4	6.1	4.6	25.3

Key: SD = Strongly Disagree; D=Disagree; N = Neutral; A = Agree; SA = Strongly Agree; and %=Percentages.

Every child deserves to receive quality education. Education is a fundamental human right and a social good. It was observed that up to 90.8% of respondents in this study disagreed that appropriate teaching and learning aids, for example, walls full of charts (talking walls) were provided adequately in their classrooms. This indicates that when teaching and learning aids meant for PWDs were lacking, retention would be affected. This finding concurs with that of Okongo, Ngao, Rop and Wesonga (2015) who observe that there were inadequate teaching and learning resources for the implementation of inclusive education at pre-school centres in Nyamira North Sub-County.

Similarly, 91.6 % of respondents in this study disagreed that talking braille and computers (76.7%) were sufficiently provided for visually impaired learners in their schools. Fraser and Maguvhe (2008) reported that visually impaired learners had limited

access to computers, encyclopaedia, and sources of references due to impairment. Similarly, Rayini (2017) reported that some of the library school pupils did not feel there was much attention given to services for blind users, such as talking braille books, in the curriculum. In addition, many librarians are not trained in the needs of learners who are blind or otherwise disabled.

It was realised that 63.9% of respondents disagreed that there were adequate stationery supplies for PWDs in their school and specifically braille print papers (82%). This implies that inadequacy of stationery tailored for PWDs will make their learning difficult. This could be the reason for their lack of retention of PWDs in regular public community schools. This finding was supported by research findings that were generated in Uganda by Ndyabawe (2016) that challenges that hinder children with disabilities enjoying learning in a regular mainstreamed school is lack of teaching and learning materials which may frustrate the progress of such children in advancing their education.

Applicable reference materials provided to pupils with disabilities in mainstreamed Primary Schools is fundamental to any meaningful learning. It was observed by 82% and 63.9% of respondents disagreed that there were appropriate textbooks and reference materials, respectively, specifically made for pupils with disabilities (PWDs) in the learning resource centres in schools. This view was upheld by 80.8% of respondents who disagreed that there were digital texts and handouts for PWDs in schools. This implies that in the absence of appropriate reference materials, PWDs find learning ineffective thus leading to dropping out of learning centres.

The findings of this study on the independent variable of recreational resources corroborate with that of Khan, Ahmad, Ali and Rehman (2011) who state that many materials used by learners in the classrooms are print-based, such as textbooks and hand-outs which learners with disabilities can use more easily. Some types of accessible instructional materials are braille, large print, audio and digital textbooks. These are best for learners with disabilities who may understand information but cannot read. In any learning environment that does not provide these materials, there is a probability that learners with disability could be affected and therefore their retention could as well be hampered.

Learners with disabilities have varied needs during instruction and learning sessions. It was noted that 94.2% respondents disagreed that there were sufficient therapeutic toys for PWDs. A percentage of 89.6 respondents in the study, as well,

disagreed that there were appropriate embossers in all classes for PWDs. It was also realised that 85.1% of respondents observed that there are no overhead projectors for lesson presentation (85.1%). This suggested that learners with disabilities (PWDs) were faced with challenges during learning which could be the reason for their lack of retention in their schools up to the clearance level of their academic works. Furthermore, these study findings were supported by Cooper and McEvoy (2015) and Mittler (2013) who concur that learning equipment that support learners with disabilities and can enhance their retention in the learning areas are adaptive classroom seating, strollers, wheelchairs, standers, large prints, braille machines, hearing aide, sign language interpreters, friendly chairs and lockers, tables, trays and therapeutic toys.

4.5.2 Means of Instructional Resources

A mean, as a measure of central tendency, was computed in the analysis of appropriate instructional resources. The findings are presented in Table 22.

Table 22: Means of Instructional Resources

Statement	N	Min	Max	Mean	SD
There are adequate stationery supplies for PWDs in our school	261	1.00	5.00	2.54	1.62
Computers appropriate for visually impaired learners are provided in our school	261	1.00	5.00	1.96	1.30
There are textbooks for PWDs in our school	261	1.00	5.00	1.75	1.15
Teaching and learning aids, for example, walls full of charts (talking walls) are provided adequately in our classrooms	261	1.00	5.00	1.47	0.91
Reference materials specifically made for PWDs are in the Library	261	1.00	5.00	2.56	1.61
There are digital texts and handouts for PWDs	261	1.00	5.00	1.83	1.21
Braille print papers are adequately provided for visually impaired learners in our school	261	1.00	5.00	1.74	1.15
Talking braille are sufficiently provided for visually impaired learners in our school	261	1.00	5.00	1.40	0.83
There are sufficient therapeutic toys for PWDs.	261	1.00	5.00	1.38	0.76
There are embossers in all classes for PWDs.	261	1.00	5.00	1.54	1.03
There are overhead projectors for lesson presentation.	261	1.00	5.00	1.60	1.09
Provision of Instructional Resources overall index	261	1.00	4.09	1.80	0.62

According to Table 22, appropriate stationery supplies (mean=2.54), teaching and learning aids e.g. walls full of charts (mean=1.47), sufficient therapeutic toys (mean=1.38) and embossers (mean=1.54) were not adequately provided for Pupils with Disabilities. Thus, lack of appropriate stationery as well as teaching and learning aids may hamper learning process for learners with disabilities. It is very probable that this could be the reason for lack of retention in mainstreamed schools. This finding concurs with that of Navigate (2013) and Bhat and Bilal (2012) who asserted that learners with special needs suffer from lack of teaching and learning resources among others.

Moreover, it was noted that appropriate computers (mean=1.96), digital texts and handouts (mean=1.83), 'talking braille' (mean=1.40) and overhead projectors (mean=1.60) were not sufficiently provided to pupils with disabilities impaired learners in schools sampled. It can be noted that lack of accessible instructional materials to PWDs could hinder them from actively participating in learning and consequently affecting their retention. Khan, Ahmad, Ali and Rehman (2011) aver that some types of accessible instructional materials are braille, large print, audio and digital text. These are best for learners with disabilities who may understand information but cannot read. These materials should be provided to PWDs in order to encourage meaningful learning which could improve on their retention.

It was also observed that appropriate reference materials specifically made for PWDs were not available in the Library (mean=2.56). This includes textbooks (mean=1.75) and braille print papers (mean=1.74). This indicates that when appropriate instructional materials are lacking, retention of PWDs could be affected. According to Creemers (2013), some learners with disabilities have difficulty reading textbooks and other learning materials. For example, a learner who is blind may not be able to read a book. A learner who has a physical disability may not be able to hold a book. The same study further reported that to succeed in school, these learners need access to specialised learning instructional materials.

Largely, the overall mean of 1.80 in appropriate instructional resources indicates that respondents strongly disagreed that these resources were provided for PWDs. This means that when instructional resources are lacking, retention of PWDs could be affected. This finding supports Dierkx and Duru (2012) who opine that lack of appropriate provisions in mainstreamed schools denies pupils with disabilities access to

regular learning institutions. This could also affect their retention for those enrolled in mainstreamed learning.

4.5.3 Comparison of Instructional Resources by Gender

An independent sample t-test was conducted to determine whether there was a significant difference on appropriate instructional resources by gender at 0.05 Alpha Level. The results are presented in Table 23.

Table 23: T-test on Appropriate Instructional Resource by Gender

Gender	N	Mean	SD	Df	t-value	ρ-value
Male	134	1.78	0.61	259	-0.431	0.667
Female	127	1.81	0.63			

The finding in Table 23 shows that there was no significant difference between male and female respondents on the view of appropriate instructional resource at 0.05, t (259) = -0.431, p>0.05). This means that the appropriate instructional resources which were assumed to be provided for pupils with disabilities in a given school were realised to be unavailable by male (Mean= 1.78; SD=0.61) and female respondents (Mean= 1.81; SD=0.63).

Okongo, Ngao, Rop and Wesonga (2015) conducted a study aimed at finding out whether availability of teaching and learning resources influenced implementation of inclusive education in pre-school centres in Nyamira North Sub-County. Findings revealed that there were inadequate teaching and learning resources at pre-school centres especially for pupils with special needs. 78 percent of the respondents revealed that inadequate resources affected the implementation of inclusive education. The study recommended that adequate teaching and learning resources should be provided to ensure effective implementation of inclusive education. It further recommended that more funds should be allocated for procuring teaching and learning materials for Special Needs Education (SNE) learners. This implies that when appropriate instructional resources are lacking, retention of PWDs could be hampered.

4.5.4. Difference in Instructional Resources by Work Experience

ANOVA (F-test) was computed in order to determine whether there was a statistically significant difference in perception of instructional resources by work experience. The findings are presented in Table 24.

