

**SCHOOL BASED FACTORS INFLUENCING PARTICIPATION OF
PHYSICALLY CHALLENGED LEARNERS IN PUBLIC PRIMARY
SCHOOLS IN KIAMBU MUNICIPALITY, KENYA.**

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the Award of Degree of Master of Education in Curriculum Studies.**

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DECLARATION

This research project is my original work and has not been presented for a degree in any other university

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DEDICATION

I dedicate to my loving parents Stephen Karande and Lucy Njeri Karande. They have stood by my side at every moment of my study. Always concerned whether I have all the requirements in undertaking my studies. May God bless them abundantly.

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ABBREVIATIONS AND ACRONYMS

EARC	Educational Assessment and Resource Center
KISE	Kenya Institute of Special Education
UN	United Nations
SNE	Special Needs Education
CEC	Council for exceptional children
UNESCO	United Nations Educational, Scientific, and Cultural Organization
MOE	Ministry of Education
MOEST	Ministry of Education, Science and Technology
NCAPD	National Coordinating Agency for population and Development

ABSTRACT

The 1990 World Declaration on Education For All and framework for action to achieve Universal Education by 2000 was root source for inclusion of learners with disabilities in regular schools. The central problem of this study was the fact that physically challenged learners under the inclusive setting in regular primary schools need support in order to learn smoothly like their able bodied peers. The purpose of the study was to find out school based factors influencing the participation of physically challenged learners in public primary schools in Kiambu Municipality. The specific objectives were establishing whether the physical environment, teaching methodologies and exposure training of teachers in management of physically challenged learners influence their participation in public primary schools. The study also sought the coping mechanisms that the physically challenged learners utilize in order to participate. The study utilized descriptive research design. The target population for this study were 20 head teachers, 100 teachers and 43 physically challenged learners in 20 public primary schools in Kiambu Municipality. The study utilized questionnaires for head teachers and teachers, observation schedule to observe the school environment and focus group discussion for the physically challenged learners. The instrument piloting was done in one school to enhance content validity. The study used test-re-test technique to ascertain the instrument reliability. The value of the reliability coefficient obtained 0.75 for each of the questionnaires. The findings got from the study revealed that majority of public primary schools have inadequate or lack relevant physical facilities for the physically challenged learners like leveled door steps, lowered door handles, ramps, staircase rails and adapted toilets. It was also discovered that in majority of the public primary schools, the teaching and learning resources are inadequate. From the findings of the study, majority of teachers in public primary schools are not trained in handling physically challenged learners therefore the teachers are unable to involve them in the learning process. The study concluded that the regular public primary schools have unfriendly environments which hinder movement and participation of the physically challenged learners. Most of the public primary schools are unable to involve the physically challenged learners in their schools due to lack of the required teaching and materials. Most of the teachers in the regular public primary schools do not have the skills required to handle physically challenged learners. The study recommends that the Ministry of Education should step in and provide financial support in these schools in order to make the environment friendly to the physically challenged learners by constructing ramps, adapted toilets, cemented paths and other relevant physical facilities. The study recommends on the support by the government and other related stakeholders to step in and provide the required teaching and learning resources that will aid the participation of the physically challenged learners during the learning process. The study also recommends training of regular primary school teachers on management of physically challenged learners through in-service programmes, seminars and workshops. The training will equip teachers in public primary schools with knowledge, skills and variety of teaching methodologies which will benefit learners who are physically challenged.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

It is estimated that persons with disabilities represent about 10% of the world's population, which translates to about 650 million people. Of these, 80% live in developing countries where most essential social services are inadequate. Around the world, concern is growing about the participation of persons with disabilities in national development. The concern is rooted in both humanitarian and human right issues and the need to ensure that persons with disabilities are empowered to take their rightful place in society (United Nations Population Fund, 2007)

The Universal Declaration of Human Rights Article 26 of 1948 states that “ every one has a right to education and education shall be free at least in the elementary and fundamental stages with elementary education being compulsory” In pursuit of economic development and social justice, virtually all the then newly independent countries gave education particularly primary education top priority. Throughout the world, physically challenged children and many others who experience difficulties in learning have been traditionally marginalized within or excluded from schools. The 1990 world declaration on Education For All and framework for action to meet basic learning needs conference pledged to achieve universal education by 2000. In relation to Special Education the conference noted that the learning needs of the challenged demanded special attention and

steps needed to be taken to provide equal access to education for every category of such challenged persons as an integral part of the education system (UNESCO, 1990).

