

**ASSESSMENT OF CHALLENGES FACING INCLUSION IN PHYSICAL EDUCATION
LESSONS FOR LEARNERS WITH PHYSICAL DISABILITIES IN NAIROBI CITY
COUNTY PRIMARY SCHOOLS**

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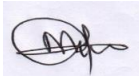
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Declaration

This thesis is my original work and has not been presented at any other institution of higher learning for the award of a degree or any other qualification.

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List of Abbreviations

APE – Adapted Physical Education

CRPD – Convention on Rights for Persons with Disabilities

CBC – Competency Based Curriculum

GEA – Global Education for All

LWDs – Learners with disability

MOE – Ministry of Education

OECD – Organization for Economic Co-operation and Development

PE – Physical Education

PWDS – People with Disabilities

SNE – Special Needs Education

UN – United Nations

UNESCO – United Nations Education, Scientific and Cultural Organization

UPE – Universal Primary Education

Abstract

This thesis sought to establish the extent of involvement of learners with physical disabilities in physical education lessons in primary schools in Nairobi City County. The Basic Education Act of 2014 provides that all children, including learners with disability be included in the general education system and be entitled to access to quality and inclusive education, and be accorded sufficient support that will facilitate their effective education. The literature reviewed discusses the challenges that the learners and the schools go through in their efforts to match the quality of Physical Education offered to other learners. Some challenges include inadequate and undertrained teachers, inappropriate equipment, insufficient funds and poor enforcement of policies. This study is based on the Social Model of Disability (SDM). According to SDM, disability is not as a result of biological impairment, but rather from the existing physical and social barriers that limit a person's full participation in the society. Therefore, the biggest limitation for people with disability is not their biological state, but the barriers imposed by the society. The study employed descriptive survey method and targeted 280 class seven pupils, 82 teachers and 36 heads of schools. The data was collected from schools within Langata, Dagoretti and Westlands Sub-Counties. Data was collected using questionnaires, interviews, inventory and document analysis. Data was analyzed using Thematic Network Analysis employing the Nvivo computer software. The study findings indicate a shortage of equipment that are dedicated to the learning of physical education lessons for learners with disability. Equipment such as balls were found to be insufficient while majority of facilities such as playing fields were found to be rocky and unable to facilitate the movement for learners using wheelchairs. The study found that 100 percent of teachers involved in teaching learners with physical disability had received formal training on special needs education (SNE) from diploma to masters' level. However, none of the teachers had received training on adapted physical education. A considerable number of learners indicated that they participate in sports and recreation activities, which boosts their interest and ability to learn skills during physical education lessons. Apart from the traditional games such as soccer and volleyball where many learners with disability struggle to learn, emerging activities such as skipping rope, tire ridding, swimming and roller skating are emerging sports which are exciting to learners with disability. Majority of learners were unable to effectively participate in physical education lessons for lack of basic resources such as uniforms and shoes. This study recommends that teachers involved in teaching learners with physical disability should acquire some training on adapted physical education while schools should set aside funds to purchase equipment that are appropriate for use by learners with physical disability.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The right to education is acknowledged as a global underlying human right, which is indispensable in the implementation of other human rights (UNESCO 2020). Several national, regional and international rights and policies have recognized education as an indisputable human right. Inclusion in education can be traced back to Jomtien Declaration of 1990, which stated that education should be made accessible to all. This declaration also asserted that persons with disability should be given attention and appropriate strategies be employed to ensure they enjoy equal rights and access to education for every category of learners including those with disability. In 1994, the Salamanca statement called for integrated approach in education. This statement required that regular public schools admit all learners regardless of their social, physical, emotional, linguistic and intellectual conditions. This declaration also endorsed that learners with disability should enrol in their neighbourhood schools, just as they would have enrolled if they did not have any disability. The Incheon Declaration, endorsed the previous efforts and lobbied the nations to commit towards realizing the 2030 Education for All (EFA) goals, which would ensure equitable and inclusive quality education (UNESCO 2020).

The nations efforts towards realization of EFA goals were all captured in the year 2000 under the Millennium Development Goals (MDGs). The second goal stated that the member nations should attain the Universal Primary Education (UPE) by the year 2015. Following this agreement, various nations committed to ensure their populace who are in difficult conditions and those belonging to minority groups got a chance to at least complete the primary education

(UN, 2000). However, UPE was not realized in the year 2015 as projected (NGEC, 2016). These aspirations were translated to Sustainable Development Goals (SDGs). The fourth goal requires that member nations commit to ensure inclusivity in education in order to promote equitable and inclusive education that will produce life-long opportunities for all (NGEC, 2016). This paper seeks to establish the available policies, which have been narrowed down to a school setting to govern and ensure the provision of quality education to learners with disability.

There are estimated 140 million out-of-school children in the world, and eighty percent of them are children living with disabilities (ACPF, 2011). Many countries of the world have ratified the convention on the rights for persons with disabilities, which is a landmark in the in the fight for discrimination in education for persons with disabilities. There are several areas of discrimination that still faces people with disabilities, including health, social development plans, policy documents and poverty reduction programmes. However, education in particular is an area of discrimination that stands out because it contributes to social, cultural and economic well-being for persons with disability.

Most African countries have ratified various treaties that seek to uphold inclusive education. However, few policy and practical interventions have been reached in the integration of these treaties into national policies, laws, educational plans and programmes. Only eight countries provide frequent update on the implementation of their commitments towards inclusion in education for persons with disability, whereas eight countries provide no updates. Other countries in Africa have declined to commit to the international conventions for persons with disability (Global Disability Summit, 2021).

The government of Kenya has put several measures in place to address the basic educational needs of all learners, including learners with disability. Article 54 of the Kenyan Constitution of 2010 explicitly states that every child is guaranteed of free and compulsory basic education (Republic of Kenya, 2010). This article also takes care of learners with disability by directing that the facilities in institutions be integrated in order to cater for explicit needs of the all persons in the society.

From the year 1964, the government has made efforts to address the issue of inclusion in education for learners with special needs. The first post-independence education commission, which was established in 1964 released their report that recommended the increase of special schools for learners with disability (Obiero & Mwangi, 2019). The Committee of Care and Rehabilitation of the disabled, referred to as Ngala Report, was formed which recommended among other things: the inclusive education for learners with physical disabilities, increased funds for special schools, provision of transport for learners with physical disability, appointment of inspectors for special schools, establishment of rehabilitation and vocational centres; and affirmative action on employment for people with disabilities (Njoka & Syallo, 2013).

Following the Ngala Report, the Sessional Paper No. 5 of 1968 proposed a survey on disability; however, the survey was not conducted. The National Education Commission on Educational Objectives and Policies report, known as Gachathi Report of 1976 recommended the establishment of integrated schools where learners with disabilities would mix and learn together with those without disabilities instead of segregating them into special schools (Njoka & Syallo, 2013). The Gachathi report also recommended the creation of a framework to create awareness

and campaigns aimed at reducing the marginalization and discrimination of learners with disabilities in the schools. Unfortunately, the government did not implement all the recommendation of the report.

In an attempt to avail the services for learners with disability near the people, the Kenyan government established Educational Assessment and Resource Centres (EARCs) strategically around the country (Republic of Kenya, 2009). However, due to insufficient funding and lack of sufficient special needs education teachers, the EARCs could not provide sufficient services as projected (Republic of Kenya, 2009). That challenge led to the birth of the Kenya Institute of Special Education (KISE) in 1968 with the aim of training SNE teachers, serve as a resource centre and conduct research on special education needs (Republic of Kenya, 2009). The Commission of Inquiry into the Education System of Kenya, known as Koech Report was established in 1999. The Koech report of 1999 observed that the then education system in Kenya did not provide equal opportunities for all learners and recommended a re-evaluation of Education Act. The commission found that despite the recommendation of Gachathi report of 1976, there was still a lack of legal framework on special needs education. It also revealed that the recommendations of Ngala report of 1964 to undertake a disability survey had not been undertaken (Njoka & Syallo, 2013). In addition, there were very few recommendations of the Koech report that had been implemented.

The Task Force on Special Needs Education, also known as Kochung Report released its report in 2003. Kochung Report noted a lack of legal framework to guide the provision of special needs education, an observation made by the previous reports. There was no available data on learners with disability in schools and there was insufficiency of SNE teachers (Mwoma & Pillay, 2016).

There report also noted that there was lack of facilities that were appropriate for use by learners with disability. The report concluded that following the failure of the government to implement educational recommendations that had been made earlier, learners with disabilities had made little progress towards the attainment of universal educational goals.

Many primary schools that admitted children with physical disabilities did not have proper basic facilities and equipment for the teaching of Physical Education (PE) and sports (Njau, Njoroge & Mwisukha, 2003). The facilities included the availability of playing fields, courts and tracks. The equipment included balls, rackets, nets, and uniforms, and their appropriate adaptation to meet the unique needs of the learners. Where facilities were available, they were either insufficient in terms of quantity, or they did not meet the recommended specifications to facilitate the effective teaching of physical education for the children with physical disabilities (Njau et al., 2003). Njau et al. (2003) also noted that the condition of equipment and facilities in many schools for learners with disability were described to be “poor”, while others described them as "very poor." Apart from the playing facilities and equipment, there was a big shortage of instructional materials such as books for Adapted Physical Education (APE). The lack of equipment and facilities in schools was one of the major impediments to the achievement of Adapted Physical Education goals in Kenyan primary schools (Njau et al., 2003).

In fulfilment of the election pledges by the new government administration that took over in 2002, Free Primary Education (FPE) was introduced in Kenya in 2003. It was an important initiative towards the accomplishment of Universal Primary Education (UPE). Free Primary Education sought to eliminate all levies that prevented children, especially those from economically poor backgrounds, from accessing education (International Labour Organization,

2009). The Sessional Paper No.1 of 2005 however noted that despite the FPE policy, the children with disability who had access to education were less than 10% (Mwoma and Pillay, 2016). The Paper noted that only 0.2% of the total government funding in education was spent on special needs education.

Consequently, the government pledged to establish a national policy that aimed at defining all areas covered under special needs education in order to commit more funds to institutions that offered services for learners with disability. This provision was extended to special schools as well as integrated schools that were admitting learners with disabilities. Such schools were to receive additional funding to enable them to meet the special needs of learners with disabilities (International Labour Organization, 2009). The International Labour Organization notes that despite these legislations, not much has been achieved. The funds sent to primary schools, especially the mainstream schools, have not been sufficient to cater for basic learning needs. In this policy, there are no deliberate directions given towards physical education programmes in schools regarding employment of personnel and procurement of facilities and equipment for learners with disabilities (Matheri & Frantz, 2009).

The Kenya Persons with Disability Act of 2003 established the National Council for Persons with Disability (PWD), whose mandate was to ensure that PWDs have equal rights and equal access to education, participation and full involvement in sporting and recreational activities for maximum satisfaction. Article 30 (b) of the Convention of the Rights of Persons with Disabilities (CRPD) directs the concerned parties to ensure people with disabilities participate in organized disability-specific sports and recreational activities (Kenya National Commission for Human Rights (KNHCR), 2014). The Convention of the Rights of Persons with Disabilities encourages

the promotion and participation, to the fullest extent possible, of the persons living with disability in mainstream sports at all levels. It also requires that children living with disabilities, just like other children, be given equal access to participation in play, leisure, sporting and recreation activities; including those activities in the school system (Disability Rights Education and Defense Fund (DRED), 2013).

Between 2005 and 2010, through the initiative of the Kenya Education Sector Support Programme (KESSP), it was established that learners with disability had been ignored by the government. KESSP identified various gaps including: lack of dependable data on learners with special learning needs, diminishing enrolment due to societal barriers, high cost of learning materials; and lack of sufficient guidelines on inclusivity. Just like the Kochung Report, KESSP concluded that the government inability to implement the earlier educational reports was the major reason the education policies and programmes targeting learners with disability were unsuccessful. The survey on people with disability had not yet been conducted, while KISE lacked sufficient data on disability to enable it function effectively (Mwoma & Pillay, 2015).

In 2007, the Kenya National Survey for persons With Disability (KNSPWD) was conducted for the first time ever in the history of Kenya. This survey provided an estimate of persons with disability which also captured their demographics, distribution, socio-economic characteristics, as well as the various types of disabilities they faced and the related problems and coping challenges. The survey also explored the available rehabilitation programmes and corrective services (Republic of Kenya, 2008).

In May 2008, Kenya became a signatory to the United Nations Convention on Rights of Persons with Disabilities, which was incorporated in the Kenyan Constitution of 2010 in Article 2(6)

(KNCHR, 2014). The CRPD was the first internationally binding legislation, which was opened up in March 2007 for countries to become signatories. The main focus of this legislation was to eliminate discrimination and negative attitude towards PWDs. The level of implementation of these policies is key to this study because these policies were critical in ensuring that learners living with disability access education just like their counter parts living without disability.

In 2010, the government of Kenya launched the new constitution, which guaranteed all children free and compulsory education (Republic of Kenya, 2010). The children with disabilities who were previously marginalized were accorded equal rights to education similar to those without disability. The new constitution obligated the government to enact policies and framework that ensures children with disability have equal access to education and that they get the required infrastructural support to succeed in education just like other learners without disability. The government was required to pass affirmative action in favour of learners with disability. The National Special Needs Education policy framework was launched by the government. This framework enumerated the strategies and principles for the creation of equal access to education and training that was of quality relevance to learners with disability. This policy framework was intended to address several challenges and attain success in provision of facilities, promotion of inclusion, early identification, assessment and early intervention and mitigation, public sensitization as well as research and sharing of information (Kochung, 2011).

