

**THE INFLUENCE OF ADEQUATELY TRAINED TEACHERS ON  
RETENTION OF PUPILS WITH DISABILITIES IN MAINSTREAMED  
PRIMARY SCHOOLS IN BOMET COUNTY, KENYA**

**\*DANIEL KIPKIRUI NGENO<sup>1</sup>, HENRY K. KIPLANGAT<sup>2</sup>,  
FREDERICK B.J.A. NGALA<sup>2</sup>**

<sup>1</sup>Kabarak University, Kenya

<sup>2</sup>Professor, Kabarak University, Kenya

<https://doi.org/10.37602/IJSSMR.2020.3519>

**ABSTRACT**

This study establishes the influence of adequately trained teachers on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya. This study was embedded in the Systems Theory by Bertalanffy. It adopted a correlational research design. The target population was 840 teachers. The sample size constituted of 271 teachers. The multi-stage sampling procedure was applied. The data were collected using questionnaire which was self-administered to the respondents. The collected data was then coded and analysed using percentages. Moreover, correlation analysis was run to analyse the existence of the relationship and the influence of the independent variable on the dependent variable. The findings of the study revealed that the provision of adequately trained teachers was seen to influence significantly the retention of pupils with disabilities in mainstreamed Primary Schools ( $\beta = 0.253$ ). The study concludes that the provision of adequately trained teachers significantly influences the retention of pupils with disabilities in mainstreamed Primary Schools. Teachers were not trained on how to use computers as well as the use of therapeutic toys for pupils with disabilities. This affected retention of pupils with disabilities (PWDs) in mainstreamed primary schools. This implies that when teachers lack training on matters regarding special needs for learners with disabilities, it discourages the students who may not be given attention during learning like other learners. The study recommends that teachers should be well trained in matters relating to pupils with disabilities (PWDs) through in-service courses.

**Keywords:** Trained teachers, Retention, Pupils, Disabilities, Mainstreamed primary schools

**1.0 INTRODUCTION**

Disability is a worldwide challenge affecting many school going-age children from pursuing their studies. According to the World Health Organization (2011), approximately one billion people in the world have a form of disability, 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 disabilities 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. Teachers trained to support mainstreamed learning are a critical component in enhancing the success of integrated program. In Australia, Walsh (2012) reports that there are no sufficient number of teachers who are available to meet the support needed for learners with disabilities. The few who are available have insufficient training to enable them 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.

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) (2010) dealing with children services and skills 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 OFSTED (2010) indicate that when these matters concerning quality assurance for PWDs are emphasized, the better statistical retention rate is realised. 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 marginalized groups (UNESCO, 2010). This shows that there is a problem with the retention of PWDs in mainstreamed primary schools.

There is an issue of poor retention of disabled pupils in standard conventional 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 (Moyi, 2017). 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 a period of 4 years. According to the County Government of Bomet (2014), 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).

## 2.0 LITERATURE REVIEW

### 2.1 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 attention. 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 organization, 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.

Societies should be engaged in a change of attitude on matters of disability among children. Thomas (2015) notes that illiteracy is high among all categories of disability in many African countries. Thomas (ibid) 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 an optimistic change of attitude by families and communities. Idol (2006), 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 study pursued.

According to the observations of Miller (2013), in India, it is estimated that 33-40% of out-of-school children worldwide have disabilities. It is reported that the 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 leftover 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.

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 a 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. The United Nations Educational, Scientific and Cultural Organization (UNESCO) (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.

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 Muthoni, Otube and Ondigi (2016) 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 a 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.

Intervention measures have to be established to prevent the problem from re-occurring. A study carried out by the di Marco (2016) revealed that the participation of girls in primary education was very low. According to this study, among the learners entering standard one, only 80% of the girls reached standard four and 35% entered standard eight. 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 contact 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.