Missionaries started special education in Nigeria where they emphasized on education for children with physical disabilities. They mostly concentrated on the people who were blind. They were taught to read the Bible using Braille and they were taught to be self reliant (Olubukola, 2001). The first organized schools for individuals with disabilities were established in 1953, in a town called Gindiri, a small town in Plateau State (Obiakor, 1986)

Kenya's Ministry of Education (1976) (1981) states that special schools and programmes were pioneered by churches and voluntary and charitable organizations. The church organizations included the catholic church, the salvation Army, the Presbyterian church of East Africa, the Methodist church of Kenya , the African Inland church and the church of the province of Kenya. The churches worked sometimes in conjunction with and sometimes independently of the societies of the handicap such as Kenya society for the Blind, Kenya society for the deaf children, Association for the disabled people of Kenya and the Kenya society for the mentally handicapped. Before Kenya became an independent country in 1963, a handful of special schools and units existed. They included Thika primary school for the Blind, Nyangoma school for the deaf, Mumias

school for the Deaf, Jacaranda School for the mentally Handicapped, the Agakhan special school and Dagoretti unit for the Deaf.

Integration of handicapped children into ordinary schools on a large scale commenced after the establishment of the Educational Assessment and Resource Centre(EARC) programme in 1984. Kenya aimed to integrate as many handicapped children as possible into normal society e.g ordinary schools. The existing special schools were to accommodate the more severely handicapped children. The success of integrating children into ordinary schools requires a massive effort in training prospective special teachers and other personnel for the handicapped, orientation and information about the needs and possibilities of the handicapped and development and production of teaching and training aids for the handicapped, including assessment tools. Kenya institute of Special Education (KISE) deals with these three areas.

The Council for Exceptional Children (C.E.C) (1993) emphasized the education of children with disabilities as a key factor in all societies. Unfortunately, these children are left for a long time under isolation. It is not surprising to find children with physical disabilities being enrolled in primary schools at ages of ten years when their age mates are already in upper classes. The physically challenged children may sometimes take long to grasp the contents offered in school and these make them to lag behind. This may result in long period of integration, but if these children are given chance to join integrated schools early in their age they

will have opportunity to learn with their peers and compete with them (Kauffman, 1993) According to Ngugi and Kimanthi (2007), inclusion is a philosophy which focuses on process of adjusting the home, school and society so that all individuals regardless of their differences can have the opportunity to interact, play, learn , experience the feeling of belonging and develop in accordance with their potentials.

According to the report task force on Special Needs Education, Ministry of Education (2004), inclusive education ensures that all schools and centers of learning are open to all children. To do this, teachers are empowered with the necessary resources to modify curriculum, the school's physical facilities and social system are also modified so as to fully accommodate physically challenged learners. This inclusive education requires proper planning and adequate support in terms of resources. Full participation and equality should be encouraged for the physically challenged learners. (UNESCO,2008)

Republic of Kenya (2003) asserts that teachers professionally studies is frequently described in terms of two major and apparently separate tasks: one task is instruction; It involves the selection and sequencing of appropriate lesson content, transmission of knowledge, skills and attitudes and the provision of feedback to physically challenged learners about their learning process. The other task is classroom which involves organization of learners and materials, for example, the spacing in the classroom arrangement in order to facilitate movement of the

physically challenged learners. Both of these are key functions in curriculum implementation.

Hannu (2000), the success of inclusive education which serves all children depends on a flexible and relevant curriculum that can be adapted to the needs of the physically challenged learners. All learners cannot learn at the same pace. Rok (2008) an appropriate curriculum is broad based, it includes physical, social, emotional and intellectual goals, Learners will progress at different rates, thus individualized planning and instruction are important parts of a developmentally appropriate curriculum. Therefore one goal of the primary curriculum should be to establish a foundation for life long learning and create a positive experience for the physically challenged learner.

In a classroom setting a teacher cannot use one particular approach for providing the necessary learning experience, but may have to use all the approaches in an integrated manner according to the different situations. According to Hegarty (2002) analysis for developing an instructional strategy which is in terms of the learning experiences which will be provided in a regular classroom alongside instructions for the physically challenged learners in order for them to participate. To effectively teach a learner with physical disabilities, it is important that the teacher train the learner to make use of the functional parts of the body for writing and performing other activities and to acquire basic skills for self care and good relations with others (Ngugi, 2007). Allen and Shwartz (2001) states that all

children are curious to find out many things and this implies that their needs have to be centered for to facilitate healthy physical and mental development. Pupil centered learning is paramount to any kind of learning and participation.