One of the major problems that hinder effective services to students with physical disabilities is the inadequacy and ineffectiveness of the personnel to teach learners with disability (Kiarie, 2014). In Kenya, there are very few teachers who are trained to teach learners with physical disability (Kiarie, 2014). There were few institutions that offered training for special needs

education teachers. Kenya Institute of Special Education only trained teachers through in-service programmes to teach learners with disability. However, the number of teachers they trained was not sufficient to meet the personnel demand for teaching learners with physical disability (Kiarie, 2014).

The Kenya Institute of Curriculum Development (KICD) is the body tasked with the development and distribution of all curricular materials for all levels of education in Kenya, except for the universities. Alongside the normal curriculum, KICD is also responsible for development and distribution of curriculum for learners with special needs. The previous education system, the 8.4.4, syllabus put all learners in the same bracket, thus failing to address the needs for special needs learners, which implies that they did not get similar opportunity as the learners without disability (KICD 2019). Despite the ineffectiveness of the existing curriculum for learners with disability, some schools lacked copies of curriculum (Mwangi, 2015). Thus, teachers who are the implementers of the curriculum lack the appropriate guidance on how to organize lessons for learners with disability.

The government of Kenya launched a new curriculum, Competency Based Curriculum in 2017. The CBC established seven core competencies that every learner should acquire in basic education. These competencies include: communication and collaboration; citizenship; digital literacy; creativity and imagination; critical thinking and problem solving; learning to learn and self-efficacy. The CBC recognized physical education as an avenue through which every learner can achieve all the seven competencies and produce an ethically empowered and engaged citizens through the full development of every learner's potential. In compliance to the new curriculum, in 2021, the government, through the Ministry of Education, through the department

of Early Learning and Basic Education, released the Physical Education and Sport Policy for Basic Education in line with CBC, Constitution of Kenya, Vision 2030 and SDGs (Republic of Kenya, 2021).

According to UNHCR, physical education is a wider society's inclusion platform that is effective in overcoming stigma and stereotyping (UNHCR, 2001). According to American Academy of Paediatricians, when children with disabilities participate in physical education and recreational activities, it optimizes physical functioning and minimizes de-conditioning thus promoting inclusion and enhances the overall wellbeing. Despite the listed benefits, learners with disability still face restrictions in access to physical education and sport. These barriers are created by the lack of knowledge by people without disabilities on how to adequately involve people with disability, physical barriers created by inadequate and inappropriate facilities, lack of adequate programmes for competition and training, and lack of sufficient information on access to resources.

The Physical Education and Sport Policy for Basic Education suggested the following strategies to help achieve inclusion in the teaching of physical education: enhancement and development of flexible PE curriculum that is adaptive to the type and severity of disability, promotion of the use of inclusive methodologies in teaching of PE, collaboration with allied professionals in the implementation of PE and sport for learners with disabilities, promotion of safe and accessible equipment and facilities for learners with disabilities, enhancement of the human resource allocation to mainstream and inclusive PE for learners with disability, and talent development for learners with disability at all levels (Republic of Kenya, 2021).

From the foregoing, it is evident that many interventions have been tried to achieve equity in the teaching of physical education and this study sought to evaluate the effectiveness of these interventions in the schools today. The paper thus sought to answer the question of adequacy and appropriateness of the equipment used in the teaching of physical education in primary schools. This background also points out to the challenges of personnel deployed in the teaching of physical education and the involvement of learners in sports competitions which appear to be major determinants of how well the learners with physical disability succeed in physical education classes. Many of the recommendations made by the education commissions lack implementation, which could give rise to the questions of the level where the implementation failed. Availability of the copies of the policies in the schools would guide the teachers and the school administration on the steps to implement these recommendations. This study also sought to establish the availability of these policies in schools and the support of the school administration towards the teaching of physical education for learners with physical disability.

1.2 Statement of the Problem

People with Disabilities continue to face stigma, discrimination, disempowerment, denied opportunities, economic and social marginalization in many societies (Geere, Omondi, Kifalu, Newton and Heartley, 2013). The cost of this discrimination and exclusion is enormous owing to the poor lives of individuals and lost opportunities and potential because PWDs can make important social, cultural and economic contributions in the society (Mwangi, 2013). Various legislations have been put in place to guide the provision of holistic education to children with physical disability. Examples are Disability Act 2003 and Basic Education Act 2014, which requires learners with disability be included in the general education system and be entitled to

the access to quality and inclusive education as well as support that is necessary to facilitate effective education.

Wapling (2016) established that disability is the main cause of discrimination and marginalization in regard to enrolment, completion rates and literacy levels among primary school going children in Kenya. According to Wapling (2016), assessing the quality of education among the low and middle income countries is a complex matter because much attention is placed on access and attendance, while less emphasis is placed on the reality of what goes on in the classrooms. Also, it pays little attention to the kind of education system that would produce the best outcomes for effectiveness in learning by the learners with physical disabilities. Healey, Pretorius and Bell (2011) observed that insufficient and inappropriate physical facilities and the inability to support learners with physical disabilities were not given a serious consideration in the education system.

As revealed in the background, there are several legislations the country has passed, which lack implementation thus hindering the attainment of the outcomes they are expected to attain. Despite these legislations, many children in various schools do not enjoy these rights. The literature reviewed indicates that teaching of physical education to children with physical disability in primary schools is still not effective (Munayi, 2015). Many challenges are cited including the lack of trained teachers who can modify equipment and facilities to accommodate children with physical disability. There is limited support from the administrations of various schools in facilitating the delivery of physical education programmes for children with physical disabilities (Mutugi & Nderitu, 2014). Owing to these limitations, these children cannot enjoy

quality education, which is a violation of their rights to basic education. This study sought to evaluate the current practice in the inclusion of learners with physical disability in Nairobi City County primary schools.

1.3 Purpose of the Study

The purpose of this study is to assess the extent of inclusivity of learners with physical disability in school physical education programmes in Nairobi City County. This study sought to assess the effectiveness in the delivery of physical education programmes for the learners with physical disabilities. The study identifies the possible barriers and in turn, make recommendations for improvement.

1.4 Objectives of the Study

1. To determine the adequacy and appropriateness of equipment and facilities used to teach physical education for learners with physical disability
2. To establish the training patterns of personnel involved the delivery of physical education and sport programmes
3. To determine the extent involvement of learners with physical disability in sports competitions
4. To assess the responsiveness of the school administration in support of physical education programmes for learners with physical disability
5. To establish the existing policy documents in school regarding teaching learners with disability

1.5 Research questions

The study was guided by the following research questions:

1. Are the available and appropriate equipment and facilities adequate for teaching learners with disability?
2. What are the qualifications of physical education teachers involved in teaching learners with physical disability?
3. How often do learners with physical disabilities participate in sports competitions?
4. In what ways does the school administration support the teaching of physical education to learners with physical disability?
5. Which policy documents are available in school to guide the running of physical education programmes?

1.6 Significance of the Study

This study may expose the pertinent barriers towards the delivery of physical education programmes for learners with disability in mainstream primary schools in Nairobi City County, and suggest solutions for them. It may be useful for policy implementers, including the schools themselves, teachers and parents of the children attending those schools. The research may be useful to constitutional institutions such as the Kenya National Commission for Human Rights and Council for People with Disabilities by providing relevant information on the real situation in schools to allow them to take action towards addressing the identified problems. The study may also help both the national and county governments to acknowledge the existing impediments towards the achievement of SDGs such as Universal Primary Education. The

Ministry of Education may note the existing gaps and take the necessary measures to address them.

Non-governmental organizations may use this research to persuade their financiers to consider the support for school PE and sports programmes for learners with disabilities. The universities and other institutions that train teachers for special education may require the findings in this study to help them skew their training towards sports for children with disabilities. The Teachers Service Commission (TSC) may also require this study as they consider the accreditation and placement of teachers to give priority to the employment of Special Needs Education teachers.

1.7 Limitations of the Study

Due to the fear of manipulation by the researcher, some learners may not have provided the full disclosure of their experiences, which may not give the true reflection of their experiences. To mitigate this limitation, the researcher briefed the respondents about the purpose of the study and the respondents' role in the study. During the briefing, the researcher assured them of freedom from victimization and confidentiality of the information that was obtained from them.

1.8 Delimitations of the Study

The study focused only on primary schools in Nairobi City County, which admit learners with physical disability. These schools are referred to as schools with special units. This study focused on upper primary classes in both private and public schools within Dagoretti North, Dagoretti South, Kibra, Langata and Westlands Sub-counties in Nairobi City County. Appendix 10 shows the map of Nairobi City County.

1.9 Basic Assumptions

In this study, the following assumptions were made: That the respondents gave factual information without fear of being prejudiced or victimized. That physical education is taught in the schools under survey. That the students' respondents were mature enough to comprehend the interview and questions advanced to them

1.10 Operational Definition of Key terms

The following key words were be used as defined in this study:

Physical Disability – Any limitation of a whole or part of the body that affects a learner's movement ability

Inclusion – refers to the extent of learners' involvement in sports activities; including physical education lessons, out of class recreation and sports activities and sports competitions

Policy documents – includes both constitutional and school established documented guidelines on sports for learners with disability. This included circulars and reports.

Quality of Equipment for learners with disability – these are sporting equipment that is specific to disability such as wheel chairs, racing bikes, and modified balls.

School administration – Personnel who have the mandate to run the school such as the head teachers and their deputies.

Personnel – refers to teachers and coaches in charge of implementing the PE syllabus in school

Adequate – refers to the quantity of equipment in relation to the number of learners using the equipment in question

Appropriateness – Refers to the ability of a facility or equipment to meet the need of PWDs

Level of Involvement –refers to the number of sports activities to which the learners are exposed during their stay in school

1.11 Organization of the Study

This study was organised in the following manner: Chapter 1 introduced the background of study, statement of the problem, purpose of the study, objectives of the study and research questions. It also captured the significance of the study, limitations, and delimitations of the study, basic assumptions and the definition of key terms. Chapter 2 contained a review of related literature, under the headings of every research objective. This is followed by the theoretical and the conceptual frameworks. Chapter 3 contained the research design, population and sampling procedures, instruments of data collection, data collection procedures and data analysis. The findings emerging from the study and analyses of the results are contained in chapter 4. Chapter 5 contains a summary of findings from the study, discussion, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section presents literature that is related to: Concept of inclusivity, availability of facilities and equipment in terms of quantity and quality, training levels of the personnel involved in the delivery of sport programmes, involvement of learners in sport competitions, involvement of the school administration in the support of PE and sports programme for learners with disability and finally, policies within the school with regard to sport for disability. This is followed by the theoretical framework and conceptual framework of the study.

2.2 Concept of Inclusivity in Teaching Learners with Physical Disability

Physical education and sport is an area of life where people with disabilities have experienced less opportunities and experiences than those without disability (Kiuppis, 2018). This disadvantage is a result of several participation barriers such as unavailability of appropriate equipment, limited opportunities on training and competition, and limited resources and information and awareness on the available avenues for participation. The concept of Quality Physical Education (QPE) published by UNESCO in 2015 lays the guidelines which describes QPE as the entry level for lifelong physical activity improvement of health awareness as well as enhancing civil engagement and contributing to social inclusion. Physical education is a compulsory subject in primary schools under the 8.4.4 system of education and a compulsory subject in both primary and secondary education under the new Competence Based Curriculum (CBC). The objectives of PE can only be achieved if all the learners can effectively be included

in the delivery of the PE curriculum. This inclusivity can only be achieved if all prohibitive barriers are removed to allow all learners, including learners with disability to freely access and participate in PE programmes. This study was an attempt to look at the situation for learners with physical disability in primary schools in Nairobi City County.

2.3 Adequacy and Appropriateness of Facilities and Equipment in Teaching Learners with Physical Disability

Thinguri, Waudu and Sankale (2014) conducted a study on critical analysis of the sports and games provided to learners who have physical disabilities at basic education level in Kenya. Their focus was on school going children of between ages three to eighteen years. They identified barriers to the provision of physical education programmes that meet the required standards in the Kenyan schools. These barriers include: lack of adequate teachers and trainers to teach adapted PE, insufficient funds to support PE programmes and activities, lack of adequate equipment for adopted PE, inadequate facilities such as stadia and fields, improper attention to PE as a subject, inadequate support from society, lack of donor support and lack of opportunities beyond the school level. The study also observed that sports equipment that is tailor-made for specific disabilities such as basketball wheelchairs, racing wheelchairs, and sitting volleyball equipment is very expensive.

Thinguri, Waudu and Sankale (2014) also observed that most special schools lack adequate and appropriate playing fields that can support both PE and sports programmes for learners with disabilities. Thus, these learners lack the necessary exposure and experience in the sports and recreation activities. Most of the sporting activities were carried out in the fields that are

constructed for the learners living without disabilities. As such, learners living with disability are not able to use them. For instance, there is lack of murrum tracks, and instead, it is grass tracks, which makes it difficult for the learners with disability to use the racing wheelchairs even when they are available. During the rainy season, most fields are soaked with paddles of water and it is difficult for learners to move around with wheelchairs and crutches. Therefore, to facilitate their movement, there is need to have all-weather facilities to facilitate learning.