Similarly, the time has come when societies should get rid of social beliefs and practices which are connected to disability for purposes of enrolment and retention of pupils with disabilities in mainstreamed schools (Mantey, 2014). Bunning et al. (2017) found out that local beliefs attributed disability to the 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 pupils with disabilities (PWDs) in mainstreamed schools. However, these studies did not explore the influence of resources designed to enhance retention of pupils with disabilities in mainstreamed primary schools.

## 2.2 Adequately Trained Teachers on Retention of Pupils with Disabilities

Human capital investment in form of education is a major tool for sustainable development. A research done in the United States of America by Knowles and Smith (2014) shows that mainstreamed practices and activities have been carefully developed and implemented by trained teachers in the entire school system. Nevertheless, the study expedited by Knowles and Smith failed to examine the positive influence of adequately trained teachers on retention of pupils with disabilities in mainstreamed primary schools which was one of the objectives carried out by the present study.

Furthermore, the expertise of the teaching force in expending their potentiality among learners with a disability is pertinent. According to Dagnew (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 the individual needs of learners with disabilities.

Implementation of the 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 the 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 adequately trained teachers on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya, which was the focal point of this study.

## 2.3 Teacher experience in mainstreamed Learning

Brownell and Pajars (2014) advance 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 and Pajars (2014) did not explore the influence of provision of adequately trained teachers on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya, which the present study focused on. Asenath (2015) establishes that teachers should accept the fact that their behaviour can affect the education of their pupils.

Ajayi (2015) 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 learners to attain potential in their academic achievements.

Some Kenyan researchers have attempted to bring an understanding of what makes a teacher be of high integrity and quality by investigating the relationship between teachers' characteristics and learners' achievement. Teacher characteristics like aptitude, course work was taken and certification status positively influences learners' performance as stated by Lone (2016). Alhassan and Abosi (2014), aver that teachers have limited competence in adapting 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) and Ajayi et al. (2015), 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.

## **2.4 Teacher qualification**

Well trained teachers have no problem handling learners with disabilities. Brownell and Pajars (2014) reveal that teachers with high academic scores possessed a mastery of the subject matter which made them serve learners with disabilities better. Another study conducted by Thomas (2015), argues 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.

National Gender and Equality Commission (2016) disclosed that headteachers did not have enough trained teachers while others had teachers trained in areas of disability not generally required in their schools. In regard to the suitability of curriculum for children with disabilities, the schools reported that efforts have been made to adapt the regular curriculum. 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.

The research by Mwaimba (2014) reveals that teachers with high academic scores possessed a 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.

## **2.5 Mastery of the subject matter**

Mastering the teaching approaches and strategies is a key component among the teaching staff. MacGuine and Molbjerg (2011), cited in Lambe and Bones (2006), explain 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 the 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.

When personnel handling learners with disabilities are exposed to concrete training, then the sustainability of pupils with disabilities (PWDs) in public mainstreamed centres of learning is promoted. Brownell and Pajars (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 an 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 teachers, exposing teaching staff to intensive training is a 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 of special needs or disability. They normally do not expect to teach learners with disabilities due to the lack of specialized skills.

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 adequately trained teachers on retention of pupils with disabilities in mainstreamed primary schools which the present study pursued. It is assumed that teacher training positively influences their attitudes and competence. In addition, training has been identified as significantly contributing to a more favourable attitude than those who have not received training (Lipsky & Gartner, 2016) Training institutions ought to cater for an inclusive curriculum that make all learners be all-rounded in the acquisition of knowledge. Dierkx and Duru (2012) note that the 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. Dierkx and Duru (2012) further assert that teachers tend to seek advice most often from other teachers and

perhaps surprisingly, from parents, particularly in relation to the behaviour of learners with special needs.

According to Brownell and Pajars (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. According to Dierkx and Duru (2012), training and professional development of teachers hold a significant key to the success of mainstreaming programmes in regular schools.