Coping mechanisms includes various types of assistance with day to day necessities including activities of daily living and financial support. A study by Kenya National survey for Persons with Disabilities indicate that persons with disabilities receive some material and monetary support only from faith based organizations (FBOs) and local Non Governmental Organizations. They provide assistive devices like wheelchair and clutches. (Kenya National Bureau of Statistics, 2008). The researcher therefore established whether public primary schools create opportunities and conditions for inclusion of these physically challenged learners in Kiambu Municipality.

According to the data from the Kiambu Educational Assessment and Resource Centre, learners with different disabilities who have been assessed and integrated in public primary schools in Kiambu Municipality are as follows:

Table 1.1: Number of learners with disabilities integrated in public primary schools in Kiambu Municipality

Type of disability	Number of integrated learners
Low vision	25
Learning difficulties	29
Autistic disorders	16
Physical disabilities	58
Mild hearing disability	11

Source: Kiambu Educational Assessment and Resource Centre,2014

This shows that despite inclusion of other learners with disabilities in public primary schools in Kiambu Municipality, those with physical challenges are more than the others. This became the concern of the researcher to study on their involvement in learning activities and what the schools have done in order to accommodate them in the regular schools.

1.2 Statement of the problem

There is a problem on physically challenged learners participating in the learning / teaching process in public primary schools in Kiambu Municipality. This is due to the fact that the school environments are disability unfriendly which hinders their accessibility within the schools. The methodologies used by teachers in the teaching/learning process do not actively involve the physically challenged learners since majority involve use of mobility which is a hindrance to these

particular learners. The teachers handling these physically challenged learners also require knowledge and skills on how to actively involve these learners by adjusting some activities in order for them to participate like their other able bodied learners. A study by Singh and Sakof, 2006 indicates that general education teachers feel unprepared and ill equipped to successfully include students with physical disabilities in their classrooms. The teachers do not have adequate information about health-related needs and disability specific related information about students with physical disabilities. (Singh. D and Sakof. M, 2006) This research therefore aimed at establishing school based factors that influence participation of physically challenged learners in public primary schools in Kiambu Municipality.

1.3 The purpose of the study

The purpose of the study was to investigate school based factors that influence participation of physically challenged learners in public primary schools in Kiambu Municipality, Kenya.

1.4 Research objectives of the study

The study was guided by the following objectives:

- (i) To establish how the physical environment influence the participation of physically challenged learners in public primary schools in Kiambu municipality.

- (ii) To assess the extent to which teaching methodologies influence the participation of physically challenged learners in public primary schools in Kiambu Municipality.
- (iii) To examine how exposure training of teachers in management of physically challenged learners influences participation of physically challenged learners in public primary schools in Kiambu Municipality
- (iv) To establish the coping mechanisms utilized to support participation of physically challenged learners in public primary schools in Kiambu Municipality

1.5 Research questions of the study

The study was guided by the following questions:

- i) Which physical environment adjustments have been made to support participation of physically challenged learners in public primary schools in Kiambu Municipality
- ii) Which teaching methodologies are used to influence participation of the physically challenged learners in public primary schools in Kiambu Municipality
- iii) How many teachers have the exposure training in management of physically challenged learners in public primary schools in Kiambu Municipality

- iv) Which coping mechanisms are being utilized to support participation of physically challenged learners in public primary schools in Kiambu Municipality.

1.6 Significance of the study

The research findings will be of great benefit to the education stakeholders like politicians, educators and leaders and Ministry of Education who can modify and improve accessibility of physically challenged learners in public primary schools. It will also help the ministry of education to act on organizing programmes through which will equip teachers handling physically challenged learners with knowledge and skills that will improve their participation in teaching / learning process instead of being passive learners.

1.7 Limitations of the study

Some of the limitations of the study were the responses of the respondents which may be was affected by their professional qualifications or social biases. In addition to that the respondents feared victimization and hence their responses might be based on what would appear socially acceptable. However, the respondents were assured of confidentiality of their responses when filling in the questionnaires.

1.8 Delimitations of the study

The research was delimited to public primary schools in Kiambu municipality in Kiambu County and was not carried out in the private primary schools. The research was as well delimited to only the physically challenged learners despite having other learners with different special needs in the public primary schools. It was still delimited to public primary schools in Kiambu Municipality leaving out other schools in other localities which have physically challenged learners.