Mwaura (2010) carried out a study on the challenges of inclusive physical education classes in Kenya. Mwaura observed how the physical education lessons for learners with physical disability were carried out. The study employed observation and interviews for teachers and later made some interventions which were implemented to counter the challenge. One of the major challenges he cited was the quality and quantity of equipment that were employed. Mwaura observed that the learners were not supplied with the relevant equipment for effective teaching in PE lesson. Due to the extent of disability, some learners were unable to move from one point to another because they lacked the correct equipment to support them. The lesson was carried out on a soccer field. The balls presented were inadequate and were inflated, thus the speed of the ball was high and ineffective for such category of learners. The study observed that some learners were idle throughout the lesson and therefore did not enjoy the lesson. After the intervention, smaller and less mobile balls were provided. Learners who used to be idle during the lesson got more involved and in the end, learners were happier during the lesson.

The observation method used by Mwangi (2010) was a good approach because it was able to give the actual reflection on what happens during a normal lesson. However, its scope was

limited because that provided information only for a single lesson in a single school and therefore failed to capture the outcomes in other lessons in different schools. Also, having observed a soccer lesson alone was limiting in experiences because various topics offer different experiences for learners. This study engaged various approaches, more tools and broader base of respondents in order to explain the experiences and the limitations in the delivery of physical education lessons for learners with disability. Mwangi's study also introduced some interventions such as alternative balls which makes it difficult to replace the same results to all other schools.

Mwangi (2013) carried out a study among the SNE teachers in 27 primary schools in urban, municipal and rural areas in Kenya. The study received back 159 self-administered questionnaires and in-depth interviews used to collect information from teachers who shared about the experience they go through with the special needs education learners in primary schools. One of the challenges cited was the high cost of the equipment required to support physical education for learners with disabilities. For learners with physical disability, equipment such as wheel chairs are the most basic, without which their mobility is impossible. It was noted that the lack of such equipment will lock them out of several movements applied in PE. The high cost of these equipment could deter many learners especially those that come from poor families from accessing them, unless external help is extended to them

A study carried out by Korir (2013) found that several schools lacked or had insufficient structured physical facilities which was a hindrance to learners with physical disability since they were unable to carry out their normal learning activities. As observed by Mwangi (2013), Korir

(2013) also noted a lack of basic facilities such as level playing grounds, ramps, and lowered door handles, staircase rails, lowered door steps and adapted toilets, which are very critical for the learners with physical disability to move around with ease. Korir (2013) concluded that the insufficiency of physical facilities led to the congestion and restraining on the available facilities, which in turn hindered the ability of the teachers to deliver in their lesson objectives and thus compromising the quality of education.

Awuor (2014) carried out a study in Nyakach, Nyanza region of Kenya to find out the strategies employed by teachers in teaching adapted PE to learners with physical disability. Awuor (2014) used questionnaires, interviews and observation to assess the influence of equipment and facilities in the success of adapted PE lessons. This study found that 82.1% of teachers and learners were unsatisfied with the quality and quantity of facilities and equipment used for teaching PE to learners with physical disability. Thus, most of the lessons were unsuccessful, which affects the quality of life for individual learners. The study also noted that most of the schools relied on funds and equipment donations from well-wishers such as religious organizations. These funds are always insufficient to purchase the relevant equipment and facilities required for effective teaching of PE.

Mwangi (2013) noted that equipment donated in one country towards sports programmes in another country become expensive in the receiving country because of the shipping costs and duty charged on such equipment. During the United Nation Convention on the Rights for Persons with Disabilities (UNCRPD) of 2007, the signatories are required to eliminate any barriers that prevent the access to equipment and facilities for the disabled. The Kenya SNE

Policy confirms that inadequacy of equipment and facilities and their inappropriateness to cater for specific-disability needs is among the major challenges that hinder access to educational opportunities for children with disabilities (Mwangi, 2013).

Munayi (2015) used an evaluation research design to carry out an evaluation on the teaching and learning process for physical education in primary schools for learners with intellectual disability in Kenya. The study targeted learners, teachers and principals from 44 schools across the country. Out of this target, 35 schools which took part in his study were sampled using random sampling. Data was collected using interviews, questionnaires, and document analysis and observation tools. The study by Munayi (2015) established that most schools tended to have soccer balls, netball balls, volleyball balls and basketball balls and bibs. The study concluded that with this kind of basic equipment, learners are made to depend on the schools administration for the provision of formal equipment. The study recommended that teachers should be more innovative and create their own equipment to minimize overreliance on school administration. The study observed that there were very few improvised equipment, which was an indication that teachers did not show interest in creating equipment that would enrich the experiences of their learners.

According to Munayi (2015), every school is required to meet certain minimum requirements before it is registered by the government and allowed to operate. Among these basic prerequisites are sports facilities with the most basic being the grass field. The study revealed that 93.54% of schools had soccer pitches, 58.07% had athletic tracks and 51.67% had netball courts. Only 3.2% had changing rooms. However, most of the schools used toilets as substitutes

for changing rooms, which 100% of the schools were found to have. 1% of the schools had an aquatic facility, which number is attributed to the cost of construction and expenses involved in the maintenance of aquatic facilities. Generally noted, there was a lack of variety of sports facilities and equipment by majority of schools. Teachers indicated that these facilities were inadequate and not properly modified for learners with disability. Majority of schools experienced a lack of both financial ability and space for expansion.

In his study, Kiarie (2016) noted the lack of adaptive aids and sufficient materials as a critical barrier in making education accessible for learners with disability. Kiarie (2016) highlighted a dire need for assistive technology because student required both adapted seats, both in school and at home, therapy equipment, crutches, wheelchairs, therapy balls and other sports and recreation equipment, which were not readily available to them. This report recommended that the Ministry of Education provides assistive devices for learners with physical devices that would make them access the curriculum and educational environment without restrictions. It also recommended that the ministry, through KISE, should develop a central body that would be responsible for procurement, distribution and maintenance of the assistive devices, which would be devolved to various districts to ensure fairness in distribution.

2.4 Level of Training for Personnel in the Teaching Learners with Physical Disability

Nderitu and Mutungi (2014), carried out a study in Yatta, Machakos County, to establish the perceptions of head teachers and teachers on their effectiveness of inclusion education in public primary schools. Their research used descriptive survey design. In their study, they used questionnaires and interviews to collect data from 16 head teachers and 80 teachers. The study

established that 68.3% of the teachers had taught for more than 10 years. Only a minority, 6.3% had less than 3 years of experience. This data indicates that most teachers had requisite experience in teaching learners with disability. However, only 31.3% of the teachers had undergone training on SNE, while the majority, 68.7% did not have training on SNE.

According to Global Education for All (2013), there is a general scarcity of the teachers with the ability to handle SEN learners. According to their research carried out in mainstream schools in Nairobi, this study established that the situation of the shortage of qualified teachers was heightened by the Government of Kenya's success in the implementation of UPE, which was kick-started in 2003. This success led to the overflow of pupils in schools, including the children with disabilities. However, the increase in the enrolment was not met with an equal increase in the number of teachers. Also, these findings indicated that many of the teachers in these schools are not precisely trained to teach learners with disabilities. There is lack of special training among the teachers. Only 1 percent of teachers were found to have specialized training in handling learners with special needs.

In another study, Awuor (2014) also sought to establish the professional qualification of the PE teachers in Nyakach district. The study found that 43.6% of the teachers had P1 certificates, 33.3% were diploma holders and 20.5% had bachelor's degree in education. Despite the professional qualification of the teachers, none of them had requisite knowledge on Adapted PE. They felt inadequate to teach PE to learners with physical disability because of their inability to adapt the PE activities to suit the learners with special needs. They expressed the need for in-service training to impart them with the requisite competences in adapted PE. Adapted PE involves the development, implementation and monitoring specially designed PE programme, to

help learners with disability enjoy the benefits of physical education, which could not be possible without such adaptation. Training in this area is critical since it imparts teachers with requisite skills to tailor activities for learners depending on their individual conditions.

In 2015, the National Gender and Equality Commission conducted an assessment in six counties in Kenya to establish the extent of accessibility of FPE by children with disability in Kenya. Interviews were conducted with the main stakeholders in schools, county government leadership and national government education officers on the ease of the access to education by learners with disabilities in primary and early childhood education. Data was collected through focus groups, interviews and structured questionnaires. In the study, most head teachers reported that they insufficiency of teachers with requisite training to teach PE for learners with disability. It was found that the curriculum did not guide the teachers on the adaptation of activities. Only two subjects, English and Science, provided guidance on adaptation. It was also noted that PE curriculum, among other subjects, does not offer guidance to teachers on how to adapt PE activities for learners with special needs.

Munayi (2015) indicated that the type of instructional material used by the teacher in the delivery of physical education lesson tend to have an impact on academic success of the learners because they dictate the activities and experiences the teacher will choose. A variety of activities will provide a wider range of experiences while limited experiences will limit the learner's experiences which in turn affects their knowledge and skill acquisition. Teachers who have had a special training on adapted physical education and those who are experienced in teaching it have a better understanding on the best experiences and activities to provide to their learners.

Teaching learners with disability requires not only the knowledge to teach but also a great sense of patience and motivation (Munayi, 2015). Learners with physical disability suffer delays in their growth and their muscles tend to be smaller and weak depending on the degree of disability. There are other anomalies that require specialized ability to train. Munayi (2015) established that there was a correlation between the teacher's experience and their performance in teaching learners with disability. According to Waruguru (2002), in order to effectively assist learner with disability to learn, the teacher should employ a variety of teaching approaches. That could be achieved through collaborations with other who have requisite knowledge and experience as well as adaptation capabilities.

Kavale (2002), explored the genesis of mainstreaming movement along legal, litigation and research dimensions. The article was a retrospect of many research findings and legal guidelines in relation to mainstreaming. The study sought to unearth the problems affecting mainstreaming. His study concluded that many schools lack sufficient funds to purchase sports equipment that are specific to disability. However, the biggest problem is to have teachers who do not know how to modify the existing facilities, equipment, and sports disciplines to accommodate the learners with disability. Kavale went on to note that some teachers shy away from teaching the learner with disability because they do not know how to do it. Many teachers in mainstream schools express their frustration in handling learners with disabilities. Most of them feel incompetent and unqualified to handle their responsibilities. Besides, other teachers took it as a burden, and they felt that the learners with disability slow their job down because of the specialized attention they require and that they cannot cope with the speed of the normal learners. The lack of specialized support and resources for the teachers in mainstream schools adds more desperation, and thus, many of them preferred that these learners were taken to special schools.

Murungi (2017) carried out a study in Igembe South District of Meru County to find out how the school based factors affected the Kenya certificate of Primary Education (KCPE) performance of learners with physical disability in public primary schools. The variables examined by Murungi (2017) study included availability of teaching and learning resources, teaching strategies, teachers' pre-service training, and teachers' attitude in teaching learners with physical disability. The study found that there were very few teachers who had acquired specialized training to teach learners with physical disability. The study recommended that a special needs education subject be included as a compulsory subject in teacher training curriculum. That would ensure that all primary school teachers will have the capacity to teach learners with physical and other forms of disability. The Murungi's (2017) study found that many teachers were happy teaching both learners with disability and those without disability in one class.

Nyaga (2011) alluded that teacher's attitude and behaviour was critical in helping learners with disability achieve learning outcomes. A well trained teacher is expected to demonstrate more patience and understanding to the learners with disability other than mocking, ridiculing and constantly criticizing them, which hinders learning from taking place. Physical education should elicit interest for learners to participate without unnecessary coercion and without the fear of teachers. A well trained teacher will instil confidence in learners and help them learn and enjoy.

2.5 Level of Involvement of Learners in Sport Competitions for Learners with Physical Disability

The findings by Munayi (2015) revealed that 93.55% of the schools allowed their learners to participate in external competitions. Only 6.45% of schools did not expose their learners to any

kind of competitions. However, the findings indicate that majority of the schools taught the major sports such as soccer (58.06%), athletics (16.13%), netball (9.6%), Handball and volleyball (6.45%). Other sports such as volleyball, softball, basketball, tennis and badminton were given little or no attention.

This finding by Munayi (2015) was an indication that majority of the schools for learners with intellectual disabilities invested in exposing their learners to external fixtures. This was attributed to the organised Special Olympics programmes. External competitions are a good avenue for motivating learners. Many learners work harder to learn skills and improve their competencies so that they can feature in the school teams and grab a chance to represent their school in external fixtures. The same motivation applies to learners with physical disabilities. The external exposure acts as a complimentary and a reinforcement to the content taught to learners in class. When learners get an opportunity outside the classroom setting to practice what they learnt on the classroom, they tend to absorb the content better than when no opportunity is given. That is the gap that external competitions help to fill and enhance learning and skill acquisition for learners with disability (Munayi, 2015).