In Kenya, school-based courses have been found to be more useful in developing skills and increasing confidence. Karande (2014) observes that the university short term courses may develop generic skills that encourage teachers to continue with those instructional practices. Many teachers serving in mainstreamed primary schools are not trained on how to use the tools tailored for learners with disabilities. Mwangi (2013) reiterated that many teachers lack a repertoire and knowledge for applying the strategies for addressing barriers that frustrate learners with disabilities in pursuing their education in mainstreamed classrooms. This study did not look at how the distribution of adequately trained teachers as a resource affects the 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 recognize 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.

Owuor (2014) displays the fact that the dropout rate amongst those disabled children who attend school was estimated at 75% compared to 40% amongst their non-disabled 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 specialized 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. Findings by Owuor (2014) indicates that on-going teacher training or professional capacity developments is a vital component for successful inclusive education. Another study that was conducted in Kenya by Kamene (2009) puts emphasis on the fact that successful collaboration strategies include reinforcement of the planning teams and other professional groups. When these teams work together, they recognize and promote teachers' problem-solving skills and use them as front-line researchers. It is apparent, therefore, that studies by Brownell and Pajars (2014) and Kamene (2009) did not analyse the influence of adequately trained teachers on retention of pupils with disabilities in mainstreamed primary schools in Bomet County which the present study pursued to investigate.



## 3.0 METHODOLOGY

This study utilized a survey research design. Kathuri and Pals (1993) state that survey research design explains a phenomenon as it appears in its actual state. This research design was used because the phenomena that were investigated was not manipulated but only observed descriptively.

The study was carried out in mainstreamed primary schools in Bomet County, Kenya. 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. Teachers are the immediate supervisors and implementers of the curriculum in schools and are directly linked to their classrooms and pupils they teach. They are always in a position to provide relevant information concerning equipping of resources which deem appropriate for PWDs. There were 76 mainstreamed primary schools in Bomet County during the period of this study. The targeted schools were composed of 76 headteachers and 840 teachers as shown in Table 1.

**Table 1: Target Population**

Schools	Head teachers	Teachers
76	76	840

### 3.1 Sampling technique

Sampling is a technique of choosing a sub-group 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). This study engaged a multi-stage sampling procedure:

#### 3.1.1 Sampling of schools

According to Kahongeh (2018), the most common disabilities in Kenya among learners include visually impaired (3.1%), physically impaired (3%), hearing impaired (1.2%), intellectually impaired (2.5%), speech and language disorder (0.9%), deaf-blind impairment (0.2%) and many others not classified. This study utilized a purposive sampling technique to select schools where various disabilities were mainstreamed. According to Crossman (2017), the purposive sample is a non-probability sample that is based on characteristics of a population and the objective of the study.

#### 3.1.2 Sampling of Teachers

To obtain the sample size of teachers, Yamane's (1967) formula was applied as shown below:

$$n = \frac{N}{(1 + Ne^2)}$$

Where  $n$  = sample size

$N$  = Target population size

$e$  which is the alpha level = 0.05

$$n = 840 / (1 + 840 \times 0.052)$$

$$n = 840 / 3.1$$

$$n = 271$$

Therefore, the sample size for the study was 271 teachers. The sample size was apportioned to the five Sub-Counties using proportionate sampling technique to yield respective sample sizes for each Sub-County and mainstreamed primary school as shown in Table 2 below. Lastly, simple random sampling was used to sample the respondents such that only three or four teachers were selected from each of the schools according to the staffing establishment.

**Table 2: Distribution of Respondents.**

Sub County	No. of schools per sub county	No. of teachers per school	Total No. of Teachers per SC	No. of Teachers sampled per school	Total Sample size
Bomet Central	14	9	126	3	41
Sotik	20	10	200	3	65
Chebalungu	18	13	234	4	75
Konoin	8	11	88	4	28
Bomet East	16	12	192	4	62
<b>Total</b>	<b>76</b>		<b>840</b>		<b>271</b>

Source: County Government of Bomet (2014).