1.9 Basic assumptions of the study

This research is a true reflection of the situation in public primary schools in Kiambu Municipality .The data collected was;

- (i) Valuable
- (ii) Reliable
- (iii) Valid

1.10 Definitions of significant terms

There are some terminologies that have been used in the study which might not be clear enough and therefore the researcher has explained each one of them below;

Disability: Refers to a physical or mental condition that means you cannot use a part of your body completely or easily or that you cannot learn easily.

Inclusion: Refers to a philosophy that focuses on the process of adjusting the home, school and larger society to accommodate persons with special needs including disabilities.

Inclusive education: Refers to the philosophy of ensuring that schools, centers of learning and educational systems are open to all children.

Integration: Refers to the participation of learners with special educational needs in regular education without demanding changes in the curricular provision.

Learners' diversity: Refers to the variations of abilities and differences found among any group of learners in any given setting.

Physical disability: Refers to a person who is slow to do physical activities because of a problem with a certain part of the body e.g. legs or hands.

Ramps: Refers to a slope that joins two parts of a road, path or building which are provided for wheel chair users.

Special needs: Refers to the needs that a person has because of mental or physical problems.

Barrier free environment: Refers to a school surrounding which does not hinder movement of learners from one place to another

Teaching methods: Refer to various strategies that are implemented in the activities of teaching or instructing learners in a classroom setting

Learners' participation: Refer to the process during which the learners have the opportunity to become actively involved in learning activities in a classroom setting.

1.11 Organization of the study

Chapter one consists of background to the study, statement of the problem, purpose of the study, research objectives, research questions, significance of the study, limitations of the study, delimitations of the study, basic assumptions of the study, definitions of significant terms and organization of the study. Chapter two has the concept of inclusion and participation of the physically challenged learners, physical environment and participation of the physically challenged learners, teaching methodologies and participation of the physically challenged learners, exposure training of teachers and participation of the physically challenged learners, coping mechanisms and participation of the physically challenged learners, summary of literature review, theoretical framework and conceptual framework. Chapter three comprises of research design, target population, sample and sampling procedure, research instrument, instrument validity, instrument reliability, data collection procedure, data analysis and ethical considerations .Chapter four has the data analysis, presentation and interpretations. Chapter five has the summary of the study, summary of the findings, conclusions, recommendations and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section outlines the previous studies and point out the existing gap that has not yet been filled. The chapter comprises the concept of inclusion and participation of the physically challenged learners, physical environment and participation of the physically challenged, teaching methodologies and participation of the physically challenged, exposure training of teachers and participation of the physically challenged and coping mechanisms utilized in public primary schools.

2.2 The concept of inclusion and participation of the physically challenged learners.

After the international year for persons with disabilities in 1981, many organizations ‘of’ and ‘for’ persons with disabilities organized themselves and became vocal on the quality of education they were receiving. They argued that children with disabilities who went to regular schools got better education than those in special schools. They came to conclusion that provision of education through inclusive approach was the best option (Rieser, 2002). Inclusion follows from integration but differs from it in that in inclusion it is the school that must make the adjustments to accommodate the child. Inclusion means participating in school life in all aspects (Smith, Polloway, Patton and Dowdy,2001: Kirk, Gallagher and Anastasiow,2003) it requires the educational system to meet the

needs of the child as normally and inclusively as possible rather than the child with physical challenges being made to adapt to suit the needs of the system (Kluth, Villa and Thousand, 2001; Evans, 2000). The key issue with inclusive education is to make the regular schools welcoming for all learners regardless of differences the learners might have.

Inclusion is seen as a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, culture and communities and reducing exclusion within and from education (UNESCO, 1994). It involves being included in school as well as in the community. UNESCO (2001) describes inclusion as being part of a much larger picture than just placement in the regular class within the schools. It is being included in life and participating using ones abilities in day-to-day activities as a member of the community. It is being part of what everyone else is being welcomed and embraced as a member who belongs. Tomko (1996) says that inclusion involves adjusting and changing the practice in the home, the school and the society at large. This is also supported by Etscheidt (2002) who asserts that inclusion is based on the belief that everyone lives and works in inclusive communities, with people of different races, religions and various disabilities. Inclusion can occur in schools, churches, playgrounds, workplaces and in recreation areas. An inclusive society is therefore one which individual differences among the members are respected and valued (Tomko, 1996, Anifto, McLuskie,2003)