Table 24: Appropriate Instructional Resources

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.602	2	.301	.787	.456
Within Groups	98.660	258	.382		
Total	**99.262**	**260**			

An inferential statistic referred to as analysis of variance was used to justify the difference of variables. The findings of analysis of variance showed that there was no significant difference among the three groups of work experiences regarding appropriate instructional resources at the 0.05 level, F (0.787) = 0.456, p> 0.05. Hence, respondents with Low, Average and Vast working experiences had similar view regarding appropriate instructional resources provided in their schools. This finding has some similarity with that of Dapudong (2014) who suggests that those teachers without any experience in teaching learners with disabilities were all faced with inadequacy of competence to impart the expected knowledge to such learners. This could affect retention of PWDs. A post hoc test was not run because the ANOVA findings were not significant.

4.5.5. Correlation Test between Instructional Resources and Retention of Pupils with Disabilities.

Pearson product movement correlation coefficient test was used to investigate whether there existed a significant influence between instructional resources and retention of pupils with disabilities. The analysis was tested at 0.05 level of significance. Findings are presented in Table 25.

Table 25: Correlation between Instructional Resources and Retention of Pupils with Disabilities

		Retention of pupils with Disabilities	Appropriate Instructional Resources
Retention of pupils with disabilities	Pearson Correlation	1	0.842**
	Sig. (2-tailed)		.000
	N		261

**. Correlation is significant at the 0.01 level (2-tailed).

The findings showed that there exists a positive and statistically significant influence of instructional resources and retention of pupils with disabilities (r =0.842**; p< 0.05). This indicates that when instructional resources are provided, retention of pupils with disabilities increase in numbers and conversely, in the absence of these resources, retention of pupils with disabilities is faced with enormous challenges. Olaka (2016) who supports this fact by stating that implementation of inclusive education could be influenced by the availability of instruction materials.

However, such materials especially for learners with physical impairments might not be enough or be availed in the majority of mainstreamed schools. Physical facilities influenced implementation of inclusive education for learners with physical impairments although majority of schools lacked some of these facilities. There was a positive relation between teaching methods and the implementation of inclusive education.

4.6. Descriptive and Inferential Analysis for Recreational Resources

The third objective was to determine the influence of recreational resources on retention of pupils with disabilities. A case of mainstreamed primary schools in Bomet County, Kenya.

4.6.1. Percentages of Appropriate Recreational Resources

In the investigation of this variable, a quantitative mode of analysis, for instance, percentages were used as shown in Table 26.

Table 26: Percentages of Recreational Resources

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)
We have appropriate assistive technology, for example, amplified talking braille for PWDs	64.0	23.4	6.1	4.6	1.9
There is easy access to indoor plays for PWDs	54.4	35.6	4.2	4.6	1.1
There is easy access to outdoor plays for PWDs	49.4	29.9	6.5	11.5	2.7
The playground is accessible to all pupils	56.3	23.8	6.9	8.8	4.2
There are enough field equipment, for instance, field makers, ropes, first aid kits etc for PWDs	52.5	24.5	9.2	6.9	6.9
There are enough play-toys for PWDs	34.9	28.0	6.9	4.2	26.1
There are enough special games equipment e.g. sand pits, musical instruments and swings	63.6	21.5	2.3	3.1	9.6
The playground is safe to accommodate games for PWDs	72.4	19.2	4.2	2.7	1.5
Braille labels are appropriately installed in the playground for PWDS	66.3	27.6	1.5	2.3	2.3
Ramps and handrails are installed in the playground for PWDs	50.6	25.7	5.0	10.7	8.0

Key: SD = Strongly Disagree; D=Disagree; N = Neutral; A = Agree; SA = Strongly Agree; and %=Percentages.

All children desire and require good quality playtime in order to develop psychomotor skills. It was noted that 76.3% of respondents disagreed that appropriate ramps and handrails were installed in the playground for PWDs. Appropriate field equipment, for instance, field makers, ropes, first aid kits (77%) as well as that braille labels were appropriately installed in the playground for PWDS (93.9%). This means that pupils with disabilities were faced with challenges of accessing playground as well as field equipment. Since play and its accessories are important for motor development, lack of these materials could affect PWDs retention. This could affect safety of PWDs who wish to engage in sporting activities as reported by 91.6% who maintained that the playground was not safe to accommodate games for PWDs. The barriers to participation in physical activities for pupils with disabilities included inadequate facilities, lack of transport, and lack of programmes and staff capacity (Shields, Synnot, & Barr, 2012).

The provision of easy access to out-door plays helps children to expend their energy and expose their talents. The findings revealed that 80.1% of respondents in the study disagreed that the playground was accessible to PWDs. Respondents also disagreed that there was easy access to outdoor plays for PWDs (79.3%) as well as access to in-door plays for PWDs (90%). This shows that when PWDs lack access to general play, they may remain stressed and inactive during classroom teaching and learning. There is high probability that lack of safe and easy accessibility to play fields could affect the retention of learners with disability.

Observations presented by Hart (2017) and Dierkx and Duru (2012) support this research finding by stating that when assessing and evaluating the accessibilty of the play grounds for an inclusive sport activities for learners with disabilities, consider and ensure that all the necessary equipment are available. This means that proper arrangement of the provided equipment, installing ramps, handrails and placing braille labels. These researchers added that any learning institution that include these facilities for the sake of pupils with disability brings out the best in the learners and harnesses diversity among them for the sake of their individual and collective growth and development. It can also help to promote their lives to a meaningful state of dignity and promise. All children are the same ad must be treated equally in all aspects of life.

Pupils with disabilities should be provided with assistive technologies in order to assist them during play. However, 87.4% of respondents disagreed that they have assistive technology, for example, amplified talking braille for PWDs. Likewise, 85.1% of respondents disagreed that there were enough and appropriate special games equipment e.g. sand pits, musical instruments and swings as well as that there were enough and appropriate play-toys for PWDs (62.9%). When PWDs are not provided with appropriate games equipment, they may get discouraged and others may decide to drop out of school due to frustrations. This could affect their retention. This view corresponds to that of Goldowitz, Collet and Shikako, (2018) who reports that lack of appropriate equipment, coupled with a lack of professionals trained to support physical activity among children and youth with different ability levels, discourages participation. Most extra-curricular physical activity programming in Canada is offered through city and community organisations. There are many excellent accessible sites, but not enough to meet the need, and there is little or no coordination of efforts or offerings.

4.6.2 Mean Description of Appropriate Recreational Resources

Mean statistics were computed for the variable recreational resources. The analysed data is presented in Table 27.

Table 27: Mean of Recreational Resources

Statement	N	Min	Max	Mean	SD
Well design ramps and handrails are installed in the playground for PWDs	261	1.00	5.00	2.00	1.31
Braille labels are appropriately installed in the playground for PWDS	261	1.00	5.00	1.47	0.83
The playground is safe to accommodate games for PWDs	261	1.00	5.00	1.42	0.82
There are enough special games equipment e.g. sand pits, musical instruments and swings	261	1.00	5.00	1.74	1.26
There are enough appropriate play-toys for PWDs	261	1.00	5.00	2.59	1.61
There are enough field equipment, for instance, field makers, ropes, first aid kits etc for PWDs	261	1.00	5.00	1.91	1.23
The playground is accessible to all pupils	261	1.00	5.00	1.81	1.15
There is easy access to outdoor plays for PWDs	261	1.00	5.00	1.88	1.12
There is easy access to indoor plays for PWDs	261	1.00	5.00	1.62	0.86
We have assistive technology, for example, amplified talking braille for PWDs	261	1.00	5.00	1.57	0.94
Provision of recreational Resource overall index	261	1.00	4.30	1.80	0.61

It was noted that respondents disagreed that appropriate ramps and handrails were installed in the playground for PWDs (mean=2.00). They also disagreed that braille labels were appropriately installed in the playground for PWDS (mean=1.47). The study, furthermore, revealed that respondents disagreed that there were enough appropriate special games equipment, for instance, sand pits, musical instruments and swings (mean=1.74). It was further realised from the findings of this study that there was inadequate appropriate field equipment, for instance, field makers, ropes, first aid kits for PWDs (mean=1.91). This means that accessing playground is important feature to enable PWDs to participate in games with other children.

In reference to the results of this current research, it is possible to infer that inaccessible playground could affect retention of PWDs. The findings of this research

concur with that of Bros (2016) emphasises that rather than having a separate section for special needs children, inclusive playground equipment should be designed to allow able-bodied children with physical conditions and children with different developmental or sensory conditions to all playing together on the same equipment, perhaps by using equipment in different ways. This could improve retention of PWDs if catered for.

Safety and accessibility is fundamental to PWDs. It was learnt that the proceedings of Rocha, Desiderio & Massario (2018) research study concur with the findings of this research in that the school context, a playground is an important place for children to participate in recreational activities. As a result of play activities, children acquire knowledge, they develop skills and abilities and they can feel pleasure and express their feelings. However, for the playground to promote the development of children, it must be accessible and safe for all children, including those with disabilities.