Wekesa, Bukhala and Nguka (2017) carried out a study on the status of disability sports policy implementation in schools in Kakamega County. This study involved teachers in primary schools and county sports officials. The study employed a cross-sectional survey research design, where 69 respondents were involved. Questionnaires and observation methods were employed to collect data from the respondents. Their study indicated that 22.9% participated in volleyball, 28.9% in athletics and 21.9% in soccer. Less than 1% participated in badminton, tennis, hockey and rugby. 73.5% of the schools gave a chance for their learners to participate in competitions

more than once in a year. The rest limited learners to participate either once or none throughout the year. The schools that participated in competitions also limited their learners to zones, county and very few schools allowed the learners to participate at national level. Only one school sponsored their learners to international level. The study showed that lack of and limited participation was blamed to inadequate resources by the schools.

Frantz, Philips, Matheri and Kibet (2011) conducted a cross-sectional study of the involvement in sports activities among the school going children in Kenya. They used a random sampling procedure to pick learners from three different government schools for learners with physical disability. They also picked learners from integrated schools using purposive sampling so that they could get a proper representation of learners with physical disability. Their study sought to find the percentage of learners with disabilities participating in sports activities in comparison with learners without disabilities. The study sampled 365 learners without disability and 234 learners with disability, but only the learners with physical disability were included in their study. From the sample studied, 52 percent of the respondents were active in sports while the rest 48 percent were inactive. Out of the active group, only 27 percent were learners with disability, against the 73 percent of learners without disability. The study identified both environmental and personal factors as the causes of this disparity. Frantz et al (2011) notes that there are generally fewer opportunities for learner's with disability to participate in sports activities compared to the opportunities available for learners without disabilities.

2.6 Effectiveness of the School Administration Support in Teaching Learners with Physical Disability

Lack of funding is one of the major problems cited by the school administration in running of physical education programmes. According to OECD (1994), putting up successful education programmes for learners with special needs is seven to nine times more costly than the programme for typical children. A study conducted by Matheri and Frantz (2009) in Kenya noted that primary education was wholly supported by the government. They further noted that money to cater for the learning needs was sent to the school accounts based on the enrolment and in the distribution of these funds, there is no special consideration given to the special learners. According to (KENPRO, 2010), the amount of money advanced to schools was unequal amount to all the learners in such schools. Therefore, it becomes difficult for the school administration to offer extra financing that is required to cater for the children with disabilities. It is also observed that the administration in many schools did not have the requisite knowledge on how to support learners with disabilities to achieve their full potential in education.

Nderitu and Mutungi (2014) carried out a study in Yatta, Machakos County, to establish the head teachers and teachers perceptions on the effectiveness of inclusion education in public primary schools. Their research used descriptive survey design. Data was collected from 16 head teachers and 80 teachers using interviews and questionnaires. Their findings indicated that 75% of the head teachers had no training on special needs education, which made them lack requisite knowledge on management of special needs education in their schools. It limited their knowledge on the important administrative aspects that are particular to learners with special needs. This study also cited financial constraint as the main challenge facing the head teachers in implantation of inclusive education. Little funding from the government accounted for the head

teachers' inability to allocate sufficient funds towards special needs programmes. As a result, much financial burden is shifted to the parents. In addition, the schools are unable to meet the cost for resources and materials required to cope with the special needs education.

According to Munayi (2015), the school heads play a significant role in defining the school environment. They set the mode on which the school operates and is expressed by their beliefs and the goals they set for the school. The amount of weight in terms of programmes and financial allocation is dependent on the head teacher's perceptions of the goals physical education is meant to achieve. Munayi's study noted that many head teachers know the importance of physical education to learners with special learning needs and were committed to support the physical education programmes in their schools. However, some head teachers failed in their supervisory role. For instance, some of the schools, the teachers indicated that they did not adhere to syllabus guidelines when teaching physical education. Some also indicated that they have not had been issued with the syllabus.

This emergence indicates a supervisory failure from the school heads and quality assurance officer from the Ministry of Education. The administration plays a key role in directing the school resources, including human and financial resources to reach a desired end. School heads who are concerned with the attaining equity in education will master the needs of learners in their schools and take the critical steps to ensure its achievement. Attainment of such equity takes deliberate efforts, which are within the control of the school administration.

2.7 Policies within the School in Teaching Learners with Physical Disability

Muuya (2002) surveyed the head teachers of special schools and special units in Kenya. His particular focus was on educational aims for these head teachers. The main focus of the study was the inclusion of learners with special needs, about national policies and curriculum and the influence of indigenous education and concepts on disability. According to Muuya, many practices, policies, and laws that address PWDs are based on charity as opposed to rights. Such laws and policies tend to neglect the fundamental rights of PWDs and perpetuate dependency instead of promoting independence. The study alludes that the development strategies and policies that focus on fostering the rights for PWDs to fully participate in education, sports, employment and access the public facilities tend to be more cost-effective in the long-term. Also, they are likely to be more inclusive, if only they are enforced.

Many administrators, teachers and school heads have limited information about the provisions of the various policies regarding learners with disability. In the study by Wekesa et. al. (2017), only 33.8% of the participants were aware of the existence of United Nations Convention for Rights of People with Disability Act. 98.8% were aware about the section of the Kenyan Constitution 2010, which provides for right for person with disability. However, 64.2% of the respondents did not know of the existence of the Sports Policy provisions for people with disability. This study revealed that some of the administrators who did not have much knowledge on the existence of policies guiding on rights for learners with disabilities made decisions based on their knowledge.

According to Munayi (2015), there is lack of clear policies regarding the allocation of funds meant for learners with special needs. The school heads assume the full administrative and allocation rights. They are the ones who determine the amount of money to be spent in the

support of programmes for learners with special needs. They decide on the allocation of all physical, fiscal and social resources. Thus, due to lack of a clear policy on the allocation of resources, Munayi (2015) reckons that the development of PE depends on the mercy of the school heads. Where the school head deems PE as important, they allocate a larger amount compared to school heads that deem PE as insignificant.

International Labour Organization (2009), outlined a number of policies that touch on the inclusion of learners with disability in Kenya. These policies range from country legislations to international regulations. For example, the Persons with Disabilities Act of 2003. This is an Act of Parliament that provides for rights and rehabilitation of PWDs and to ensure equalization of opportunities for PWDs. The Act also established the National Council for Persons with Disabilities whose part of the mandate was to ensure that PWDs have maximum participation in sports and recreation activities. Free Primary Education (FPE), 2003 is another economic example. It sought to eliminate all charges that prevented children from poor families from accessing education. An important factor towards FPE was its extension to special schools as well as schools admitting learners with disabilities. According to ILO, such schools were to receive additional funding to enable them to meet the special needs of learners with disabilities.

2.8 Summary of Literature Review

The summary of the reviewed literature reveals the underlying factors that prevent appropriate delivery of physical education lessons to learners with disability in primary schools. The literature highlights a pattern of factors leading to unsuccessful physical education lessons. The recurrent factors include insufficiency and inappropriate equipment, teachers who are qualified to teach special needs education but without any training on APE, poor implementation of

available policies on learners with physical disabilities and inadequate exposure of learners with disability to sports competitions.

However, most of the literature reviewed consist of studies which were carried out more than four years ago. Since these studies were carried out, it is expected that change could have taken place. It can be noted that several developments in education have taken place, including the introduction of the Competency Based Curriculum (CBC). With the emphasis placed in PE by the CBC, many schools will take a keen interest in boosting their level of teaching of PE, including PE for learners with disability. Therefore, this study sought to establish the current status in the primary schools.

2.9 Theoretical Framework

This study is based on the Social Model of Disability (SDM), which was popularized by Shakespeare and Watson (2002). According to Shakespeare and Watson, SDM is founded on the view that disability is not a result of biological impairment that is specific to an individual but rather from the existing physical and social structures that limits a person's full participation in the society. Rather than biological impairments, SDM theorists view societal barriers as the main impediments to the participation of people with disability.

This study endeavours to establish the extent of inclusion of learners with disability in primary school physical education programme. Therefore, there is more to borrow from the social model of disability as it tries to find out the barriers to their inclusion in PE and sports. The level of inclusion of learners with disability in schools PE and sports programme is a good measure of

the success of the societal institutions in their efforts in the provision of equal opportunities for all people, with and without disability.

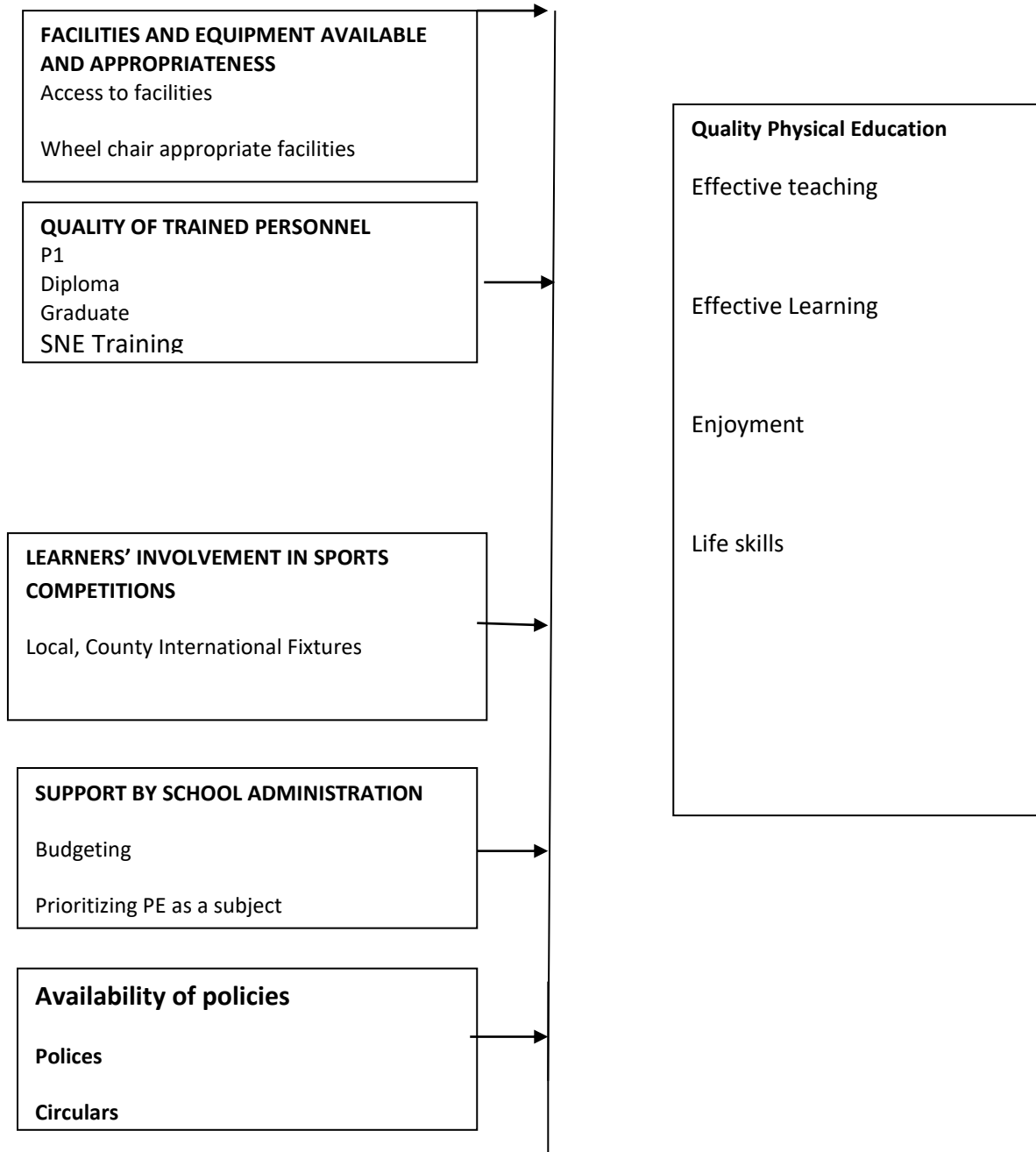
2.10 Conceptual Framework

The conceptual framework shows the outcome of the involvement of learners in physical education and sport and their success in sports after school (dependent variables), against the factors that influence them (independent variables). The independent variables include the involvement of school management, adequacy and appropriateness of equipment and facilities, existence and implementation of policies and the level of training for personnel. For success in disability sport for children in primary school, there is a need for the conducive environment within the school setting to accommodate and appreciate them, which should be highly supported and enforced by the school management. Equipment and facilities that are specific for learners with physical disability are necessary for them to participate and compete. Sufficient equipment will allow learners to interact with them during the lesson and that will facilitate skill acquisition by learners. Equipment and facilities should be appropriate for use by learners with disability, who are not able to use equipment that are normally used by other learners. Thus, their equipment should be modified to enable their use and enjoyment. Teachers who are trained in adapted physical education will be able to modify equipment and activities for learners with disability and facilitate their learning. Besides, there is a need for policies, both at school and government levels to support and to guide the implementation of PE programme for learners with disability. However, the presence of these factors may not wholly guarantee the success of individual learners. Their response is likely to be affected by other factors such as personal traits e.g. fear and feeling of shame/confidence, parental support and treatment by peers.

Figure 2:1 Conceptual Framework of the variables influencing the involvement of learners with disability in sports in Nairobi City County primary schools

Independent Variable

Dependent Variable



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter will discuss the methodologies that will be applied in collection and the analysis of data in this research. It is organised in the following manner: the research design, location of the study, target population, sample size and sampling procedures. These are followed by instruments for data collection, data collection procedures, analysis of data, validity, and reliability of research instruments and finally the ethical considerations in data collection.

