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### The Influence of Recreational Resources on Retention of Pupils with Disabilities in Mainstreamed Primary Schools in Bomet County, Kenya.

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### **Abstract**

The objective of the study was to determine the influence of recreational resources on retention of pupils with disabilities in mainstreamed primary schools in Bomet County, Kenya. This study is embedded in the Systems Theory (Bertalanffy, 1968). It adopted a correlational research design. The target population was 840 teachers. Yamane table (1967) was used to get a sample size of 278 teachers. The multi-stage sampling procedure was applied. Data was collected, coded and analysed. The findings of the study revealed that physical resources and instructional resources significantly influence retention of pupils with disabilities ( $\beta$ =0.192 and  $\beta$ =0.421, respectively). Similarly, provision of adequate trained teachers and recreational resources were seen to influence the retention of pupils significantly with disabilities in mainstreamed Primary Schools ( $\beta$ =0.253 and  $\beta$ =0.250, respectively). The study concludes that recreational resources significantly influence retention of pupils with disabilities in mainstreamed Primary Schools. Many schools did not provide recreational resources for PWDs. Play-toys for PWDs were not available. Besides, assistive technology, for example, amplified talking Braille for pupils with disabilities (PWDs) were also not available. The lack of recreational resource for learners with disabilities could affect retention of their in mainstreamed schools. The study recommends provision of recreational resources such as in-door and outdoor equipment, play kits and field markers.

**Key Terms:** Recreational resources, Mainstreamed primary schools, Retention of pupils.

### **Article Citation (APA)**

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### 1.0 INTRODUCTION

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 per cent living in developing countries. Furthermore, Elzein (2013) reinforces the WHO's statistical information that 10 per cent 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 desire 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. Friendly learning environments encourage children with disabilities to participate in education mainstreamed learning institutions. The report by Walsh and Thomas (2015) reiterates that when education managers fail to provide appropriate 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 the 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.

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 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. 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 disabled children 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). According to the County Government of Bomet (2014), children with disabilities were not fully retained in public primary schools. The National Council further observed that Population and Development (2017) that out of every ten pupils with disabilities enrolled in integrated schools in Bomet County, only three 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 per cent of PWDs were retained in regular mainstreamed schools. In comparison, 62 per cent 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



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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.

### 2.0 LITERATURE REVIEW

### **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), nine influences affect social integration of children with disabilities and greatly influence on their enrolment and retention in regular learning centres. These include a 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. 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 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 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 (2015); Huang and Waxman (2016) and Thomas (2015) did not analyse the influence of resources on retention of disable pupils 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 per cent 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 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 basic public schools.



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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 promote 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, being disable increases the risk of children being school dropout by two and a half times the normal children. Disable children are less likely to start schooling, and if they do, they are unlikely to proceed 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 Organization (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), obstacles, for instance, lack of a 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 the 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 per cent entered standard eight. Therefore, this study intensively investigated through factual finding to justify the influence of resources on retention of pupils with



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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 many 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 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 disable children are enrolled in schools, they encounter rejection hence not being retained in schools.

Similarly, 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. Bunning et al. (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 pupils with disabilities (PWDs) in mainstreamed schools. However, these studies did not expound the fact that provided resources not designed for Pupils with disabilities may affect retention. This is a motivation for the researcher to conduct this study.

### **Recreational Resources and Retention of Pupils with Disabilities**

All children desire and require good quality playtime 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 instead of developing a separate section for children with a special need. Designing a piece of inclusive playground equipment should be enhanced this will allow children who are nondisabled with physical conditions and children with different sensory or developmental conditions to play together on the same playgrounds. They can only be able to use this equipment in diverse ways (Bros, 2016). Approximately, 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 is 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 a reduction of tension, anxiety and individual decisions to drop out of school. Confidence is a big problem for all children.

It is particularly important for pupils with Special Educational Needs to be able to play is on the same playground 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)



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did not examine the influence of provision of 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 the playground to ensure special needs children can use all equipment 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, and it is increasingly necessary 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 that, 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) emphasizes that lack of accessibility-oriented curriculum adjustments leads to the exclusion of content to pupils with disabilities. Although the learners seem to socialize with others, their learning process is being partially neglected. The findings of this study proved that these shortcomings affect the retention of pupils with disabilities (PWDs). Confidence is a big concern for all children. It is particularly important for pupils with Special Educational Needs to be able to play is on the same playground 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 access 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 emphasizing 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



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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 unravel. Assistive technology is one of the key elements for advancing the 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 the 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 organization 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 The Kenya National Disability Authority report of 2014 explains that obstacles contributing to low levels of participation in sports and physical activity by the disabled people in Ireland encompass many factors. Some of these factors are poor physical education provided in schools, negative school experiences, and 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, inadequate 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. The Kenya National Disability Authority (2014) further reported 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 the participation of pupils with disabilities (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 of negative influence in games and sporting. The report by the 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 instead of having a separate section for disable children, designing inclusive



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playground equipment should done to ensure 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 the 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 sports and physical activity by the disable include lack of access to facilities and programmes, ad hoc structures and approaches as well as transport difficulties. This could be a reason for the lack of retention of Pupils with Disabilities in the visited common mainstreamed schools.

The Kenyan policy standing and status revealed that there existed a limited relevant Mainstreamed Policy or legislation governing and supporting Countries sports and development. Recently in 2013, the Kenyan Government passed the Sports Act 2013, which instigate sports development from the grassroots of the County to National Government (Wekesa, et al., 2017). However, the study by Wekesa et al. (2017) never critically study the influence of recreational resources on retention of disable pupils in mainstreamed primary schools which was the main focus of the present study.