It was further explored that the outcomes of Rocha, Desiderio & Massario (2018) and Kakui (2005) research studies agree with the findings of the current study in that the recreational quipment for physical education and sport, although inadequate in quantity, enhance enjoyment of learners with disabilities and motivates their retention in the learning areas. The collaboration that existed between the outcome of this study and that of Rocha, Desiderio Massario (2018) and Kakui (2005) further explained that barriers that contribute to low level of PWDs' paricipation in co-curricular activities were poor provision of equipment, negative school experiences, low expections from both the learners and teachers.

Respondents disagreed that the playground was safe to accommodate games for PWDs (mean=1.42), the playground was accessible to all pupils (mean=1.81). This was not possible to access outdoor plays (mean=1.88) as well as indoor plays for PWDs (mean=1.62). It can be deduced that absence of safe and accessible playground for PWDs may discourage them from being integrated with regular learners who have the resources at their disposal. This could affect retention of PWDs. These findings were in accordance with that of the Kenya National Disability Authority (2014) who reported that barriers which contribute to low levels of participation in physical activity and sport by people with disabilities include lack of access to facilities and programmes, ad hoc structures and approaches as well as transport difficulties. This could be a reason for lack of retention of PWDs.

Availability of appropriate games equipment is important in motor development of Pupils with disabilities. However, the findings revealed that respondents disagreed that there are enough appropriate play-toys for PWDs (mean=2.59) as well as they lack appropriate assistive technology, for example, amplified talking braille for PWDs (mean=1.57). By and large, provision of recreational resource overall index was 1.80. This means that recreational resource for PWDs were lacking. This could affect retention of PWDs. UNICEF (2015) affirms that assistive technology has been a missing link in the chain of prerequisites that enable children with disabilities to lead a life where they enjoy and exercise their rights rather than being deprived of them. This means that the provision of assistive technologies to enhance recreational endeavours could positively affect retention of PWDs.

4.6.3. Comparison of Recreational Resources by Gender

An independent sample t-test was conducted to determine whether there was a significant difference in provision of recreational resources by gender at 0.05 Alpha Level. The results are displayed in Table 28.

Table 28: Difference in view of Recreational Resources by Gender

Gender	N	Mean	SD	DF	t-value	ρ-value
Male	134	1.83	0.60	259	0.867	0.387
Female	127	1.77	0.61			

The finding indicated that there was no significant difference between male and female respondents on the view of recreational resources provided to PWDs in mainstreamed schools which stood at alpha level of at 0.05, t (259) = 0.867, p=0.387. This means that the recreational resources which were believed to be provided for pupils with disabilities in a given mainstreamed school were perceived to be lacking by male (Mean= 1.83; SD=0.60) and female respondents (Mean= 1.77; SD=0.61) which could truly affect their retention of pupils with disabilities in mainstreamed Primary Schools. The findings of this study show a vast relationship with the findings of Shields and Synnot's research study that was conducted in 2016. Both studies agree that children with disabilities face extra-ordinary barriers that hinder them from participation in mainstreamed schools as compared to normal children. The availability of appropriate

recreational resources enhances the retention of PWDs. This indicates that the absence of these facilities tend to affect their retention in mainstreamed learning centres.

4.6.4. Difference in Recreational Resources by Work Experience

The F-test analysis of variance was computed in order to determine whether there was a statistically significant difference in perception of appropriate recreational resources by work experience. The findings are presented in Table 29.

Table 29: Recreational Resource by Work Experience

	Sum of Squares	DF	Mean Square	F	Sig.
Between Groups	1.334	2	.667	1.824	.163
Within Groups	94.336	258	.366		
Total	**95.670**	**260**			

The finding showed that there was no significant difference among the three groups of work experiences regarding recreational resources at the 0.05 level, F (2,258) = 1.824, p> 0.05. This implies that respondents with low, average and vast working experiences had similar view regarding recreational resources provided in their schools. This finding agrees with that of Dapudong (2014) who affirms that there is no significant difference in the perception of teachers when grouped according to experience in teaching students with disabilities. A post hoc test was not run because the ANOVA finding was not significant.

4.6.5. Correlation Test between Recreational Resources and retention of Pupils with Disabilities.

Pearson Product Movement Correlation Coefficients test was used to investigate whether there existed a significant influence of appropriate recreational resources on retention of pupils with disabilities in mainstreamed Primary Schools in Bomet County, Kenya. The analysis was tested at 0.05 alpha and is presented in Table 30.

Table 5: Influence of Appropriate Recreational Resources and Retention of Pupils with Disabilities

		Retention of pupils with disabilities	Appropriate Recreational Resources
Retention of pupils with disabilities	Pearson Correlation		0.846**
	Sig. (2-tailed)		.000
	N		261

**. Correlation is significant at the 0.01 level (2-tailed).

The findings of this study showed that there was strong evidence of a positive and statistically significant influence of appropriate recreational resources and retention of pupils with disabilities in mainstreamed Primary Schools (r=0.846**; p<0.05). This means that when appropriate recreational resources are provided to PWDs, then their retention rate rises while lack of these important resources may lead to a decline in numbers as far as retention of pupils with disability was concerned. The test result of this section of the research study corroborates that of Bros (2016) who observes that rather than having a separate playground equipment for special needs children, an inclusive facility should be designed to allow able-bodied learners with normal physical conditions to jointly participate together with children with different developmental or sensory conditions on the same equipment for sports and games, for instance, Paralympic athletics. Both groups may only but use the provided equipment in different styles. MacAdam (2017) adds that inclusive play enables special needs children to build the necessary social skills and be able to handle any circumstance.

4.7. Descriptive and Inferential Analysis for Adequate Trained Teachers

The fourth objective of the study was to establish the influence of provision of adequate trained teachers on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

4.7.1 Provision of Adequate Trained Teachers

Percentages were used in the investigation of the variable. The study presents findings as follows in Table 31.

Table 31: Percentages of Provision of Adequate Trained Teachers

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)
Every lesson has a co-teacher to explain the lesson to PWDs using sign language	54.0	30.7	7.3	5.7	2.3
Teachers use appropriate teaching methods for PWDs	46.0	26.1	10.3	10.3	7.3
I used child cantered interactive methods during teaching and learning. e.g. charts, braille. etc.	31.4	32.2	11.9	12.6	11.9
I have knowledge on how to use assistive devices for PWDs	71.6	19.2	4.6	2.3	2.3
I use rightful instructional skills for PWDs	63.2	29.9	2.7	1.9	2.3
I am trained to guide and counsel PWDs	50.6	25.3	5.4	10.3	8.4
I am trained to handle the appropriate content of PWDs	56.3	23.0	7.3	8.8	4.6
I have good relationship with all the pupils I teach	52.5	24.5	8.4	6.9	7.7
I am trained on how to handle games equipment for PWDs	35.6	25.7	5.7	4.2	28.7
I am trained on how to communicate in sign language	62.5	21.1	2.7	3.8	10.0
I am trained on how to use therapeutic toys for PWDs	72.0	18.4	4.6	2.3	2.7
I am trained on how to use computers to teach PWDs	55.6	15.3	10.7	13.8	4.6

Key: SD = Strongly Disagree; D=Disagree; N = Neutral; A = Agree; SA = Strongly Agree; and %=Percentages.

It is the right of PWDs to enjoy conducive facilities in regular mainstreamed schools. Children with special needs are best served in specified common integrated institutions (Knowles & Smith, 2014). The study findings, in this regard, noted that 70.9% of respondents in the study disagreed that they were trained on how to use computers. Nevertheless, the use of therapeutic toys for PWDs displayed a percentage of 90.4 while communication through sign language showed a figure of 83.6%. This implies that when teachers lack training on matters regarding special needs for PWDs, it could discourage the students who may not be given attention during learning like other learners. This could affect retention rate of PWDs in mainstreamed schools. A survey that was conducted by National Gender and Equality Commission (2016) agrees with the findings of this research that head teachers were not trained on matters related to disability and at

the same time they did not have adequate trained teachers in the same field. A few head teachers had teachers trained in areas of disability that were not existing in their schools. This meant that staffing of teachers should be done to suit the type of disabilities that are enrolled the schools they manage.

Similarly, 61.3 % of respondents disagreed that they were trained on how to handle games equipment for PWDs. A percentage of 79.3 disagreed that they were able handle the appropriate content of PWDs. In addition to teachers' skills on guiding and counselling for pupils with disabilities, 75.9% of respondents disagreed that they were able. It was noted that respondents did not used appropriate instructional skills for PWDs at a percentage rate of 93.1 while assistive devices for PWDs scored 90.8%). Thus, when teachers are not skilled on how to handle pupils with disabilities, it may affect general learning and retention of learners due to a perception that they are not able and neglected. These findings are in harmony with that of Mwangi (2013) who carried out a research on Special Needs Education (SNE) in public primary schools in Kenya. The findings show that many teachers lack a repertoire of teaching strategies for addressing barriers that frustrate learners with disabilities in mainstreamed classrooms.