### 3.2 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 271 respondents as shown in Table 2. The sample was 32.3% of the total study population. This study employed a questionnaire tool to collect primary data. The questionnaire was of a self-administered type, where respondents were issued and given time to provide data. The questionnaire was used as the chief instrument of data collection because it could provide quantitative data which could be used for the analysis.

### 3.5 Data Analysis

The data were analyzed descriptively and quantitatively. Specifically, percentages, as well as correlations, were employed. Correlation analysis was used to analyze the existence of a statistically significant relationship between adequately trained teachers on retention of pupils with disabilities. Finally, regression analysis was used to show the influence of the independent variable on the dependent variable (Schober, Boer, & Schwarte, 2018).

## 4.0 RESULTS

The results were coded into the excel spreadsheet and later exported to the SPSS data editor for descriptive and inferential analyses. The results are presented in Table 3.

## 4.1 Provision of Adequately Trained Teachers

Percentages were used in the investigation of the variable. The study findings are presented in Table 3 below.

**Table 3: Percentages of Provision of Adequately 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 teaching methods for PWDs	46.0	26.1	10.3	10.3	7.3
I used child centered 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 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 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 the 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 headteachers were

not trained on matters related to disability and at the same time they did not have adequately trained teachers in the same field. A few headteachers had teachers trained in areas of disability that were not existing in their schools. This meant that the staffing of teachers should be done to suit the type of disabilities that are enrolled in 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 to handle the content of PWDs. In addition to teachers' skills in guiding and counselling for pupils with disabilities, 75.9% of the respondents disagreed that they were able. It was noted that respondents did not use 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 the general learning and retention of learners due to a perception that they are not able and therefore neglected. These findings are in harmony with that of Mwangi (2013) who carried out 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.

According to the analysis, it was found that 17.6% of the respondents agreed that they used teaching methods that is customized for PWDs while those who showed a disagreement scoring 72.1%. However, 63.6% disagreed that they used child-centred 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 the 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 a good relationship with all the pupils. It can be argued that teachers lack a good relationship with learners may lead to frustration to PWDs. This could be a major impediment to the 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.

## **4.2 Correlation Test on Adequately Trained Teachers and Retention of Pupils with Disabilities.**

Pearson correlation test was used to investigate whether there existed a significant influence of adequately trained teachers and retention of pupils with disabilities. The analysis was tested at 0.05 Alpha and is shown in Table 4 below.

**Table 4: Influence of Adequately Trained Teachers on Retention of Pupils with Disabilities**

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

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

The finding in Table 4 showed that there was strong evidence of a positive and statistically significant influence of adequately trained teachers on retention of pupils with disabilities ( $r=0.866^{**}$ ;  $p<0.05$ ). This means that when adequately 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. Mwimba (2014) observes that teachers' academic and professional qualification influenced the 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.

### 4.3 Retention of Pupils with Disabilities

The dependent variable of the study which was the Retention of Pupils with Disabilities was analysed and the findings were presented in Table 5 below.

**Table 5: 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
<b>Total</b>	<b>261</b>	<b>100.0</b>

From the analysis, it was found that 37.9% reported that the retention of pupils with a disability was very low. In addition, up to 50.2% of the respondents indicated that the retention was as well low. This finding acknowledges that of Bakhshi et al. (2017) who observed that vulnerable children, particularly children with disabilities, were less likely to start school. The study 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 a clear indication that the lack of appropriate resources for learners with disabilities in mainstreamed primary schools hinder the retention of learners with disabilities.

#### 4.4 Mean Description of Retention of Pupils with Disabilities

The findings in Table 6 display the Mean description of retention of pupils with disabilities (PWDs).

**Table 6: 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 from a total of 200 in the sampled mainstreamed primary schools in Bomet County, Kenya.

#### 4.5 Influence of Independent Variables

The net influence of independent variables was presented by the Regression Coefficients. The results are presented in Table 7.