3.2 Research Design

This study uses a descriptive survey research design. According to Mugenda and Mugenda (2013), descriptive survey design provides a systematic collection and analysis of data in order to answer question in regard to current status of a project, programme or activity. It is used to obtain data that is useful in evaluating the current practice and providing a basis for decision making (Mugenda and Mugenda 2013). Creswell (2013) describes descriptive survey as a type of research that paints the state of affairs as it exists where the researcher cannot control the variables but only reports the outcomes as they happened or as they happen. The current study sought to describe the present phenomenon concerning conditions, processes, practices, relationships, and trends in the administration of PE programmes in the selected schools. This was achieved by gathering information directly from the respondents within the school setting. Thus, descriptive survey design was the best suited to achieve this purpose.

3.3 Location of the study

This study was conducted within Dagoretti North, Dagoretti South, Kibra, Langata and Westlands Sub-counties in Nairobi City County. Appendix 10 shows the map of Nairobi City County.

3.4 Target Population

This study targeted the head teachers, PE teachers and learners with physical disability in Nairobi City County primary schools. The study focused on class 7 pupils because of the fact that they have been in school for long, yet they are not an examination class, they have more experiences and information that was important to answer the research questions. According to Nairobi County Education Office (2018), there are 36 schools in Nairobi City County which have special units that admit learners with physical disability. There are 82 physical education teachers and 280 class 7 pupils with disability admitted in these schools.

3.4 Sample Size and Sampling Procedure

According to Mugenda and Mugenda (1999), a 20-30 percent sample in survey studies is sufficient to draw a generalization about the target population. This study sampled 20 percent across the target population. Thus, 20 percent of this population included 7 head teachers, 16 teachers and 56 pupils, who were sampled out for the study. Simple random sampling method was used to select the schools for the study. The teachers had the ability to identify the learners who could give appropriate responses. Schools for study were picked from Langata, Kibra, Dagoretti and Westlands Sub-counties because they were more accessible by the researcher.

Table 1: Summary of target population and sample size

	Target Population	Sample Size	Percentage
Schools	36	7	20
Teachers	82	16	20
Pupils	280	56	20
Head Teachers	36	7	20

3.5 Instruments for Data Collection

A questionnaire (Appendix 3) was used to collect information from the teachers. The questionnaire, filled by the teachers, had both closed and open-ended questions. The questionnaire was used to collect both qualitative and quantitative data on the existing personnel, the level of engagement in competitions and the level of support by the school administration towards the teaching of physical education to learners with physical disability. The questionnaire was more preferable because of its ability to collect a large amount of data from the sample size. It also allowed respondents to give feedback freely without fear since they were not expected to include their names.

The study used an interview schedule for the head teachers (Appendix 2), and pupils (Appendix 1). The interviews schedules were designed to help capture the verbal information in regard to experiences faced by the learners in their interaction with physical education programmes. The interview was more preferable tool than questionnaires to collect information from the learners because some of them did not portray the ability to correctly interpret written questions and give appropriate feedback. The head teachers were expected to give more information during the

interviews about their experiences, successes, and challenges they face in the delivery of PE programmes for learners with disability.

An inventory (Appendix 4) was used to provide data on the sufficiency and quality of equipment and facilities. The inventory was designed to indicate the equipment and facilities available. It also indicated the quantities of the equipment available, which helps to establish sufficiency of the equipment in relation to the number of learners. In addition, it indicated whether the equipment and facilities available are modified for use by learners with physical disabilities. A document analysis (Appendix 5) was used to evaluate the existing policy documents by listing the policy documents that are physically available in each school.

3.6 Validity of Research Instruments

Validity is the extent of the ability of the instrument to measure what it was intended to measure and perform as it was designed to perform (Biddix, 2014). The validity of the interview schedules for head teachers, for teachers and for pupils was checked by conducting a pilot study. Piloting helped to establish the effectiveness of the questions and questioning techniques. After the pilot, the necessary reviews on the questions and questioning techniques was done by the help of the supervisor. Two schools were used to pilot study. The two schools were not included in the final study.

The validity of questionnaires was determined through the pilot study. Piloting helped to establish the effectiveness of the questions in capturing all the relevant information needed for the study. The document analysis was subjected to expert review for criticism, correction and

approval. The pilot study helped to identify the gaps from the inventory. It revealed the areas that required correction.

3.7 Reliability of Research Instruments

Reliability refers to the ability of a research instrument to produce similar results if the instrument is used with the same respondents and in the same setting repeatedly (Sulliva, 2011). The instrument will be reliable if it can obtain similar results at different settings. Test-retest method was used to establish the reliability of the interview schedules. The schools that were used during piloting were not featured in the actual study. Internal consistency reliability was applied to test the reliability of the questionnaires. Cronbach's alpha is an internal consistency measure which ranges from 0.0-1.0. According to Sekaran (2003), the closer the reliability is to 1, the higher the internal consistency of the reliability. In Cronbach's alpha consistency measure, a resulting coefficient of above 0.70 is adequate. The reliability of both the document analysis and inventory were measured using Cronbach's alpha to identify their internal consistency

Table 2: Results of reliability tests.

Tool	Test Applied	Result
Interviews	Test-Retest	---
Questionnaires	Cronbach's alpha	0.87
Inventory	Cronbach's alpha	0.91
Document Analysis	Cronbach's alpha	0.90

3.8 Data Collection Procedures

Data collection involved actual visits to the schools under study. The questionnaires were distributed to the teachers and were collected on the same day of administration. Face-to-face interviews were conducted with the teachers to complement the questionnaires and help get more information from the respondents. Face-to-face interviews were also conducted with the learners and head teachers. The inventory was filled after actual visit to the school and walking with the teachers on fields and stores to mark the number and condition of equipment and facilities. Document analysis was filled by the actual recording of the available documents, both hard copies and soft copies.

3.9 Data Analysis

The data obtained by questionnaires from teachers was summarized and analyzed by the use of NVivo computer software and was qualitatively and quantitatively. Data from interviews with teachers, pupils and head teachers was analyzed qualitatively and quantitatively. Data from inventory and document analysis tools was analyzed quantitatively. For qualitative data, content was analyzed by using Thematic Network Analysis approach, where computer software was used to develop codes from similar data. The answers given on questionnaires and interviews were reviewed, and codes were developed from these answers. After all the data had been coded, the codes obtained were developed into basic themes. Codes that describe similar situation were collected into a single basic theme. Further, the basic themes were consolidated into organized themes in order to reduce the ambiguity created by a large volume of data and make it easy to interpret and derive more meaning. For quantitative data, content was analyzed into frequencies, ratios, percentages and graphs.

3.10 Ethical Considerations

Permission to collect data was sought from National Commission for Science, Technology and Innovation (NACOSTI) and the State Department of Early learning and Basic Education, which is a department under the Ministry of Education. The researcher avoided putting the participants at any risk and ensure protection of their rights in the following ways: Names of the participants were not revealed, the participants were informed how the information obtained from them will be recorded and used, participants were assured of total confidentiality of the information they share. The pupils, being minors, were given consent forms to take to their parents. The parents who signed the consent forms had their children interviewed but those who did not return the consent forms were not included in the study.

CHAPTER FOUR

FINDINGS AND DISCUSSIONS

4.1 Introduction

This study sought to evaluate the inclusion of learners with physical disability in Nairobi City County primary schools. This chapter presents the results of the data collected from the sampled primary schools in this county. The data collected was presented along the theme of the objectives.

4.1.1 Response Rate

Response rate is the measure of returned questionnaires against the administered questionnaires. In this study, the response rate extends to include the percentage of the interview respondents. According to the Fincham (2008), a response rate of 70 percent is acceptable. This study intended to utilize data from 7 head teachers, 16 teachers and 56 pupils. Data was collected from 6 head teachers, which represents 85.7 percent response rate. One teacher was unavailable in two attempts and was consequently left out of the study. Questionnaires were collected from 12 teachers, which represents a return rate of 75 percent. Some schools had only one teacher of physical education which contrary to the projection of getting two teachers in every school. 52 pupils were interviewed, a representation of a return rate of 92.9 percent.

Table 4.1: Summary of Response Rate

	Target Population	Sample Size	Response Rate	Response rate percentage
Schools	36	7	7	100
Teachers	82	16	12	75
Pupils	280	56	52	92.9
Head Teachers	36	7	6	85.7

4.2 Availability of Facilities and Equipment

The study was intended to find out the availability of equipment and facilities for teaching physical education for learners with physical disability. The availability of equipment and facilities was assessed by physically locating them and recording the number and quality of the equipment and facilities in the inventory.

4.2.1 Analysis of Adequacy of Equipment

For the purpose of this study, the equipment was divided into two categories: basic equipment and supportive equipment. Basic equipment included the equipment that is necessary for a lesson to take place, without which it would not be possible to deliver in a PE lesson. Supportive equipment included the equipment that aids movement of the learners so that they are able to enjoy the lesson. Learners with physical disability are already physically disadvantaged and so to achieve equity and inclusion, they require supportive equipment.

Table 3:2 Analysis of Basic Equipment:

Equipment	Frequency	Ratio
Balls	5	1:11
Tyres	11	1:5
Hoops	16	1:3
Javelin	3	1:17
Relay batons	4	1:13

Various basic equipment were available in the schools albeit in small quantities. Balls are among the most basic equipment used in teaching PE due to the fact that many games are played using balls. Balls are also common equipment owing to the popularity of soccer commonly known in many areas of Nairobi City County as ‘ball.’ Out of the 7 schools that were studied, only a total of 5 balls were found, which means balls are completely lacking in some schools. In other schools, only one ball was available. The same ball was shared with pupils without disability, making it difficult for learners with disability to interact with the ball. Teachers were unable to make use of small groups when teaching. Sometimes, the lesson may conclude without them coming into contact with the ball.

According to Lynn & Ratliffe (2013), most activities in physical education require opportunities to practice and grouping learners into small groups is the ideal way to maximize group practice. Smaller groups help reduce the time the learners wait for their turn to use the equipment. Barney & Christenson (2018) established that small groups were important for the fact that students learn the skill better than when in large groups. When learners were placed in groups of 3, 6 and

12, Barney & Christenson (2018) found that learners in groups of 3 enjoyed the lesson better because the learners had more number of passes, kicks, and shots compared to learners in the groups of 6 and 12. Barney & Christenson (2018) advised that even with large class sizes, teachers should retain groups with not more than 8 learners. Thus, the ideal ratio would be 1:8 against the observed result of 1:11.

Balls are basic play equipment that could be readily availed because they are cheap and easy to obtain. When they get damaged, they may take long to repair. The cost for repairing one ball in Nairobi costs between Ksh. 100 to Ksh. 300. The teachers noted that the school administration takes long to address the repairs for damaged equipment. These findings are in coherence with the study by Munayi (2015), which indicated that the school administration in most schools avails limited equipment and many teachers tend to rely on the equipment that is formally purchased by the school administration. This finding is also consistent with Awuor (2014) whose study found that most teachers were unsatisfied with insufficiency of equipment for teaching PE to learners with disability, which led to many lessons being unsuccessful and consequently, low skill acquisition by learners.

The number of tyres found were 11. Learners with physical disability usually take longer time to move from one point to another. When one tyre is shared by five learners with physical disability, and each learner taking an average of five minutes playing with the tyre, there will be twenty five minutes spent before the tyre comes back to the first learner for the second round. An effective lesson requires that all learners be actively involved throughout the lesson rather than wait for turns to have a feel of the equipment. Learners with physical disability need to spend more time with the equipment during the lesson because of the challenge in movement. The ideal

situation is where one tire is shared between two learners at most. The distance between them is kept short so that the learner waiting for the turn does not wait for a longer time. The challenge in the use of tyres is greater when learners with disability share with the learners without disability because they find the speed of learners with disability slow and limiting to them. In their efforts to maximize the play time, they take long with the tyres before giving to those learners with disability. Athletics equipment such as discus and javelin was present in two schools. Though in limited quantities, it seemed to be sufficient since not all learners use this equipment at the same time.

Table 4.3: Analysis of Supportive Equipment

Equipment	Frequency	Ratio
Wheel Chairs	50	1:1
Crutches	13	1:4
Hammock	2	1:26
Standing Aids	2	1:26
Therapy Ball	1	1:52

Many schools have made efforts to acquire wheelchairs. The ideal situation is having one wheel chair per child because it is not appropriate for learners to share the wheel chairs. Sufficient wheel chairs are required so that every learner can be able to move around especially during PE lessons. When in class, some learners come off the wheel chairs and sit on desks. The need for the wheel chair arises again when they need to move around the compound, either to visit the toilets or during lesson breaks. However, there are some learners whose level of disability is

profound and have to stay in wheel chairs throughout. During the interviews, the teachers reported that most of the wheel chairs were donated by different organizations such as Wheels for Kenya and the Association for the Physically Disable Kenya (APDK). When the wheel chairs are broken, some may take long time to repair or replace. Some of the pupils are brought to school by their parents, who carry them on their backs. Others are dropped in school by use of motor bikes commonly known as *boda boda*, which are a popular means of transport in Nairobi City County. However, during physical education lessons, a pupil cannot be carried around and be able to participate. For effective inclusion, every learner with physical disability should have a wheel chair. Thus, the ideal ratio is one above 1:1 which ensures that even in case of a breakage of a wheelchair; learners will have access to spare ones before the broken ones are repaired.