The following items in the construct of adequate trained teachers, those who use appropriate teaching methods for PWDs (17.6%) while those who showed a disagreement scored 72.1%. However, 63.6% disagreed that they used child cantered interactive methods during teaching and learning. It was observed that 84.7% of respondents disagreed that every lesson had a co-teacher to explain the lesson to PWDs by using sign language. These findings underpin those of Lake (2016) who indicated that teachers do use differentiated and learner-centred teaching strategies in ensuring inclusion of diverse learners and accommodating for barriers to learning. Lack of time, heavy workload, large class sizes, disobedience and insufficient pre and in-service training were identified as factors which limit teachers' ability to use these methods in the inclusive classroom.

Having a good relationship with learners is a prerequisite for successful knowledge transfer. However, 77.0% of respondents disagreed that they had good relationship with all the pupils. It can be argued that when teachers lack good relationship with learners may lead to frustration by PWDs. This could be a major impediment to retention of pupils with disabilities. Lopez and Corcoran (2014) assert that positive teacher-student relationships play an established role in the developmental

outcomes of students. The research findings suggest that positive teacher-student relationships may be particularly beneficial for students with special educational needs.

4.7.2 Mean Descriptive of Provision of Adequate Trained Teachers

Mean statistics were computed for the variable adequate trained teachers. The data analysed is presented in Table 32.

Table 32: Mean for Adequate Trained Teachers

Statement	N	Min	Max	Mean	SD
I am trained on how to use computers to teach PWDs	261	1.00	5.00	1.97	1.28
I am trained on how to use therapeutic toys for PWDs	261	1.00	5.00	1.45	0.90
I am trained on how to communicate in sign language	261	1.00	5.00	1.78	1.29
I am trained on how to handle games equipment for PWDs	261	1.00	5.00	2.65	1.66
I have good relationship with all the pupils I teach	261	1.00	5.00	1.93	1.26
I am trained to handle the appropriate content of PWDs	261	1.00	5.00	1.82	1.17
I am trained to guide and counsel PWDs	261	1.00	5.00	2.01	1.32
I use rightful instructional skills for PWDs	261	1.00	5.00	1.50	0.83
I have knowledge on how to use assistive devices for PWDs	261	1.00	5.00	1.44	0.87
I used child centred interactive methods during teaching and learning with the assistance of charts, braille etc.	261	1.00	5.00	2.41	1.36
Teachers use appropriate teaching methods for PWDs	261	1.00	5.00	2.07	1.28
Every lesson has a co-teacher to explain the lesson to PWDs using sign language	261	1.00	5.00	1.72	0.99
Provision of Adequate trained teachers Index	261	1.00	4.25	1.90	0.62

According to Table 32, respondents disagreed that they were trained on how to use computers by a mean of 1.97; while therapeutic toys scored a mean of 1.45 and how to handle the appropriate content of PWDs (mean=1.82). Teachers essential that every serving teacher be trained on special or disability issues. The findings of this research validate that of Walton & Nel (2012) who established in their research findings that teachers are essential in achieving the goals of inclusive education, teacher training and development of appropriate knowledge, skills and attitudes needed for inclusive

education is said to be essential to the success of inclusion and promotion of retention of PWDs in mainstreamed Schools. This means that pupils with disabilities who were supposed to benefit from the teachers' expertise could find themselves more frustrated when they fail to achieve their goals in learning and might lead to their drop-out from school. This is tandem to the problem that this study sought to find, that is retention of PWDs in mainstreamed primary schools in Bomet County, Kenya. In Britain, Mattingly and McInerney (2015) reported that teachers have inadequate training in inclusive methodologies and cannot deal with the range of children with disabilities.

Similarly, respondents disagreed that they were trained on how to communicate in sign language (mean=1.78) and how to handle games equipment for PWDs (mean=2.65) as well as knowledge on how to use assistive devices for PWDs (mean=1.44). Further, respondents disagreed that they were trained to guide and counsel PWDs (mean=2.01). Lack of proper training was seen to influence relationships with the pupils they taught adversely (mean= 1.93). This revelation suggests that when teachers cannot communicate their learning objectives to PWDs, they may get frustrated and drop out of school. This could be a reason for lack of retention of PWDs in mainstreamed learning. These findings acknowledge those of Donohue and Bornman (2014) who argue that South African teachers lack the skills and knowledge for teaching diverse learners in one classroom without substantially increasing their workload.

Regarding teaching methods, respondents disagreed that they used child centred interactive methods during teaching and learning with the assistance of charts, braille etc (mean=2.41). They also disagreed that they used appropriate instructional skills for PWDs (mean=1.50) specifically appropriate teaching methods for PWDs (mean=2.07). This could affect the PWDs as they will continuously lag behind and others may lose interest in learning. Additionally, respondents disagreed that every lesson had a co-teacher to explain the lesson to PWDs using sign language (mean=1.72). The finding agrees with that of De Jager (2013) who realised through a research conducted in South African on the use of differentiated instructional methodologies in an inclusive classroom, that teachers highlighted lack of training in dealing with learners' diverse barriers to learning.

Similarly, the study findings concur with the works of Engelbrecht, Oswald, and Forlin (2006) where they used the British Index for Inclusion in three Western Cape primary schools revealed that teachers had insufficient development and training

opportunities as well as that they lacked knowledge about dealing with diverse learners' needs and behaviours. In overall, provision of adequate trained teachers' index was 1.90. This indicated that these adequate trained teachers were deficient among teachers sampled hence could affect retention of PWDs.

4.7.3 Comparison of Adequate Trained Teachers by Gender

An independent sample t-test was conducted to determine whether there was a significant difference in appropriate recreational resources by gender at 0.05 Alpha Level. The results are displayed in Table 33.

Table 33: Difference in Perception of Adequate Trained Teachers by Gender

Gender	N	Mean	SD	Df	t-value	ρ-value
Male	134	1.91	0.60	259	0.346	0.729
Female	127	1.88	0.64			

The findings indicated that there was no statistically significant difference between male and female respondents regarding adequate trained teachers at 0.05, t (259) = 0.346, p=0.729. This means that the adequate trained teachers believed to be lacking by male (Mean= 1.91; SD=0.60) and female respondents (Mean= 1.88; SD=0.64). This signifies that in the absence of adequate trained teachers, retention of PWDs could be affected. This finding agrees with that of Gathumbi, Ayot, Kimemia and Ondigi (2015) who affirmed that there was general lack of teacher training on pedagogy and knowledge on how to handle pupils with special needs. This means that trained teachers on special needs education could have a positive influence on retention of pupils with disabilities.

4.7.4 Difference in Adequate Trained Teachers by Work Experience

The F-test (ANOVA) was computed in order to determine whether there was a significant difference in perception of adequate trained teachers by work experience. It seemed as if the more the teachers remain in the same station for a reasonable period of time, the higher they are equipped with information on the needs of pupils with disabilities they handle in mainstreamed learning institutions they serve. The findings are presented in Table 34.

Table 34: Adequate Trained Teachers by Work Experience

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1.115	2	.557	1.450	.236
Within Groups	99.172	258	.384		
Total	**100.287**	**260**			

The findings showed that there was no significant difference among the three groups of work experiences regarding adequate trained teachers at the 0.05 level, F (2,258) = 1.450, p> 0.05. This implies that respondents with low, average and vast working experiences had similar view regarding adequate trained teachers as provided in their schools. This means that when adequate trained teachers are lacking, retention of PWDs could be affected. However, this finding deviates from that of Brownell (2014) who comments that experienced teachers demonstrated more knowledge in decoding and predicting that learners with difficult circumstances are helped to overcome challenges. This deviation might have been brought about by the fact that adequate trained teachers were lacking in the study area. Lusweti (2014) observes that special needs education teachers, physical facilities and resources in the schools were either unavailable or inadequate and 85% of the teachers did not attend training, seminars or workshops on special needs education. This research finding is in agreement with that of Asenath (2015) who recommended that despite the good will from school administration to support the teaching force, many of the schools did not have trained teachers to handle children with disabilities. As a result of this shortage, the retention rate of PWDs is greatly affected. Furthermore, Huang and Waxman (2016) validated the fact that varied approaches should be put in place so that teachers can adopt to better means supporting learners with special needs in their schools. Teachers deserve to be trained more in the area of special needs education and be provided with the necessary facilities and resources so as to be able to instruct or teach learners with disability to enhance their retention in mainstreamed primary schools. Solicitation for external support from other agencies and well-wishers. A post hoc test was not run because the ANOVA finding was not significant.