**Table 7: Regression Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		T	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
(Constant)	-.179	.055	-3.266	.001		
Adequately trained teachers	.250	.063	3.975	.000	.174	5.747

*a. Dependent Variable: Retention of pupils with disabilities*

Regarding the unstandardized coefficients, adequately trained teachers were seen to influence significantly the retention of pupils with disabilities by 25.3% ( $\beta = 0.253$ ). This implies that adequate provision of trained teachers in the area of mainstreamed learning could improve the retention of pupils with disabilities.

### 5.0 CONCLUSION AND RECOMMENDATION

#### 5.1 Conclusion

Teachers in Bomet County were not all trained on how to use computers as well as use of therapeutic toys for pupils with disabilities. This could affect retention of pupils with disabilities (PWDs) in mainstreamed primary schools. This implies that when teachers lack training on matters regarding special needs for learners with disabilities, it discourages the students. Provision of adequately trained teachers significantly influences the retention of pupils with disabilities in mainstreamed Primary Schools.

## 5.2 Recommendation

Teachers are a part of the vital resources in mainstreamed primary schools and should therefore be well trained on matters relating to persons with disabilities (PWDs) including use of in-service courses. This will help abreast their skills related to teaching methods and overall instructional objective of teaching that seeks to promote pupils with disabilities. In mainstream learning institutions, education managers and providers should ensure that physical, educational and recreational resources are fully designed for learners with disabilities. This will aid in improving the retention of pupils with disabilities in mainstreamed schools. All the severely disabled persons, who cannot make to join others in the inclusive or integrated learning centres, need to be taught from their homes where possible be equipped with all the necessary learning resources fully tailored to their disabilities.

## REFERENCES

- Adegbesan, S. O. (2014). Establishing quality assurance in Nigeria education system. Implication for education managers. *An Academic Journal on Educational Research and Review*, 6(2), 147-151.
- Ajayi, A., Haastrup, T. E., & Arogundade, B. B. (2015). Parents' involvement in school administration as a correlate of effectiveness of secondary schools in Nigeria. Lagos: Bolabay publishers. *A journal of educational administration and policy studies*, 1(3), 041-046
- Alhassan, A. R., & Abosi, O. C. (2014). Teacher effectiveness in adapting instruction to the needs of pupils with learning difficulties in regular primary schools in Ghana. *SAGE Open*, 4(1), 1–16.
- Asenath, O. K. (2015). School based factors influencing performance of children with disabilities in public primary schools in kajiado north district, kajiado county, kenya. University of Nairobi: Unpublished Thesis.
- Avmaridis, E., & Norwich, B. (2015). Teacher attitudes towards integration: A review of literature. *European Journal of special education*, 1(2), 129-147. Retrieved from doi: 10.1080/08856250210129056
- Bakhshi, B., Babulal, G. M., & Trani, J. F. (2017). Education of children with disabilities in New Delhi: When does exclusion occur? *PLOS ONE*, 12(9), e0183885. <https://doi.org/10.1371/journal.pone.0183885>.
- Baxter, L. A., & Babbie, E. (2013). *The basics of communication research*. Boston: Wadsworth/Engage Learning.
- Bertalanffy, L. V. (1968). *General system theory: foundations, development, applications*. New York: George Braziller.