Depending on the severity of physical disability, some learners are more comfortable using the crutches; especially during play time for instance learners who have their arms that are free from disability. In some games and on the surfaces where wheelchair movement is limited, crutches serve to be very helpful to learners with physical disability because crutches allow a wider range of movement than the wheelchair. To allow flexibility of lessons and the ability for teachers to teach a wide range of skills, it is recommendable to have both the crutches and wheelchairs available. The findings on this study reveal that the ratio of wheelchairs to learners is 1:4. It is worth noting that not all learners have the ability to use crutches for movement. However, for effectiveness of PE lessons and to boost the breath of skills, a ratio of 1:1 is preferred. Insufficiency of such equipment negatively affects the delivery of the lessons as indicated by Mwaura (2010) who found that insufficient equipment is a major limitation to learners who have severe physical disability because they are unable to move around effectively during the PE lessons.

The standing aids help the learner who cannot stand on their own, to get off their wheel chairs and perform alternative activities. They help them enjoy a wide range of activities and leave them satisfied at the end of the lesson. The hammock and therapy ball are indoor equipment which provide an alternative for learners with extreme physical conditions to enjoy physical activity, especially during the days when they cannot cope with the outdoor activities. However, only one school was found to have both the hammock and the standing aids.

This study supports the findings by Awuor (2014) who established that most of the PE lessons for learners with physical disability were unsuccessful owing to the limited and inappropriate equipment and facilities. The teachers were unsatisfied with the quality and quantity of teaching equipment availed by the school administration. Thinguri et al. (2014) noted that the cost of the equipment is high, which is consistent with Awuor (2014) findings that some schools rely on donations, and thus do not get sufficient funds to allocate towards the purchase of equipment. However, Munayi (2015) alluded that PE teachers should not wholly rely on the formally purchased equipment. On the contrary, teachers should learn to be creative and improvise equipment to make their lessons more successful.

4.2.2 Analysis of Appropriateness of Equipment

Measuring the appropriateness of the equipment used in teaching PE for learners with physical disability will help in determining the impact these equipment have on learning outcome, and the difference they make considering their absence.

Table 4:4 Number Of Schools that Provided Modified Equipment for the Learners.

Equipment	Frequency	percentage
Variety of equipment	5	71.43

Size of the balls	1	14.29
Reduced size of the court	5	71.43
Lowered height of goal posts	5	71.43
Enlarged rings	1	14.29

Learners with physical disability will benefit from equipment that are modified to fit their level of need. Table 4.4 indicates 71.43 percent (n=5) of schools provided a variety of equipment to enable the learners choose the equipment that they were comfortable using. This equipment included hoops, ropes and tyres. However, only 14.29 percent (n=1) of schools were able to provide different sizes of balls. Portable equipment were useful in reducing the size of the court and 71.43 percent (n=5) of the schools were able to offer modified areas of play. That also provided the opportunity for them to adjust the goal sizes to suit the learners with disability. One school provided portable enlarged rings for basketball and netball that enabled learners to shoot without much difficult. Such equipment provide fulfilment to learners as they find learning easy as they can achieve their goals and feel satisfied. These findings support the study of Awuor (2014) who found that 51.3 percent of teachers were able to provide adjusted equipment for learning with learning needs, while 82.1 percent were able to adjust both rules and equipment to accommodate them.

4.2.3 Analysis of Facilities

The observed facilities were analyzed on table 7 as follows:

Table: 4.5 Analyses of Observed Facilities.

Facility	Frequency	Percentage
Soccer Pitch	6	85.71
Netball Court	1	14.29
Basketball Court	1	14.29
Athletics Track	1	14.29
Volleyball court	4	57.14
Climbing rump	2	28.57
Swings	2	28.57
Walking rails	1	14.29
Therapy room	1	14.29

Soccer playing areas is a commonly embraced facility in most schools in Nairobi City County as observed from Table 4.5 the findings where 85.71 percent (n=6) of school were found to have a designated area for soccer. That was followed by volleyball courts that accounted for 57.14 percent (n=4). However, many schools have not put emphasis on other games which would supplement soccer and allow learners who cannot not effectively participate in soccer to enjoy other games. For instance, only 14.29 percent (n=1) of the schools were found to have athletic tracks. A notable limitation was also that the athletic tracks were grass surfaces, which made it difficult for many learners to use them while on a wheelchair, especially when the ground is wet and soft. In many times, the learners on wheelchair have to rely on others to push them to and from the playing field, which inhibits the expression of independence from them. Thinguri et. al.

(2014) noted that there was lack of murrum tracks in schools, which limits the movement of wheel chairs and consequently affecting their quality of learning due to limited activities.

Only 28.57 percent (n=2) schools had climbing rumps. Rumps help facilitate movement for learners on wheel chairs and access to facilities. In other schools, learners experienced difficulties in moving from one area to another especially where there are stair cases. Most of the playing fields are constructed with minimal consideration of learners with disability. One school had well modified goal posts for soccer, netball and volleyball. Their sizes and heights were adjusted to appropriately suit the learners with disability. 28.57 percent (n=2) schools had swings which also provided sufficient enjoyment for learners. 14.29 percent (n=1) school had invested in walking rails and a therapy room. Walking rails helped the student to walk around as they rest from the wheelchairs. Therapy room provided an alternative indoor physical activity for learners with severe disability.

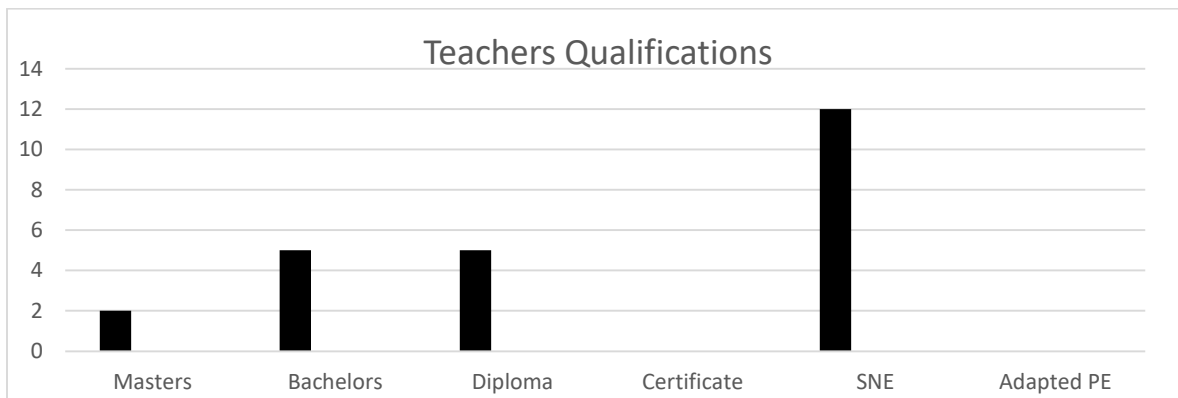
This finding is an indication that some schools are making attempts to invest in sports facilities for learners with special needs and ensure they attain quality education. However, as observed by Awuor (2014), many schools have not invested in equipment for learners with physical disability. Munayi (2015) recommended that teachers be more creative and modify facilities and equipment that would be suitable for teaching learners with disability instead of entirely relying on school administration for the purchase of equipment and facilities. The study also affirms the findings by Obiero & Mwangi (2019) who found that 70 percent of schools lacked basic facilities to support the movement of learners around the school. That limitation of movement was found to greatly jeopardize academic performance and that many learners fail to attend school consistently because of the movement challenges within the school environment. Lack of

facilities to facilitate movement for learners with disability contradicts the spirit of inclusivity which has been guaranteed to all learners.

4.3 Availability of Trained Personnel

This objective was to determine the level of training for teachers involved in teaching physical education for learners with physical disability. The findings are summarized in Figure 4.1.

Figure 4:1 Teachers Academic Qualifications



Among the teachers interviewed, 100 percent (n=12) all of them have undergone training on Special Needs Education. 16.6 percent (n=2) had a masters degree, 41.7 percent (n=5) had a bachelor's degree and 41.7 percent (n=5) had a diploma in education. However, none of them has special training on Adapted Physical Education. Graph 4.2 gives a summary of the observed quality of teachers.

These findings show a great deviation from the Global Education for All (2013), which indicated that only 1 percent of teachers in Nairobi, had undergone training in Special Needs Education. It also disapproves a similar finding by Awuor (2014) whose study showed that none of the

teachers from his sample had undergone any training on Special Needs Education. The study by Nderitu and Mutungi (2014) indicated that only 31.3 percent of the teachers in their sample had acquired SNE training. However, comparing these studies of the time, much changes have taken place. The Ministry of Education has put emphasis on the involvement of teachers with SNE education to teach in special units of the mainstreamed schools. However, this study confirms the earlier studies by Nderitu and Mutungi (2014) and Awuor (2014), who established that the teachers who have undergone SNE training lack the ability to adopt PE activities for learners with disability. The aspect of Adapted PE is critical but it lacks emphasis on the curriculum for SNE teachers.

4.4 Involvement of Learners in Sports Competitions

The pupils who were interviewed expressed their interest in various sports. Table 4.6 indicates the frequency of the sports of interest by the pupils.

Table 4:6 Summary of Involvement of Learners in Sports Activities

Game	Frequency	Percentage
Soccer	17	32.69
Athletics	15	28.85
Wheel Chair racing	6	11.54
Skipping rope	6	11.54
Sitting volleyball	5	9.62
Tennis	5	9.62
Netball	4	7.69
Tyre Riding	4	7.69

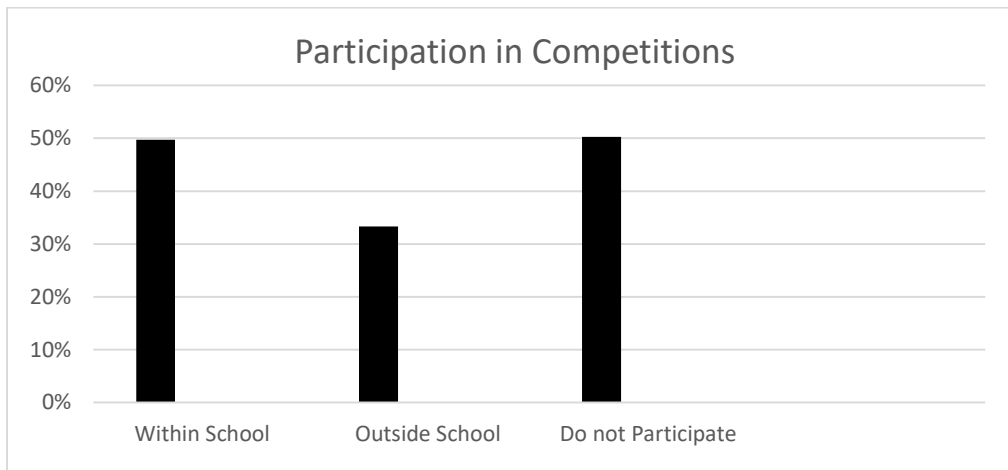
Swimming	3	5.77
Boxing	2	3.85
Roller Skating	1	1.92

32.69 percent of pupils (n=17) indicated they have interest and had an opportunity to be taught soccer, 28.85 percent (n=15) athletics, 11.54 percent (n=6) for both wheelchair racing and rope skipping. In schools with sufficient wheelchairs, wheelchair racing is a commonly enjoyed competition by learners with physical disability. 9.62 percent (n=5) of learners expressed interest tennis and sitting volleyball while netball and tire ridding were enjoyed by 7.69 percent (n=4) of learners. Swimming, boxing and roller skating were the least enjoyed with 5.77 percent (n=3), 3.85 percent (n=2) and 1.92 percent (n=1) respectively. According to Munayi (2015), physical education is the most enjoyed subject by the learners with intellectual disability. However, many learners with physical disability lack opportunities to experience these games because some of them did not know of the existence of some sports that they could otherwise develop interest and excel in.

4.4.1: Levels of Learner’s Participation in Sports

This parameter was to test the level at which learners with physical disability are given a chance to participate in sports of their interest and their exposure to competitions. The findings are summarized in Figure 4.2.

. Figure 1:2 Levels of learner’s participation in sports



49.8 percent of the learners indicated that they participated in competitions. Only 33.3 percent of the pupils indicated that they participate in competitions outside the school.

This study confirms the findings by Munayi (2015) that many teachers put more emphasis on teaching the major sports such as soccer, volleyball and athletics. However, as indicated in table 8, there are a variety of other emerging sports that learners are showing interest. Sports such as skipping rope (10.7 percent), tire ridding (7.1 percent), swimming (5.4 percent) and roller skating (1.8 percent) are emerging sports which are exciting to learners with disability. However, not all these sports are provided in their schools. For instance, none of these schools had a swimming pool or tarmac courts for roller skating. Due to lack of these facilities, learners are never exposed to the sports activities of their interest during their life in school, which is the evidence of denied opportunities.