4.7.5 Correlation Test on Adequate Trained Teachers and Retention of Pupils with Disabilities.

Pearson correlation test was used to investigate whether there existed a significant influence of adequate trained teachers and retention of pupils with disabilities. The analysis was tested at 0.05 Alpha and is shown in Table 35.

Table 35: Influence of Adequate Trained Teachers on Retention of Pupils with Disabilities

		Retention of pupils with Disabilities	Adequate trained teachers
Retention of pupils with Disabilities	Pearson Correlation	1	.866**
	Sig. (2-tailed)		.000
	N		261

**. Correlation is significant at the 0.01 level (2-tailed).

The finding in Table 35 showed that there was strong evidence of a positive and statistically significant influence of adequate trained teachers on retention of pupils with disabilities (r=0.866**; p<0.05). This means that when adequate trained teachers are provided to serve among the PWDs, children with disabilities' retention rate increases. Absence of this important resource may lead to a decline in their retention in mainstreamed public primary schools. Mwaimba (2014) observes that teachers' academic and professional qualification influenced implementation of inclusive education in public primary schools. However, when teachers lack professional skills in teaching PWDs, the retention of pupils with disabilities is greatly affected.

4.7.6 Retention of Pupils with Disabilities

The dependent variable of the study which was retention of pupils with disabilities was analysed and the findings were presented in Table 36.

Table 36: Retention of Pupils with Disabilities

Categories	Frequency	Percent
very low	99	37.9
Low	131	50.2
High	26	10.0
very high	5	1.9
Total	**261**	**100.0**

The analysis was conducted and it was found that 37.9% reported that the retention of pupils with disability was very low. In addition, up to 50.2% of the respondents indicated that the retention was as well low. This implies that there could be a problem on the availability of appropriate resources for pupils with disabilities which could affect their retention. This finding acknowledges that of Bakhshi, Babulal and Trani (2017) who observed that vulnerable children, particularly children with disabilities, were less likely to start school.

These researchers further observed that children with special needs are more likely to drop out of school earlier and before completing their designated level of education. The non-disabled children are seen to comfortably complete primary school grades and transit to high schools without any hitch. This shows that the learning process is not inclusive in practice. The gap is wider for girls, economically deprived children, or children from households where the head is uneducated as observed by Baxter and Babbie (2013). Similarly, Ngiria (2013) affirms that unfavourable environmental barriers affected learners, teacher and host pupils' negative attitudes as well as lack of efficient teacher competencies in teaching affected learners with disabilities in urban refugee centres. This is an enormous indication that lack of fully designed resources provided for learners with disabilities in mainstreamed primary schools and provision of adequate trained teachers, seriously affect retention of learners with disabilities.

4.7.7 Mean Description of Retention of Pupils with Disabilities

The findings in table 37 display the mean description of retention of pupils with disabilities (PWDs).

Table 37: Mean Description of Retention of PWDs

Statement	N	Min	Max	Mean	Std. Dev
Mean retention of pupils with disabilities	261	.00	200.00	23.11	29.06
Valid N (list-wise)	261				

The study finding revealed that the mean descriptive statistics on retention of pupils with disabilities was 23.11 with a standard deviation of 29.06. This shows that a small number of pupils with disabilities were retained in mainstreamed primary schools from a total of 200 in the sampled mainstreamed primary schools in Bomet County, Kenya.

4.8. Regression Analysis

The fifth objective was to establish the predictive capacity of each independent variable on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya. To realise this objective, multiple linear regression analysis was computed. The findings were presented subsequently.

4.8.1. Model Summary

The model summary of the regression shows the amount of influence by the independent variables on the dependent variable. The findings are presented in Table 38.

Table 38: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.927[a]	.860	.858	.263

a. Predictors: (Constant), Provision of Adequate trained teachers, instructional resources, physical resources, recreational resources

It was observed that physical resources, instructional resources, recreational resources, and provision of adequate trained teachers explain 85.8% in retention of pupils with disabilities with an error term of 0.263. It was realised that 14.2% was not accounted for by the model and could be explained by other factors outside the study variables. This means that all these predictor variables account up to 85.8% in retention of PWDs leaving only 14.2% as unexplained variation.

4.8.2. Model Significance

Table 39 shows the outcome of the significance of the regression model as computed using the analysis of variance. The findings are presented in Table 39. The responses of this research were computed using the Analysis of Variance to obtain the frequency level.

Table 39: Analysis of Variance (ANOVA) [a]

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	108.736	4	27.184	393.792	.000[b]
Residual	17.672	256	.069		
Total	**126.408**	**260**			

a. Dependent variable: Retention of Pupils with Disabilities
b. Predictors: (constant), Adequate trained teachers, instructional resources, physical resources and recreational resources

The model was highly significant in predicting the influence of appropriate physical resources, instructional resources, recreational resources, and adequate trained teachers on retention of pupils with disabilities at 0.05, $r^2 = 0.860$, $F(4, 256) = 393.792$; $p < 0.05$. In general, t-test assesses only one regression coefficient at a time while F-test in regression coefficient compares the fits of different linear models. The F-test can assess multiple coefficients simultaneously. F-test of the overall significance is a specific form of ANOVA computed to show the significant difference among variables. It compares a model with no predictors to the model that you specify. A regression model that contains no predictors is also known as an intercept-only model (Minitab, 2015).

4.8.3 Influence of Independent Variables

The net influence of each independent variable was presented by the Regression Coefficients. The results are presented in Table 40.

Table 40: Regression Coefficients[a]

Model	Unstandardized Coefficients		T	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
(Constant)	-.179	.055	-3.266	.001		
Physical resources	.192	.044	4.394	.000	.261	3.831
Appropriate instructional ɔources	.421	.042	10.128	.000	.402	2.491
Recreational resources	.253	.057	4.438	.000	.222	4.505
Adequate trained teachers	.250	.063	3.975	.000	.174	5.747

a. Dependent Variable: Retention of Pupils with Disabilities

In this study, Collinearity Statistics were computed in order to verify if the predictor variables were highly correlated. Multi-collinearity, or near-linear dependence, is a statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated (Jensen & Ramirez, 2013). Multi-collinearity is measured by Variance Inflation Factors (VIF) and tolerance. A commonly given rule of thumb is that VIFs of 10 or higher may be the reason for concern (Kutner, Nachtsheim & Neter, 2004). The results in Table 38 show that all the predictor variables had VIF below 10 suggesting that the multi-collinearity problems were not present in the model. Hence the predictor variables were independent in predicting retention of pupils with disabilities Regarding the unstandardized coefficients**,** appropriate physical resources and appropriate instructional resources significantly influence retention of pupils with disabilities (B=0.192 and B=0.421 respectively). Similarly, provision of adequate trained teachers and appropriate recreational resources were seen to influence significantly the retention of pupils with disabilities in mainstreamed Primary Schools (B=0.253 and B=0.250 respectively). Therefore, appropriate instructional resources are the highest predictor in this study with a coefficient of 0.421 on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

4.9. Hypothesis Testing

In view of the unstandardized beta coefficients, null hypotheses were tested at 0.05 alpha level such that the null hypothesis is rejected where the p value is less (<) than alpha level of 0.05. Five hypothesis tests were computed for all the constructs. The major

variable predictors were: physical resources, instructional resources, recreational resources, adequate trained teachers and generally, the predictive capacity of all the independent variables. The findings of these variables are displayed in table 39.

H_{01}: There is no statistically significant influence of physical resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

Table 41: Regression Coefficients[a]

Model	Unstandardized Coefficients		T	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
(Constant)	.179	.055	3.266	.001		
Physical resources	.192	.044	4.394	.000	.261	3.831
Instructional resources	.421	.042	10.128	.000	.402	2.491
Recreational resources	.253	.057	4.438	.000	.222	4.505
Adequate trained teachers	.250	.063	3.975	.000	.174	5.747

a. Dependent Variable: Retention of Pupils with Disabilities

According to Table 41, the p value (p=0.000) for the independent variables, physical resources was less than 0.05 alpha level. This indicates that the null hypothesis was rejected and decision was made that physical resources tailored towards pupils with disabilities have a significant influence on retention of that cohort of learners in mainstreamed primary schools in Bomet County, Kenya. This indicates that the availability of appropriate physical resources has a positive influence on retention on pupils with disabilities. However, it means that when these resources are lacking, retention of PWDS could be affected negatively.

The study by Global Partnership for Education (2017) suggests key barriers affecting education for children with disabilities to include lack of infrastructure, learning materials and teaching strategies for inclusive education. These also include lack of financial resources and poor inter-ministerial coordination. These barriers were cited to hamper education in many countries of the world. Bomet County, where this research on the status of retention of pupils with disabilities was concentrated, is not exclusive of these barriers as part of the extraneous factors affective effective education for pupils with disabilities in mainstreamed or integrated primary schools.