- Bones, R., & Lambe, J. (2015). Students perception about inclusive Classroom Teaching. University of Ulster: Routledge.
- Brownell, D., & Pajars, K. (2014). Inclusion at the Crossroads, Special Education-Concepts and Values. London: David Fulton.
- Bunning, K., Gona, J. K., Newton, C. R., & Hartley, S. (2017). The perception of disability by community groups: Stories of local understanding, beliefs and challenges in a rural part of Kenya. Plos one, 12(8), e0182214.
- County Government of Bomet. (2014). Culture and social services research report on people with disabilities. Nairobi: Government printer.
- Crossman, A. (2017). Understanding purposive sampling. Retrieved July, 31, 2019 from thoughtco.com
- Dagnew, A. (2013). Factors affecting the implementation of inclusive education in primary schools of Bahir Dar Town administration. Education Research Journal, 3(3), 59-67.
- De Jager, T. (2013). Guidelines to assist the implementation of differentiated learning activities in South African secondary schools. International Journal of Inclusive Education, 17(1), 80-94.
- di Marco, A. (2016). Disadvantaged Girls in Kenyan Schools. London: Education Development Trust.
- Dierkx, R. J., & Duru, G. L. (2012). Micro-action urban child-friendly planning and design guidelines for planners in Iran. Education for all. Is commitment enough? Journal of education international report. Brussels: Education international press.
- Elzein, H. L. (2013). Attitude towards inclusion of students with special needs in regular schools. ca case study from parents perspective. Educaional research and review, 164-172.
- Huang, Y. L., & Waxman, H. C. (2016). Motivation and learning environment differences in inner-city middles school students. A Journal of education Research, 90(2), 93-102.
- Human Rights Watch. (2015). Complicit in exclusion. South Africa's Failure to guarantee an inclusive education for children with disabilities. New York: Human Rights Watch.
- Idol, L. (2006). Toward inclusion of special education students in general education: A program evaluation of eight schools. Remedial and Special education, 27(2), 77-94.
- Jessop, N. (2014). A model for best practice. Calcutta: Education sector group.
- Jha, M. M. (2012). Inclusive educaation for all. Oxford: Heinemann Publishers.



- Kahongeh, J. (2018, march 23). Schools ill-equipped to support children with special needs: Report. Retrieved June 11, 2018, from Daily Nation: <https://www.nation.co.ke/news/education/schools-ill-equipped-to-support-children-with-special-need/2643604-4354184-128j8xz/index.html>
- Kamene, A. (2009). School based factors influencing the implementation of inclusive education in regular primary schools in Yatta District. University of Nairobi: Unpublished Thesis.
- Karande, R. R. (2014). School based factors influencing participation of physically challenged learners in public primary schools in kiambu municipality, kenya. University of Nairobi: A Research Project.
- Kathuri, J. N., & Pals, D. A. (1993). Introduction to educational research. Njoro: Egerton University Press.
- Knowles, E., & Smith, M. (2014). Understanding diversity through novels and picture books. Santa Barbera, CA: Libraries Unlimited.
- Kogei, J. K. (2013). Factors influencing enrolment of learners with disabilities in an inclusive education in primary schools in nandi south district kenya. University of Nairobi: Unpublished Thesis.
- Lake, N. (2016). Teachers' teaching strategies in a sample of south african inclusive classrooms. University of the Witwatersrand: A research Report .
- Lambe, J., & Bones, R. (2006). Student teachers' perceptions about inclusive classroom teaching in Northern Ireland prior to teaching practice experience. *European Journal of Special Needs Education*, 21(2), 167-186.
- Lipsky, D. K., & Gartner, A. (2016). Inclusive education: A requirement of a democratic society. London: Kogan Page.
- Lone, P. (2016). Keeping special needs children in school. The progress of nations. New York: United Press.
- Lopez, C., & Corcoran, T. (2014). Relationships with special needs students: exploring primary teachers' descriptions. *International Journal of Inclusive Education*, 18(12), 1304-1320.
- MacGuine, D. & Molbjerg, K. (2011). Human resource development. Theory and practice. London: Sage publications.
- Mantey, E. E. (2014). Accessibility to inclusive education for children with disabilities: a case of two selected areas in Ghana. PhD dissertation: University of Siegen Press.