The competitions within the school involve intra-class competitions. These are competitions among the class mates. The competitions outside school are organized competitions for learners with disability, which are organized by organizations such as Special Olympics Kenya and

Action Network for the Disabled (ANDY). Special Olympics is a global organization that serves athletes with intellectual disabilities through volunteer programmes. The Ministry of Education organizes for annual competitions for learners with disabilities at zonal, regional and national levels every year. However, a majority (50.2 percent) of the pupils indicated that they do not participate in any form of competition. When measured against the outcomes in table 4.3, it indicates that learners with disability have great interest of participating in sports but do not get opportunities to participate. Learners cited various reasons for their failure to participate in sports. Those who participate also cited challenges they face during PE and sports programmes. The reasons cited for lack of participation are summarized on table 4.7.

Table 4.7: Limiting Factors on Participation in Sports

Reason	Frequency	Percentage
Lack of sports uniforms	8	28.7
Lack of shoes	6	21.4
Lack of a chance to use the balls and tyres	4	14.3
Harassment by other pupils	4	14.3
Inability to cope with intensity and speed of other pupils	3	10.6
General fear	2	7.1
Headaches during play	1	3.6
Total	28	100.00

Learners cited several reasons for their lack of participation in sports activities. 28.7 percent (n=8) cited the lack of uniforms; 21.4 percent (n=6) cited the lack of shoes. That shows that a

total of 50.2 percent of learners are closed from participation in PE and sports due to lack of basic sports attire. This outcome is a replica of Frantz et. al. (2011) who cited personal and environmental factors as the main hindrance for participation in sports by learners with disability.

In the inclusive classes, learners with disability face several challenges during PE lessons. 14.3 percent of them (n=4) are unable to enjoy the use of equipment due to dominance by the learners without disability. 14.3 percent of learners with physical disability have faced some form of harassment by other learners and got scared from participation. Another 10.6 percent (n=2) of this population are unable to match the intensity of the activities, which makes them withdraw along the way. This is an indication of the teachers' inability to modify the activities for this category of learners to make them enjoy the activities equally with other learners. 7.1 percent have general fear and get scared from participating in sports activities. These factors are a major limitation to learners with disability, which leaves them with limited opportunities for participation in sports activities. This fact accounts for the big disparities between opportunities for learners with disability and those without disability. In their study, Frantz et al. (2011) observed that although disabled children interact with non-disabled learners in integrated schools, children with disabilities tend to be more inactive in sports activities compared to learners without disability. All the stakeholders in education, including teachers, head teachers and Ministry of Education officials at county and national government have an obligation to ensure equality in education.

4.5 Involvement of the School Administration

One of the objectives of this study was to establish the involvement of school administration in support of physical education and sports programme in the schools. The responses indicated a varying levels of support from different schools. Teachers indicated that they received varied support from the school administration as summarized on table 4.8.

Table 4.8: Analysis of schools administration support towards PE programme

Type of Support	Frequency	Percentage
Equipment (balls, ropes, wheel chairs, swings, rackets)	4	57.14
Facilities (playing fields, ramps)	2	28.57
Transport during games	1	14.29
Corrective services to learners (physiotherapy, hydrotherapy)	1	14.29
Sufficient time allocated for PE programmes	1	14.29

From Table 4.7 up to 57.14 percent of schools (n=4) indicated that the school administration provides them with basic equipment such as balls, ropes and swings. Only 28.57 percent (n=2) of the schools have ramps for wheelchair accessibility, 14.29 percent (n=1) of the schools provide support to pupils to participate in sports while 14.29 percent (n=1) support learners with extreme conditions with specialized services. Only 14.29 percent (n=1) of teachers felt that the time the school administration allocates for PE is sufficient and hence a form of support for PE programme.

Teachers indicated a number of challenges they face in the delivery of PE programmes to learners. Table 4.9 indicates the teachers' challenges in the delivery of PE programmes.

Table 4.9: Teachers' Challenges in Delivery of PE Programme

Challenge	Frequency	Percentage
Lack of adapted equipment	7	58.3
Lack of general equipment	6	50.0
Dealing with learners mobility problems	4	33.3
Inability to adapt physical education activities	3	25.0
Lack of resource canters	1	8.3

As noted from table 11, majority of the schools are unable to provide the required equipment and facilities. Equipment such as balls and ropes are cheap and easy to acquire. Some administration does not pay a keen attention to provision of equipment, which are fundamental for effective teaching of physical education. The insufficiency of mobility aids such as wheelchairs present the teachers with more difficulties in adjusting their PE programmes due to limited mobility of the learners. On average, every teacher faces multiple challenges in their teaching of PE.

The playing field is a critical facility but in the schools studied, all the playing fields are inadequate and inappropriate for use by learners with physical disabilities. Teachers indicated that sometimes they look for an indoor activity since they don't achieve the lesson objectives when they conduct PE lessons out of class. All the fields observed were grass fields. The grass fields are not appropriate for use with a wheelchair. The head teachers reported that the government funding for them is too little to meet the growing need of SNE, which greatly affects the implementation of inclusive education. The little money available is not able to cater for the learning materials, food and still have sufficient to purchase sports equipment. Munayi (2015), indicated that the beliefs and perceptions of the head teachers about the goals PE is set to achieve

determines the amount of resources allocated to it. The head teachers, who do not perceive PE as beneficial, give little attention to it.

4.5.3 External Funding

Turkish High Commission through the Turkish Corporation and Coordination Agency (TIKA), National Fund for Disabled Kenya, Plan international, USAID, Faith Based Organizations and Community based Organizations have provided support to schools through the construction of facilities and provision of equipment and food donations to schools with learners with disability. Wheels for Kenya and the Association for the Physically Disable Kenya (APDK) have provided wheelchairs for the schools.

According to Munayi (2015), the government is the biggest sponsor of education in Kenya. The Ministry of Education includes compulsory physical education lessons in timetables at all school levels, which is an indication of the government's commitment to offer holistic education. The data collected indicated that most of the schools rely on external funding to sponsor PE programmes for learners with physical disability. This outcome is an indication that funds are diverted to cater for other needs in schools leading to less spending on adapted PE equipment and facilities.

4.6 Policies within the School regarding Physical Education

This objective was to establish the available policy documents to guide the school on physical education for learners with physical disability. The outcome is summarized on Table 4.10

Table 4.10: Availability of Policies

Document	Frequency		Percentage
	Available	Not Available	
Memos from MoE	5	2	71.43
Kenyan Constitution 2010	3	4	42.86
UNCRPD	2	5	28.57
Kenya Schools Sports Association (KSSA) Handbook	1	6	14.23
Internal Policy Manual	1	6	14.23

There are both external and internal policy documents which were revealed to exist in the schools examined. Among the external policies include the policy documents issued by the Ministry of Education through the sub-county education offices to guide the implementation of programmes for learners with disability. Some schools have gone a step ahead to draft and implement their own policies which govern the handling of learners with disability in matters concerning admission, dismissal and teachers conduct. The study took stock of the availability of various policy document in schools. Among the document observed included memos from the Ministry of education, the Kenyan constitution 2010, UNCRPD policy document, Kenya Schools Sports Association (KSSA) Handbook and school internal policies.

This data indicates that most of the schools 71.43 percent (n=5) had received current written guidelines from the Ministry of Education about their operations in regard to learners with disability. Only about 28.57 percent (n=2) of schools had not received such memos from the ministry. Up to 42.86 % (n=3) of schools were in possession of the Kenyan Constitution and

were aware of its provisions on people with disability. A paltry 28.57 percent (n=2) of the schools had possession of UNCRPD guidelines. The Kenya Schools Sports Association issues handbooks on annual basis. The handbook guides the teachers on the preparations for sports for learners with disability in every particular year. These handbooks are issued to schools to help them prepare their learners and support them towards the sports competitions. Only 14.23 percent (n=1) of schools were in possession of this handbook. 14.23 percent (n=1) had developed their own internal policy in regard to learners with disability.

Similar results were obtained by Wekesa et. al. (2014) where they found that teachers and head teachers did not have sufficient awareness of the existing policies on people with disability. Without these policies, the head teachers and teachers have no basis of making decisions and in turn, they make decisions based on their own knowledge. The unguided decisions mainly affect the implementation of inclusive education and subsequently the services given to learners with disability and the result is that their right are violated. For instance, KSSA offers guidelines on sports for each category of disability and also provides that all learners be facilitated up to national level. However, the absence of the handbook in several schools means that this right is overlooked.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction.

This chapter presents the summary of findings from this study. The summary of findings is followed by the conclusions and finally the recommendations.

5.1 Summary of Findings.

This study had five objectives. The first objective was to establish the availability and appropriateness of equipment and facilities employed in teaching PE for learners with physical disability. The second objective sought to establish the quality of teachers involved in teaching physical education for learners with physical disabilities. The third objective sought to establish the level of learners' participation in sports. The fourth objective was to interrogate the existing policies and the fourth objective was to establish the quality and adequacy of PE teachers and the fifth objective was to establish the level of support by school administration in teaching learners with physical disability.

5.1.1 Summary of findings on availability and appropriateness of equipment and facilities.

Many schools have basic equipment such as balls which are primary requirements for a successful PE lesson. However, this basic equipment was inadequate and most of it not adapted for use by learners with physical disability. The teachers noted that when the equipment broke down, it usually takes long time to repair, and during that period, the PE lessons do not take place effectively. Most schools lack facilities such as ramps, indoor facilities and murram tracks,

which are basic for learners with physical disability. The kind of existing infrastructure, facilities and equipment should be a concern because it is limiting to learners with disability. A learner using a wheelchair is not able to move on staircases independently without overreliance on other learners. According to the Ministry of Education (Republic of Kenya, 2021), one of the strategies to be applied in the CBC is to promote accessible infrastructure facilities and equipment for adequate provision of PE and sport for learners with physical disability. That is to be achieved by carrying out a survey on the existing facilities and then integrating PE facilities and equipment to ensure environment friendly PE infrastructure, facilities and equipment.

5.1.2 Summary of findings on availability of trained personnel involved in the delivery of physical education programme.

All the interviewed teachers had undergone training on SNE, which is a great milestone towards achieving equity in education. It was also noted that some SNE teachers have a relatively high level training as 16.6 percent of them had acquired a master degree in education while 41.7 percent had a bachelor degree in education. The main challenge observed was the inability of the teachers to modify the facilities, equipment and activities to suit learners with physical disability.

5.1.3 Summary of findings on the involvement of learners in sports competitions.

The findings revealed that many learners with physical disability have great interest in various sports activities. The most sports of interest are soccer, athletics, wheelchair racing, skipping rope, tennis, sitting volleyball and netball. Learners also seemed to enjoy new upcoming games such as roller skating, tire riding and boxing. Learners also expressed interest in swimming even though many did not get an opportunity since none of the schools had an aquatic centre.

About half of the interviewed learners had participated in various sports competitions at various levels, with a third of them having participated in competitions outside the school. The skills taught in PE are the primary foundation in which successful athletes build to become champions. Different sports taught in PE lessons help learners build interest and identify the areas which learners are gifted at which majority excel in future. On the contrary, when learners do not get the opportunity to play, they lose interest and their talent does not develop. The data showed that about half (50.2 percent) of the learners did not get an opportunity to participate in any competitions during their school life.

Lack of basic personal equipment such as uniforms and shoes, as revealed during the interview with pupils, was among the major limitations the learners faced in their efforts to participate in sports. The learners' environment such as treatment by other learners, general fear and inability to cope with speed of learners without disability also created a challenge for them to participate in sports. As revealed by this data, the learners' health condition is not a major factor for their inability to participate as suggested by social model of disability theory, but other factors which are majorly created by the society around them.

5.1.4 Summary on involvement of school administration in support of physical education for learners with disability.

Up to half (50 percent) of schools provided support to teachers with basic teaching equipment whereas only a quarter (25 percent) of schools invested in PE teaching facilities for learners with disability. This indicates that many schools do not have a budget dedicated towards provision of equipment and facilities for learners with physical disability. There are other important areas of support that are critical to learners with disability such as transport and corrective equipment and

services. Only a paltry 8.3 percent of schools have been able to achieve that. In funding for equipment and facilities, many schools have relied on external organizations for financial support.

5.1.5 Summary for policies within the school regarding physical education for learners with physical disability.

Many schools received regular circulars from the Ministry of Education. These circulars communicate important guidelines, change of policies and other necessary information that guide on learning for learners with disability. Half of the schools (50%) of schools also kept a copy of the Constitution of Kenya 2010 but only 16.7 % schools had policies on internal regulations in regard to learners with disability. The UNCRPD regularly issues policy guidelines on learners with disability and a third of the schools (33.3%) of schools had copies of this policy. There are school competitions that are held every year starting from the zone level to national level. The games calendar is released by the governing bodies for various school levels detailing the games to be competed for every term. PE teachers can use the games calendar to choose the skills to teach in a particular term so that learners can have an advantage in knowledge and skills for particular games before they go for competitions. However, only 16.7 % of the schools had the calendar for school games.