Additionally, a study by (UNICEF, 2016) reports that physical environment of schools is not accessible to some children with disabilities. The schools observed were in poor conditions, and even if they were renovated or newly constructed classrooms displayed unfriendly condition to PWDs and their maintenance was below standard. Inaccessible and dangerous pit latrines also posed a challenge to children with disabilities. Due to type of disability, for instance, physical impairment where mobility is a challenge or sight issues as a result of complete blindness or half-blind, utilising the facility becomes a challenge.

The second hypothesis stated that:

H_{02}: There is no statistically significant influence of instructional resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya. According to Table 39, appropriate instructional resources variable had a p value of 0.000. Since it was less than 0.05 alpha, the null hypothesis was rejected and a conclusion made that appropriate instructional resources significantly influence retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya. It was realised that the availability of instructional resources has as positive influence on retention of PWDs because the learning environment is conducive for learning.

However, the absence of instructional resources tailored towards PWDs could hamper their retention up-keep in mainstreamed schools. Hence, these findings concur with that of Gichohi (2014) who found out that the influence of teaching and learning resources for PWDs and their retention indicated that schools have teaching/learning resources at a ratio of 1:4 which proved inadequacy of proper learning and, therefore, negatively affect PWDs' retention in mainstreamed schools. The ratio of learning materials to pupils is poor and this negatively influences retention of pupils in the integrated schools. Pupils leave school because they are not able to get the necessary learning resources in their community mainstreamed schools.

The third hypothesis stated that:

H_{03}: There is no statistically significant influence of recreational resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya.

According to Table 39, recreational resources variable had a p-value of 0.000. This value was less than 0.05 alpha level and led to a rejection of the predicted null hypothesis. A conclusion was, therefore, made that recreational resources have a

significant influence on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya. This is because PWDs require recreational resources to promote their psychomotor domain. However, lack of recreational resources could affect negatively retention of PWDs in mainstreamed schools. The finding concurs with that of Swiss Academy for development (2019) who asserts that barriers to participation by pupils with disabilities on sporting activities include lack of accessible facilities, such as gymnasiums and buildings as well as limited accessible transportation to the playgrounds

The fourth hypothesis stated that:

H_{04}: There is no statistically significant influence of adequate trained teachers on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya. According to Table 39, the p value of the provision of adequate trained teachers' variable was 0.000. This value being less than 0.05 alpha led to the rejection of a perceived null hypothesis and a conclusion was made that adequate trained teachers significantly influenced retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya. This implies that when teachers are trained on matters of disabilities, they are in a position to teach and handle pupils with disabilities appropriately.

There was an agreement between the finding of this study with that of Ogero (2015) who asserts that there is need for both the classroom teachers and the subject teachers to get trained in special needs education so as to successfully handle inclusive education in their schools. Besides this, it was established that inadequate materials due to overpopulated classrooms posed a great challenge to teachers on implementation of quality inclusive education. Similarly, a research conducted by National Gender and Equality Commission (2016) reports that lack of a clear implementation framework of the special needs education policy, inadequate funding, and inadequate teachers with the right skills to teach children with disabilities hampered access by children with disabilities. This was coupled with negative altitudes, poverty, limited awareness by parents, insecurity and unsuitable institutions.

The fifth hypothesis stated that:

H_{05}: There is no statistically significant difference in predictive capacity of each independent variable on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya. According to Table 39, all the independent variables had different Beta coefficients which were all significant. This led to a rejection of a null hypothesis and a conclusion was made that there was a statistically significant difference in predictive capacity of each independent variable on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya. This means that the predictive capacities for the independent variables were different such that instructional resource was the highest predictor with 0.421 on retention of pupils with disabilities while physical resource was the least predictor with 0.179 on retention of pupils with disabilities. These findings go hand in hand to agree with that of Selita (2017) who stated that the learning environment aspects such as availability of textbooks, teaching aids and social facilities such as out-door and in-door games equipment affect retention rate for pupils with disabilities in public primary schools in Hindi Division, Lamu West Sub County.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter presents a summary of key findings of the study. It also highlights the study findings, conclusions and recommendations. Lastly, the suggested areas for further research are outlined.

5.2. Summary of the Study

The general of objective of this study was to determine the influence of resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya. The objectives were to: determine the influence of physical resources, Instructional resources, recreational resources and adequate trained teachers on retention of pupils with disabilities in mainstreamed primary schools in Bomet County.

5.2.1 Physical Resources on Retention of Pupils with Disabilities

Teaching children with varied abilities is a big challenge, especially in terms of creating a friendly learning environment for all.

The findings of this research study showed that there were lack of well design classrooms, toilets; pavements and ramps for pupils who are gifted differently and those with various disabilities in their mainstreamed schools. Most of the public primary schools are unable to involve the physically challenged learners in their schools due to lack of the necessary teaching and learning materials tailored to be-fit learners with disabilities. Therefore, the problem of inaccessible school buildings due to lack of ramps and other physical provisions is a real challenge and concern for many pupils with disabilities.

Participation in quality education is important for all young people as it provides a cornerstone for social inclusion over their lifetime. On the basis of research findings, it was noted that schools still lack appropriate desks and chairs for pupils with disabilities or differently abled pupils in their mainstreamed schools. Furthermore, appropriate ‘pocket-boards’ for PWDs in mainstreamed schools were lacking.

Regarding the learning resources, it was found that schools did not have appropriate hearing aids as well as braille machines. In the absence of these vital materials or equipment, learning for PWDs would be disadvantaged. Furthermore, schools lack

appropriate mobility devices and that supply of light in the classrooms for partial sight impairment was inadequate.

5.2.2 Instructional Resources and Retention of Pupils with Disabilities

Every child deserves to receive quality education. Education is a fundamental human right and a social good. It was evident that instructional resources specifically stationery supplies; teaching and learning aids, sufficient therapeutic toys were not provided for PWDs.

Moreover, it was noted that appropriate computers digital texts and handouts 'talking braille' and overhead projectors were lacking to pupils with disabilities. It was also observed that appropriate reference materials were not available in the Libraries. This includes textbooks and braille print papers.

5.2.3. Recreational Resources and Retention of Pupils with Disabilities.

Accessing playground is important feature to enable PWDs to participate in games with other children. The findings indicated that ramps and handrails were missing in the playground for PWDs. Additionally, braille labels as well as special games equipment e.g. sand pits, musical instruments and swings were lacking.

Safety and accessibility are essential factors to pupils with disabilities. The study found that the playground was not accessible and safe to accommodate games for pupils with disabilities (PWDs).

Availability of appropriate games equipment is vital in psychomotor development of pupils with disabilities. Nevertheless, the findings revealed that play-toys for PWDs were not available. Besides, assistive technology, for example, amplified talking braille for PWDs were also not available. By and large, recreational resource for PWDs were lacking. This could affect retention of PWDs in mainstreamed schools.

5.2.4. Adequate Trained Teachers and Retention of Pupils with Disabilities

Trained teachers are a vital component in inclusive centres of learning. From the study, it was found that teachers were not trained on how to use computers as well as use of therapeutic toys for PWDs. This implies that when teachers lack training on matters regarding special needs for PWDs, it could discourage the students who may not be given attention during learning like other learners. This could affect retention of PWDs in mainstreamed primary schools.

The finding also showed that schools lack trained teachers on how to handle games equipment for PWDs and to handle the appropriate content for the same category of learners in addition to guiding and counselling them. This negatively affects retention of PWDs as they are forced by such circumstances to drop out of school.

Teachers use appropriate teaching methods for PWDs. Yet, the study found that teachers did not use Child Centred Interactive Methods (CCIM) during teaching and learning. Moreover, every lesson lacked a co-teacher to explain and interpret the lesson to PWDs using sign language interpretation.

Having a good relationship with learners is a prerequisite for successful knowledge transfer. It can be argued that when teachers lack good relationship with learners, discouragement may befall the teachers and learners with disabilities may get frustrated. This could be a major impediment to retention of pupils with disabilities.