- Miller, R. (2013). *The Renewal of meaning in education: Responses to the cultural and ecological crisis of our times*. Brandon: Holistic Education Press.
- Muhammad, S. (2013). *An inclusive schooling model for prevention of drop out in primary schools in Pakistan*, Institute of education and research. Lahore: University of Punjab.
- Moyi, P. (2017). *School enrolment and attendance for children with disabilities in Kenya: An examination of household survey data*. *fire: Forum for International Research in Education*, 4(2), 1.
- Muthoni, N. I., Otube, N., & Ondigi, S. R. (2016). *An analysis of factors influencing low enrolment and retention of girls with disabilities in integrated primary schools in Embu County, Kenya*. *Journal of the American Academy of Special Education Professionals*, 115, 136.
- Mwaimba, A. W. (2014). *Teacher factors influencing implementation of inclusive education in public primary schools in nyangala division, taita taveta county, Kenya*. University of Nairobi: Published Project Report.
- Mwangi, L. (2013). *Special needs education (sne) in Kenyan public primary schools: Exploring government policy and teachers' understandings*. Brunel University, London: Unpublished Thesis.
- National Council for Population and Development. (2017). *2015 Kenya national adolescents and youth survey (nays)*. Nairobi, Kenya: NCPD.
- National Gender and Equality Commission. (2016). *Access to basic education by children with disability in Kenya*. Nairobi: National Gender and Equality Commission.
- Ngiria, J. R. (2013). *Factors affecting inclusion of learners with disabilities among urban refugees in public primary schools in Ruiru district, Kiambu county, Kenya*. University of Nairobi: A Research Project .
- Njeru, I. M (2014). *An analysis of factors influencing low enrolment and retention of girls with disabilities in integrated Primary Schools in Embu County, Kenya*. Nairobi: Kenyatta University Press.
- OFSTED. (2010). *The special educational needs and disability review*. Manchester: Crown.
- Ogero, A. K. (2015). *School based factors influencing performance of children with disabilities in public primary schools in Kajiado north district, Kajiado county, Kenya*. University of Nairobi: Unpublished Thesis.
- Ogula, P. A. (2005). *Research methods*. Nairobi : Catholic University of Eastern Africa.

- Owuor, L. O. (2014). Determinants of inclusion of learners with special needs in public primary schools in Kisumu municipality, Kisumu county. University of Nairobi: Unpublished Research Project .
- Republic of Kenya. (2012). A policy framework for education. Nairobi: Government Printers.
- Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients: appropriate use and interpretation. *Anesthesia & Analgesia*, 126(5), 1763-1768.
- Taderera, C., & Hall, H. (2017). Challenges faced by parents of children with learning disabilities in Opuwo, Namibia. *African Journal of Disability*, 6, 1-10. Retrieved from <https://doi.org/10.4102/ajod.v6i0.283>.
- Thomas, E. (2015). *Advances in learning and behavioural disabilities*. Bradford, GBR: Emerald Group Publishers.
- Tomlinson, T. (2012). *A sociology of special education*. London: Routledge.
- UNESCO. (2004). *Salamanca statement and framework for action on Special Needs Education*. Madrid: UNESCO.
- UNESCO. (2009). *Policy guidelines on inclusion in education*. Paris: UNESCO.
- UNESCO. (2010). *Reaching the marginalized. EFA Global Monitoring Report 2010*. Paris:
- Walsh, T. (2012). Children with special needs and the right to education. *Australian Journal of Human Rights*, 18(1), 27-56.
- Westwood, P. (2014). *Commonsense methods for children with special educational needs (5th ed.)*. London: Routledge.
- Wong, D. (2012). *Struggling in the Mainstream Learning: The case of Hong Kong*. *International Disability Development Education*, 49(1), 79-94.
- World Health Organization. (2011). *World report on disability*. Malta: The World Bank.
- Yamane, T. (1967). *Elementary sampling theory*. NJ: Prentice-Hall.
- Zamboni, J. (2017, April 24). What is the meaning of sample size? retrieved january 30, 2018, from sciencing: <https://sciencing.com/meaning-sample-size-5988804.html>.