### 3.0 RESULTS

### Factor Loading for Construct of Recreational Resources Table1: Factor Loading for Construct of Recreational Resources

Item	Factor Loading
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 Pupils with Disability	.551
There are enough special games equipment, e.g. sandpits, musical instruments and swings	.854
There are enough play-toys for Pupils with Disabilities	.768
There are enough field equipment, for instance, field makers, ropes, first aid kits and many more for pupils with disabilities	.687
The playground is accessible to all pupils	.590
There is safe access to outdoor plays for Pupils with disabilities (PWDs)	.694



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There is safe access to indoor plays for Pupils with disabilities (PWDs)	.672
We have assistive technology, for example, amplified talking braille for Pupils with disabilities	.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 1. Therefore, these values indicate that they are highly interrelated with each other. Therefore, none of the variables were eliminated, hence, used for succeeding data analysis.

### **Descriptive and Inferential Analysis for Recreational Resources**

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

### **Percentages of Recreational Resources**

Table 1: Percentages of Recreational Resources

Statement	SD	D	N	Α	SA
	(%)	(%)	(%)	(%)	(%)
We have 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 playground 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,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. sandpits, 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=StronglyAgree; and%=Percentages.

All children desire and require good quality playtime to develop psychomotor skills. It was noted that 76.3 per cent of respondents disagreed that 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



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with challenges of accessing the 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 jeopardise the safety of PWDs who wish to engage in sporting activities as reported by 91.6 per cent who maintained that the playground was not safe to accommodate games for PWDs. The obstacles 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 outdoor plays, helps children to expend their energy and expose their talents. The findings revealed that 80.1 per cent 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 a 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 accessibility of the playgrounds for inclusive sports 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. Not only that but also promote their lives to a meaningful to a state of dignity and promise.

Pupils with disabilities should be provided with assistive technologies to assist them during play. However, 87.4 per cent 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 special games equipment, e.g. sandpits, musical instruments and swings as well as that there were enough and play-toys for PWDs (62.9%). When PWDs are not provided with games equipment, they may get discouraged, and others may decide to be a school drop out as a result of frustrations. This could affect their retention. This view corresponds to that of Goldowitz et al. (2018) who reports that lack of 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 organizations. There are many excellent, accessible sites, but not enough to meet the need, and there is little or no coordination of efforts or offerings.

### **Mean Description of Recreational Resources**

Mean statistics were computed for the variable recreational resources. The analysed data is presented in Table 3.

Table 3: Mean of Recreational Resources

Statement	N	Min	Max	Mean	SD
Ramps and handrails are installed in the playground for PWDs	261	1.00	5.00	2.00	1.31



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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. sandpits, musical instruments and swings	261	1.00	5.00	1.74	1.26
There are enough 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 playground 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 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 was enough special games equipment, for instance, sandpits, musical instruments and swings (mean=1.74). It was further realized from the findings of this study that there was inadequate field equipment, for instance, field makers, ropes, first aid kits for PWDs (mean=1.91). This means that accessing playground is an 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. Instead of having a separate section for disable children, and inclusive field for playing and equipment should be designed to enable disabled children with physical conditions and children with different sensory conditions or developmental to play together on the same equipment, possibly by using equipment in different ways. This could improve retention of PWDs if catered for.

Safety and accessibility are fundamental to PWDs. It was learnt that the proceedings of Rocha et al. (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. Because 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 et al. (2018) and Kakui (2005) research studies agree with the findings of the current study in that the recreational equipment for physical education and sport, although inadequate in quantity, enhance the 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 et al. (2018) and Kakui (2005) further explained that barriers that contribute to low level of



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PWDs' participation in co-curricular activities were poor provision of equipment, negative school experiences, low expectations 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 the 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 among 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 the lack of retention of PWDs.

Availability of games equipment is important in motor development of Pupils with disabilities. However, the findings revealed that respondents disagreed that there are enough play-toys for PWDs (mean=2.59) as well as they lack assistive technology, for example, amplified talking braille for PWDs (mean=1.57). Largely, the provision of recreational resource overall index was 1.80. This means that recreational resource for PWDs was 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 affect retention of PWDs.

### Comparison of Recreational Resources by Gender

An independent sample t-test was tested to establish whether there was a significant difference in the provision of recreational resources by gender at 0.05 Alpha Level. The results are displayed in Table 4.

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

Table 4: Difference in view of Recreational Resources by Gender

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 an 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 the 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



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

### The 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 the perception of recreational resources by work experience. The findings are presented in Table 5.

	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 a 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.

### 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 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 6.

Table 6: Influence of Recreational Resources and Retention of Pupils with Disabilities

		Retention of pupils with disabilities	Recreational Resources			
Retention of pupils with disabilities	Pearson Correlation		0.846**			
	Sig. (2-tailed)		.000			
With disabilities	N		261			
**. Correlation is significant at the 0.01 level (2-tailed).						



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The findings of this study showed that there was strong evidence of a positive and statistically significant influence of recreational resources on retention of pupils with disabilities in mainstreamed Primary Schools ( $r=0.846^{**}$ ; p<0.05). This means that when 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. 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.

### 4.0 CONCLUSION AND RECOMMENDATIONS

**Conclusion:** Well provided for recreational resources significantly influence the retention of pupils with disabilities in mainstreamed Primary Schools. Many schools did not provide recreational resources for PWDs. Play-toys for PWDs were not available. Besides, assistive technology, for example, amplified talking Braille for pupils with disabilities (PWDs) were also not available. The lack of recreational resource for learners with disabilities could affect retention of their in mainstreamed schools.

**Recommendation:** Retention of students with disabilities in mainstreamed primary schools is enhanced through recreational resources, in-door and outdoor equipment, for instance, play kits, field markers.

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