5.3. Conclusions

The study concludes with regard to the objectives that;

i Availability of resources remains a major factor that is viewed to influence significantly retention of pupils with disabilities. However, schools did not have adequate learning resources such as appropriate hearing aids as well as braille machines. In the absence of these vital materials or equipment, learning for PWDs would be disadvantaged. Furthermore, schools lack appropriate mobility devices and that supply of light in the classrooms for partial sight impairment was inadequate and was recorded as a matter of concern.

ii Physical resources as well as instructional resources significantly influence retention of pupils with disabilities. It was clearly shown through the collected information that the presence of appropriate facilities, many learners with disabilities were retained in schools. Nevertheless, inadequate instructional resources were provided for PWDs, specifically stationery supplies; teaching and learning aids and reference materials. It was also noted that therapeutic toys were insufficient. Further, the schools did not provide appropriate computers, digital texts and handouts, talking braille and overhead projectors were lacking for pupils with disabilities.

iii Provision of adequate trained teachers significantly influences the retention of pupils with disabilities in mainstreamed Primary Schools The schools did not

provide appropriate recreational resources for PWDs. Play-toys for PWDs were not available. Besides, assistive technology, for example, amplified talking braille for PWDs were also not available. The lack of recreational resource for PWDs could affect retention of PWDs in mainstreamed schools.

iv Appropriately designed recreational resources significantly influence the retention of pupils with disabilities in mainstreamed primary schools. Teachers were not trained on how to use computers as well as use of therapeutic toys for PWDs. This affected retention of PWDs in mainstreamed primary schools. This implied that teachers who lacked training on matters related to pupils with disabilities, caused a lot of lack of retention for PWDS. It could discourage the learners who may not be given attention during learning like other normal bodied learners.

5.4. Recommendations

On the basis of the study findings, the following recommendations were made:

i. Physical resources are necessary for retention of pupils with disabilities in mainstreamed schools.
ii. Instructional resources such as textbooks, supplementary curriculum support materials, learning devices or aiders including braille kits, printouts, pointers, embossers friendly to pupils with disabilities be supplied to improve their retention in mainstreamed primary schools.
iii. Teachers should be well trained in matters relating to PWDs through in-service courses.
iv. In-door and out-door equipment be availed to promote their retention of PWDs in mainstreamed schools.

5.5 Policy Recommendations

i. The study recommends that Ministry of Education generates a policy that enforces a supply of appropriate and friendly instructional resources for pupils with disabilities in order to enhance their retention in mainstreamed schools.
ii. The Kenya Institute of Curriculum Development need to design and incorporate a curriculum on inclusive education that should be made compulsory and examinable in Teacher Training Colleges in order to equip and motivate prospective teachers to abreast on matters knowledge, skills and accord positive

attitude on pupils with disabilities in mainstreamed primary schools for purposes of enhancing their retention.

5.6 Suggestions for Further Research

Based on the study findings of the research conducted on the influence of appropriate resources on retention of pupils with disabilities, some of the deserving areas that require further research are:

A study should be conducted on specific resources geared towards respective impairments so as to enhance retention in schools.

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APPENDICES

Appendix I: Introductory Letter to Head Teachers

Kabarak University,
P. O. Box 20157,
Kabarak.
2nd July, 2018.

Dear Head Teacher,

I am a Doctor of Philosophy student at Kabarak University in the School of Education. I do plan to carry out a research study on the "**Influence of Resources on Retention of Pupils with Disabilities: A Case of Mainstreamed Primary Schools in Bomet County, Kenya."**

Your school has been selected to be among the mainstreamed primary schools to be visited in Bomet County. The target population expected to participate in the study as respondents are all teachers in the schools to be visited.

I, therefore, request you to allow the researcher and his data collection assistance to conduct a research survey in your school by using questionnaire items to be distributed to them. In order to ensure that the captured information is treated with confidentiality, your teachers will neither indicate their names nor the name of the school. The data collected from amongst your teachers will not be used for any other purpose other than the intended purpose of the research study.

I pray that you spare your time to assist and ensure that this research succeeds as it intends to assist education providers and care managers in providing appropriate resources for learners with disabilities for purposes of increasing retention rates in various mainstreamed schools in Bomet County.

Sincerely,

Daniel Kipkirui Ng'eno

Appendix II: Introduction Letter for Teachers

Kabarak University,
P. O. Box 20157,
Kabarak.
2nd July, 2018.
Dear Respondent,

I am a Doctor of Philosophy student at Kabarak University, School of Education. I do plan to carry out a research study on the "**Influence of Resources on Retention of Pupils with Disabilities: A Case of Mainstreamed Primary Schools in Bomet County, Kenya."**

You are one of the teachers requested to participate in this research study by completing the attached survey questionnaire items. In order to ensure that all information remain confidential, kindly do not indicate neither your name nor the name of your school. As you participate in this research, please answer all questions as honestly as possible and the questionnaires will be collected immediately you finish completing them. All the collected data will be used for the intended purpose only.

Thank you in advance for taking your time to assist me conduct this research which intends to benefit children with disabilities in regular mainstreamed or integrated schools in Bomet County.

Sincerely,

Daniel Kipkirui Ng'eno

Appendix III: Teachers' Questionnaire

Please use a (√) to indicate your response.

Section A: Basic Information

1. Indicate your Gender

Male ( ) Female ( )

2. For how long have you served as a teacher in your current school?

1 -5 years ( ) 6 -10 years ( )

11-015 years ( ) 16 years and above ( )

Section B: Physical Resources

Please rate the tabulated statements using the scale of 1 – 5 below by ticking it appropriately.

(1 –Strongly Disagree; 2 – Disagree; 3-Neutral; 4 – Agree; 5 – Strongly Agree)

No	Statement	1	2	3	4	5
3	There are appropriate classrooms for PWDs in our school					
5	There are latrines for PWDs in our school					
6	Ramps are available for PWDs in our school					
7	There are desks for PWDs in our school					
8	There are suitable chairs for PWDs in our school					
9	Pavements are available for PWDs in our school					
10	There are 'pocket boards' for PWDs in our school					
11	There are braille machines for visually impaired learners in our school					
12	There are appropriate hearing aids for hearing impaired learners in our school					
13	There is adequate supply of light in the classrooms for Visually Impaired Learners					
14	Mobility devices are available, for instance, wheel chairs, crutches, strollers					

Section C: Instructional Resources

Please rate the tabulated statements using the scale of 1 – 5 below by ticking them appropriately. **(1 –Strongly Disagree; 2 – Disagree; 3-Neutral; 4 – Agree; 5 – Strongly Agree)**

No	Statement	1	2	3	4	5
15	There are adequate stationery supplies for PWDs in our school					
16	Computers appropriate for visually impaired learners are provided in our school					
17	There are designed textbooks for PWDs in our school					
18	Appropriate teaching and learning aids e.g. walls full of charts (talking walls) are provided adequately in our classrooms					
19	Reference materials specifically made for PWDs are in the Library					
20	There are digital texts and handouts for PWDs					
21	Braille print papers are adequately provided for visually impaired learners in our school					
22	Talking braille are sufficiently provided for visually impaired learners in our school					
23	There are sufficient therapeutic toys for PWDs.					
24	There are appropriate embossers in all classes for PWDs.					
25	There are overhead projectors for lesson presentation.					

Section D: Recreational Resources

Please rate the tabulated statements using the scale of 1 – 5 below by ticking them appropriately. **(1 –Strongly Disagree; 2 – Disagree; 3-Neutral; 4 – Agree; 5 – Strongly Agree)**

No	Statement	1	2	3	4	5
26	Appropriate ramps and handrails are installed in the playground for PWDs					
27	Braille labels are appropriately installed in the playground for PWDS					
28	The playground is safe to accommodate games for PWDs					
29	There are enough special games equipment e.g. sand pits, musical instruments and swings					
30	There are enough play-toys for PWDs					
31	There are enough field equipment, for instance, field makers, ropes, first aid kits etc for PWDs					
32	The playground is accessible to all pupils					
33	There is easy access to outdoor plays for PWDs					
34	There is easy access to indoor plays for PWDs					
35	We have appropriate assistive technology, for example, amplified talking braille for PWDs					

Section E: Adequate Trained Teachers

Please rate the tabulated statements using the scale of 1 – 5 below by ticking it appropriately. **(1 –Strongly Disagree; 2 – Disagree; 3-Neutral; 4 – Agree; 5 – Strongly Agree)**

No	Statement	1	2	3	4	5
36	I am trained on how to use computers to teach PWDs					
37	I am trained on how to use therapeutic toys for PWDs					
38	I am trained on how to communicate in sign language					
39	I am trained on how to handle games equipment for PWDs					
40	I have good relationship with all the pupils I teach					
41	I am trained to handle the content of PWDs					
42	I am trained to guide and counsel PWDs					
43	I use instructional skills for PWDs					
44	I have knowledge on how to use assistive devices for PWDs					
45	I used child cantered interactive methods during teaching and learning with the aid of charts, braille. etc.					
46	Teachers use interactive teaching methods for PWDs					
49	Every lesson has a co-teacher to explain the lesson to PWDs using sign language					

Section F: Retention of PWDs

46. Indicate the number of PWDs who were retained in your school among the 2014 cohort? …….**.....**…….

47. Indicate the number of PWDs who were retained in your school in 2015 among the 2014 cohort? …….

48. Indicate the number of PWDs who were retained in your school in 2016 among the 2014 cohort? …….

49. Indicate the number of PWDs who were retained in your school in 2017 among the 2014 cohort? …….

Appendix IV: Records of PWDS Unretained

Kindly indicate the number of PWDS who were not retained between 2014 and 2017.