5.2 Conclusions

From the objective on availability of equipment and facilities, the following conclusions were made:

I. Some schools have made efforts to provide appropriate education to learners with physical disability by availing the required equipment and facilities to support the PE programmes. Some schools have provided modern equipment such as hammocks, which is a worthy investment. However, on average, there are inadequate quantities and quality of equipment which is adapted to teaching PE to learners with physical disability. Learners in integrated schools face several challenges in the access to the equipment during PE lessons. The equipment is limited and learners are made to share by taking turns. Some equipment gets damaged and the repair takes long, leaving the teachers without sufficient equipment for teaching physical education. In the long run, the quality of PE lessons is compromised and the education goals for learners with disability are not achieved.

II. There is a general lack of important facilities for teaching learners with physical disability. The playing fields available are small and some are rocky, rendering them unsafe for learners. Lack of appropriate facilities such as murram and tarmac courts and indoor facilities limits the movements of the children using the wheel chairs owing to their immobility on grass fields.

These findings imply that PE programmes are not effectively delivered, which is an indication of unsuccessful implementation of inclusive education. The objectives for PE programme for learners with disability are partially or completely not achieved. PE lesson can only be successful with sufficient teaching equipment. It also implies that teachers do not pay attention to improvised equipment, which could go a long way in complementing industrial manufactured equipment which could help cushion the schools from the burden of purchase.

On the objective of the availability of trained personnel involved in the delivery of physical education programmes, the following conclusion was made:

I. Many schools have teachers who have undergone training on Special Needs education. Teachers have qualifications ranging from masters degree, bachelor degree and diploma in education. However, the teachers have not been equipped with the knowledge on Adapted Physical Education, which would enable them to tailor-make physical education activities to suit all the learners, especially those with physical disability.

The implication of this finding is that physical education for learners with disability suffers greatly because of the inability by the teachers to modify PE activities to suit the learners with physical disability. It is a positive gesture that the schools have engaged teachers who have SNE training to teach in special units. However, it appears that training for SNE teachers does not take into account the specific PE needs of the learners. There seems to be a lack of emphasis on adapted physical education in SNE teachers training programme. A revision for the SNE teachers training syllabus is needed to include Adapted Physical Education and ensure its implementation is thoroughly achieved.

On the objective of the involvement of learners in sports competitions, the following conclusions were made:

I. Slightly more than half of the learners with physical disability do not participate in sports activities, within the school or outside the school. There are sporting activities organized in the school, Ministry of Education, and external bodies such as Action

Network for Disabled (ANDY). The lack of appropriate equipment such as uniforms and shoes, intimidation by other learners, inability to cope with the intensity and speed of other learners and the level of disability are the major limiting factors to participation.

II. The Ministry of Education, through the KSSA annually issues handbooks to schools, which guide on sports competitions for each particular year. Many schools do not get these handbooks and do not follow-up to collect them from the relevant offices, which implies that no preparations are done by these schools to help learners participate in competitions.

III. Learners show interest in participation in sports activities but their opportunities to participate are limited. There is more emphasis on traditional sports like soccer and athletics and less emphasis on more simple sports such as tyre ridding swimming, which bring more thrill to the learners. There is lack of requisite facilities such as tarmac courts where learners with disability can explore more sporting opportunities such as volleyball and tennis, which further limits their sports opportunities. This problem also leaves teachers with limited alternatives when selecting the skills to teach.

These findings imply that there is need to invest in more facilities and increase the range of equipment for teaching in inclusive schools in order to expose these learners to more sporting opportunities. When adequate equipment and facilities are available to teachers, they are able to introduce new skills to learners, which form the basis for their success in particular sports even after school. The Ministry of Eduaction should follow-up with the schools to ensure that all learners are given their rightful opportunities to enjoy holistic education. Sufficient resources should be deliberately allocated to support sports for learners with physical disability.

On involvement of school administration in support of physical education for learners with disability, the following conclusions were made:

I. School administration in different schools provide varied support to PE programmes, efforts which are influenced by the head teachers' perceptions about the importance of the PE programme and the benefits it achieves for learners. Many head teachers struggle with the allocation of the limited funds they receive in support of learners with disability. They indicate that the funds received are little and not sufficient to cater for the heavy needs of SNE and yet have sufficient to support PE and sports programmes.

II. Many schools rely on international organizations, faith based organizations and individuals to donate equipment and facilities for PE programme in schools.

These findings imply that PE programmes are greatly affected due to limited support from the school administration. External funding is inconsistent, making it an unreliable source of support for important school programmes. Sufficient funds need to be set aside for development of PE for learners with disability, and proper guidelines be established to guide the use of these funds.

On the objective of policies within the school regarding physical education for learners with physical disability, the following conclusions were made:

I. Majority of head teachers rely on policy interpretation through guidelines issued from the ministry through memos. However, not all of the head teachers possess the relevant policy documents.

II. The head teachers do not have proper guidance on resource allocation towards the PE programmes for learners with disability. Some are not aware of the existence of policies that should guide their leadership in inclusive schools, and thus majority of decisions made are inconsistent with education rights of learners with disability.

5.3 Recommendations

The following are the recommendations based on the findings and conclusions of this study:

I. On the findings that the insufficiency of equipment and facilities, emphasis should be placed on improvisation and modification of equipment, facilities and activities to make them friendly for learners with disability. For instance, wheelchairs can be fitted with kickers which can easily be made out of cardboard and mounted on them to allow learners to kick a ball while still in the wheel chair. Learners can enjoy games such as handball, basketball, netball if they could be provided with scoopers to help them collect the ball while on wheelchairs. Such initiatives help eliminate the problem of lack of teaching equipment and ensure PE lessons for learners with disability are successful and enjoyable. Improvisation will also help reduce overreliance on donations of equipment and waiting for the school administration to purchase or repair equipment at the expense of PE lessons.

The Ministry of Education needs to increase the funding towards the purchase of equipment and construction of proper facilities to facilitate effective learning of PE for learners with physical disability. It is evident that the unit cost of educating a learner with disability is higher than the cost of educating those without disability. The capitation dispensed to schools per learner should be reconsidered so that schools that admit

learners with disability can be assigned higher capitation. Budgetary allocations should be made, deliberately targeting the PE equipment and facilities for learners with disabilities. Head teachers should be made to submit proper accounting on how these funds are utilized before more advanced to them.

There are several organizations that have come out to support initiatives aimed at supporting learners with disability such as donations of equipment, sponsoring of school sports activities. Instead of sponsoring a one-time event, these organizations should focus on providing more permanent solutions like creation of facilities that can act as recreation centres for learners with physical disability.

II. Based on the findings that many school heads are ignorant on the practice and guidelines on teaching of physical education for learners with disability, the Ministry of Education should organize for seminars targeting all the head teachers to educate them on how to improve physical education standards in their schools, with emphasis on physical education for learners with disability. The ministry should supply all the policy documents to the schools and ensure full implementation of the policies.

III. The findings indicated that more than half of the learners with physical disability do not participate in sports competitions. More competitions should be organized, deliberately targeting the learners with physical disability. Such competitions will help develop sporting talents in them. Competitions will help learners with disability build their confidence and self-esteem, which will translate to better performance in school, create independence and a feeling of self-worth. Inclusive schools should give reports every year in regard to the external competitions to which learners with disability were

exposed and supported. The constitutional institutions dealing with persons with disabilities should be more involved in supporting the young learners. They need to monitor their progress in schools and their talent development to ensure they become successful individuals even after school.

IV. On the finding that teachers do not have requisite training on adapted physical education, the teacher training colleges and universities should develop special programmes to teach Adapted Physical Education, which should be made compulsory to all teacher trainees. The current SNE teacher training syllabus should be revised and place more emphasis on adapted physical education to equip teachers with knowledge of adapting facilities, equipment and activities to meet the needs of learners with disability.

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Appendices

Appendix 1

Interview Guideline for Pupils

Interview Guidelines for Pupils

1. In which class are you _____
2. Which game (s) do you enjoy? 1. _____ 2. _____ 3. _____
3. What do you like about the games in this school? _____
4. Which is your favourite game? _____
5. Do you participate in Physical Education lessons? _____
6. Have you participated in any competition? _____
7. What was the highest level of competition did you reach? _____
8. Do you play or compete together with the rest of the students? _____
9. Do you receive any help from your teachers/coaches? _____
10. How have your teachers (coaches) helped you reach that level?

11. What is your major challenge to your participation in PE lessons?

Appendix 2

Interview Guideline for School Heads

Interview Questions for School Heads

1. What is the current learners' enrolment in your school? _____
2. How many learners in this school have physical disability? _____
3. How many teachers in your school have received training on teaching learners with disability? _____
4. In what ways does the school support the PE programme for learners with disability?

5. Are there any policies that the school administration has put in place to support the teaching of Physical education for learners with physical disability?

YES NO

If Yes, kindly specify

6. What is the most recent sport facilities or equipment has the school constructed or purchased for use by learners with physical disability?

- i. _____
- ii. _____
- iii. _____

7. Have you made any partnership or with other institutions in regard to use of their facilities or professional help for you learners with physical disability?

YES NO

If Yes, kindly specify

8. What would comment on the success of sport and recreation programme for learners with physical disabilities?

9. What is the future projection of the school in regard to enrollment of learners with disability?

Appendix 3

Questionnaire for Teachers/Coaches

Questionnaire for Teachers

1. Name of School: _____
2. Which is your highest level of education (P1, Diploma, Degree, Masters)?

3. What is the average age of Pupils in your class? _____
4. How many children in your class have physical disability _____
5. What do you consider as the greatest challenge(s) in teaching PE to learners with physical disability?
 - i. _____
 - ii. _____
6. What strategies do you employ to reduce the impact of the challenges mentioned in question 6 above?
 - i. _____
 - ii. _____
7. How do you rate the suitability of the sports equipment in your school for use by learners with disability?

8. Describe any three resources that your school provides to help you meet the PE needs for learners with physical disability
 - i. _____
 - ii. _____
9. Are there any policies developed and supported by your school to support sports programmes for learners with disability? Kindly highlight, if any

10. Do you have sports competitions where learners with physical disabilities are involved?
Yes () No ()

Appendix 4:

Inventory

EQUIPMENT/FACILITY TYPE	QUANTITY	CONDITION	APPROPRIATENESS TO PHYSICAL DISABILITY USE

Appendix 5

Document Analysis

Document number	
Title	
Date	
Author	
Purpose	
Facts about the document	
The main idea about the document	
Relevance	
Inferences to draw from the document	

Appendix 6

Budgets

Item Description	Unit Cost (Ksh.)	Quantity	Total Cost (Ksh.)
Printing and binding	1,000 per booklet	30	30,000
Printing data collection instruments	10 per page	300	3,000
Transport and meals			25,000
Data Analysis software	10,000	1	10,000
Research publishing	10,000	1	10,000
Total			78,000

Appendix 7

Timelines

Data Collection – 2 Weeks – May 2021

Data Analysis and discussion – 2 months – June – August 2021

Submission and defense – September 2021

Appendix 8: Authorization Letter from Ministry of Education



**Republic of Kenya
MINISTRY OF EDUCATION**

STATE DEPARTMENT OF EARLY LEARNING AND BASIC EDUCATION

Telegrams: "SCHOOLING", Nairobi
Telephone: Nairobi 020 2453699
Email: rcenairobi@gmail.com
cdenairobi@gmail.com

REGIONAL COORDINATOR OF EDUCATION
NAIROBI REGION
NYAYO HOUSE
P.O. Box 74629 - 00200
NAIROBI

When replying please quote

Ref: RCE/NRB/GEN/VOL.1

DATE: 31st July, 2018

Michubu Jonah Karwamba
University of Nairobi
P. O. Box 30197 - 00100
NAIROBI

Noted with approval

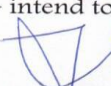
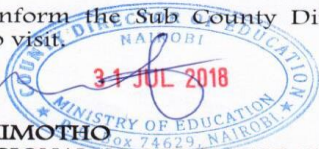
SUB COUNTY DIRECTOR OF EDUCATION
DINGORETTI
P.O. Box 30124 - 00100, NAIROBI
Sign:..... Date: 31/7/2018

RE: RESEARCH AUTHORIZATION

We are in receipt of a letter from the National Commission for Science, Technology and Innovation regarding research authorization in Nairobi County on "*Extent of inclusion in physical education lessons for learners with physical disabilities in Nairobi City County Primary Schools*".

This office has no objection and authority is hereby granted for a period ending 11th June, 2019 as indicated in the request letter.

Kindly inform the Sub County Director of Education of the Sub County you intend to visit.



JAMES KIMOTHO
FOR: REGIONAL COORDINATOR OF EDUCATION
NAIROBI

Copy to: Director General/CEO
National Commission for Science, Technology and Innovation
NAIROBI



Appendix 9: Data Collection Permit

THIS IS TO CERTIFY THAT:
MR. MICHUBU JONAH KARWAMBA
of UNIVERSITY OF NAIROBI, 24686-502
Nairobi, has been permitted to conduct
research in Nairobi County
on the topic: **EXTENT OF INCLUSION IN
PHYSICAL EDUCATION LESSONS FOR
LEARNERS WITH PHYSICAL DISABILITIES
IN NAIROBI CITY COUNTY PRIMARY
SCHOOLS**
for the period ending:
11th June 2019

Permit No : NACOSTI/P/18/90715/23256
Date Of Issue : 14th June 2018
Fee Received : Ksh 1000



Samuel
National Commission for Science,
Technology & Innovation

Appendix 10: Map of Nairobi City County