Year	**Number of PWDS who were retained**
2014	680
2015	720
2016	900
2017	859
Total	**3,159**

In every given year between 2014 and 2017, pupils who had enrolled in mainstreamed primary schools dropped gradually without any explained reason. This was a general comment from teachers add Head teachers in the visited schools. This raised concerned which prompted this study. The findings that were established and analyzed can prove the reasons for drop-out resulting on dismal figures for retained PWDS. Out of 5,121 PWDS enrolled in Primary Schools, 484 were retained in year 2014. 362 were retained in 2015; 490 were retained in 2016 while in 2017, 626 pupils were retained giving a total figure of 1,962. A total of 3159 were not retained at all. Checking the number of PWDs retained from the cohort of 2014, those who were retained in 2015 were 400. Out of the same cohort of 2014, those who retained in 2016 were 361. Considering the number of PWDs of who were retained in 2017 from the same cohort of 2014, only 200 in the entire County of Bomet were retained as per the teachers reports advance in the open ended items in the questionnaire.

Appendix IV: Postgraduate Authorization Letter

INSTITUTE OF POST GRADUATE STUDIES

Private Bag - 20157
KABARAK, KENYA
E-mail: directorpostgraduate@kabarak.ac.ke

Tel: 0773265999
Fax: 254-51-343012
www.kabarak.ac.ke

29th August, 2018

Ministry of Higher Education Science and Technology,
National Council for Science, Technology & Innovation,
P.O. Box 30623 – 00100,

Dear Sir/Madam,

RE: RESEARCH BY NGENO DANIEL KIPKIRUI-GDE/M/0934/09/10

The above named is a student at Kabarak University taking PhD Degree in Educational Management and Leadership. He is carrying out research entitled **"Influence of Provision of Resources on Retention of Pupils with Disabilities in Mainstreamed Primary Schools in Bomet County, Kenya"**

The information obtained in the course of this research will be used for academic purposes only and will be treated with utmost confidentiality.

Please provide the necessary assistance.

Thank you.

Yours faithfully,

KABARAK UNIVERSITY DIRECTOR POSTGRADUATE STUDIES 01 AUG 2018 PRIVATE BAG-20157, KABARAK

Dr. Betty Tikoko
DIRECTOR – (POST GRADUATE STUDIES)

Kabarak University Moral Code

As members of Kabarak University family, we purpose at all times and in all places, to set apart in one's heart, Jesus as Lord. (1 Peter 3:15)

Kabarak University is ISO 9001:2015 Certified

Appendix VI: NACOSTI Research Authorization

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471, 2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/18/79286/25183**

Date: **24th September, 2018**

Daniel Kipkirui Ngeno
Kabarak University
Private Bag - 20157
KABARAK.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Influence of provision of resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya"*** I am pleased to inform you that you have been authorized to undertake research in **Bomet County** for the period ending **20th September, 2019.**

You are advised to report to **the County Commissioner and the County Director of Education, Bomet County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

DR. MOSES RUGUTT, PHD, OGW
DIRECTOR GENERAL/CEO

Copy to:

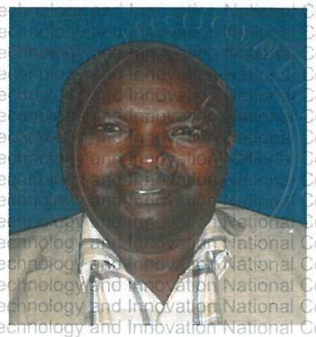
The County Commissioner
Bomet County.

The County Director of Education
Bomet County.

Appendix VII: NACOSTI Research Permit

THIS IS TO CERTIFY THAT:
MR. DANIEL KIPKIRUI NGENO
of KABARAK UNIVERSITY, 1614-20200
KERICHO,has been permitted to conduct
research in *Bomet County*
on the topic: *INFLUENCE OF PROVISION OF RESOURCES ON RETENTION OF PUPILS WITH DISABILITIES IN MAINSTREAMED PRIMARY SCHOOLS IN BOMET COUNTY, KENYA*
for the period ending:
20th September,2019

Permit No : NACOSTI/P/18/79286/25183
Date Of Issue : 24th September,2018
Fee Recieved :Ksh 2000



.....
Applicant's Signature

.....
Director General
National Commission for Science, Technology & Innovation

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

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

CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

National Commission for Science, Technology and innovation
P.O. Box 30623 - 00100, Nairobi, Kenya
TEL: 020 400 7000, 0713 788787, 0735 404245
Email: dg@nacosti.go.ke, registry@nacosti.go.ke
Website: www.nacosti.go.ke

REPUBLIC OF KENYA

National Commission for Science, Technology and Innovation

RESEARCH LICENSE

Serial No.A 20780

CONDITIONS: see back page

Appendix VIII: County Commissioner Authorization Letter

OFFICE OF THE PRESIDENT

MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL GOVERNMENT

Telegrams: "DISTRICTER", Bomet
Telephone: (052) 22004/22077 Fax 052-22490
When replying please quote

COUNTY COMMISSIONER
P.O BOX 71- 20400
BOMET

REF: EDU 12/1 VOL.III/(150)

11th July, 2019

All Deputy County Commissioners
Bomet County

RE: RESEARCH AUTHORIZATION – MR. DANIEL KIPKIRUI NGENO

The above named person has been authorized to carry out research on "**Influence of provision of resources on retention of pupils with disabilities in mainstream primary schools in Bomet County, Kenya**," by the National Commission for Science, Technology and Innovation vide their letter Ref. No. **NACOSTI/P/18/79286/25183** dated **24th September, 2018** for the period ending **20th September, 2019**.

Any assistance accorded to him would be appreciated.

Nereah Kotonya
For: County Commissioner
BOMET

COUNTY COMMISSIONER
BOMET COUNTY
17 JUL 2019
P. O. Box 71-20400, BOMET

Appendix IX: Ministry of Education Authorization Letter

REPUBLIC OF KENYA
MINISTRY OF EDUCATION
STATE DEPARTMENT OF EARLY LEARNING AND BASIC EDUCATION

Telegrams: "ELIMU",
Telephone: 052-22265
When replying please quote
email:cdebometcounty@gmail.com
Ref/CDE/BMT/ED/AUTH/74/VOL.II/4

COUNTY EDUCATION OFFICE,
BOMET COUNTY,
P.O. BOX 3-20400,
BOMET.

10TH JULY, 2019

Daniel Kipkirui Ngeno
Kabarak University
Private Bag -20157,
KABARAK.

RE: RESEARCH AUTHORIZATION.

Reference is made to yours from NACOSTI Ref: No NACOSTI/P/18/79286/25183 dated 24th September, 2018 on the above subject.
Permission is hereby granted to carry out research on "***Influence of provision of resources on retention of pupils with disability in mainstreamed primary schools in Bomet County, Kenya"***; *for* the period ending 20th September, 2019.

Ensure, you present a copy of the research to County Director of Education-Bomet

This letter should be presented to the principal of the schools visited for the said purpose.

COUNTY DIRECTOR OF EDUCATION
P. O. BOX 3-20400 BOMET
Date.....

INDIATSI MABALE
COUNTY DIRECTOR OF EDUCATION
BOMET COUNTY.

CC
DIRECTOR NACOSTI

Appendix X: Yamane's Table of Sample Size Determination

Required Sample Size†

Population Size	Confidence = 95% Margin of Error				Confidence = 99% Margin of Error			
	5.0%	3.5%	2.5%	1.0%	5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	196	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1067	427	636	827	1119
1,500	306	515	759	1297	460	712	959	1376
2,000	322	563	869	1655	498	808	1141	1785
2,500	333	597	952	1984	524	879	1288	2173
3,500	346	641	1068	2565	558	977	1510	2890
5,000	357	678	1176	3288	586	1066	1734	3842
7,500	365	710	1275	4211	610	1147	1960	5165
10,000	370	727	1332	4899	622	1193	2098	6239
25,000	378	760	1448	6939	646	1285	2399	9972
50,000	381	772	1491	8056	655	1318	2520	12455
75,000	382	776	1506	8514	658	1330	2563	13583
100,000	383	778	1513	8762	659	1336	2585	14227
250,000	384	782	1527	9248	662	1347	2626	15555
500,000	384	783	1532	9423	663	1350	2640	16055
1,000,000	384	783	1534	9512	663	1352	2647	16317
2,500,000	384	784	1536	9567	663	1353	2651	16478
10,000,000	384	784	1536	9594	663	1354	2653	16560
100,000,000	384	784	1537	9603	663	1354	2654	16584
300,000,000	384	784	1537	9603	663	1354	2654	16586

Appendix XI: The Map of Bomet County