This was supported by the Kenya's children act 2001(GoK, 2001) as well as the Ministry of Education directive on all the regular schools to enroll all children even the children with disabilities. Inclusive education is a human right issue. At the core of inclusive education is the human right to education. The 1948 Universal Declaration of Human Right asserts that education is a basic human right. Equally important is the right of children not to be discriminated against as stated in article 2 of the convention of the rights of children, 1989 (UN,1989). A logical consequence of this right is that all children have the right to receive the kind of education that does not discriminate on grounds of disability, ethnicity, religion, gender, capabilities among others (UNESCO, 2003)

Waruguru (2001) states that inclusive education requires identification, reduction or removal of barriers within and around the school that may hinder learning. Teachers and school systems need to modify the physical and social environment so that they can fully accommodate the diverse learners' needs. Waruguru's views (2001) about inclusive education seem to be in concurrence with those of the Kenya government. The Ministry of education in its strategic plan of 2006-2011 states that successful inclusion will require additional efforts particularly, pre-service training and in-servicing of teachers to prepare for specialized demands of teaching the physically challenged learners in particular(GoK). Inclusive education also requires concerned efforts to prepare parents and communities for the changes in their schools for effective inclusion. More so, a strategy is needed for the development of materials, adaptive resources and new

teaching approaches that are appropriate for use in inclusive classrooms (Government of Kenya, 2005).

Throughout the world people have seen the benefits of inclusion. Both persons with disabilities and those without are convinced that inclusion is the way forward (Rustermier, 2002). In an inclusive setting, the children benefit socially, academically and they grow up having a sense of belonging. Inclusive education benefits everyone from children to parents and staff. Hunter (2004), points out that all physically challenged learners benefit by having access to the general education. They acquire the same skills acquired by the others and this gives them a good opportunity to compete with the others in the job market. Research shows that such learners are easily assimilated by their communities. Where inclusion is practiced, all children learn and grow in the environment that they will eventually live and work in. They are prepared for the real world. They do not have to be separated from peers and relatives. This gives them a sense of belonging and they grow up as part of the community. They learn with their peers, who are the role models. It allows them to develop to their maximum potential (Wertheimer, 1997; Vaughan, 2002). This shows that there is need for children to learn together

The National Special Needs Education Policy Framework (2009). This policy came into force in March 2010. The policy advocates for provision of education for children with special needs through inclusive education. The government places emphasis on inclusive for education through regular schools for learners

with special needs and disabilities as opposed to the practice of using special schools and special units (MOE,2009) The Ministry of Education shall recognize and reinforce inclusive education as one of the means for children with special needs to access education (MOE,2009) The main areas on the physically challenged learners are providing funds for adaptation of infrastructure, equipment and facilities in learning institutions, review of curriculum as well as training of teachers in Special Needs. This study therefore sought to establish school based factors which influence participation of physically challenged learners in regular public primary schools.

2.3 Physical environment and participation of the physically challenged in public primary schools in Kiambu Municipality.

Teaching children with diverse abilities is a big challenge, especially in terms of creating a friendly environment. UNESCO (2004a; 2001) points out that; learners have diverse needs and inaccessible environment within or outside the school may contribute in excluding them from learning institutions. (Ogot, (2005). Further, accessible environment helps to keep the physically challenged in schools unlike where schools have inaccessible environment. To alleviate this problem then the environment should be adapted to suit the diverse learners' needs. This involves organizing the classroom and the school compound.

UNESCO (2004) shows that adaptation of the physical environment can be possible by building ramps to classrooms and school buildings, construction of

adapted toilets and leveling the play grounds to ease mobility. If regular school environment is conducive, it becomes ideal for inclusion of physically challenged learners. Schools need to have an atmosphere that is friendly, caring, accommodative, supportive and an atmosphere of freedom and guidance (MOE&S Uganda 2003; Otiato, 2002). This develops the child's sense of security, confidence and ability to cope with others.

Ndurumo (1993) states that mobility is one of the major difficulties that the physically challenged learners encounter. He further observes that 60 % walk with assistance hence the importance of barrier free access. This implies that the buildings must be accessible to the physically challenged who use wheel chairs, crutches, calipers among other mobility aids. Besides, pavements and other structural environments should be accessible. This does not only ease movement but also ensures safety for the physically challenged.

According to Ngugi, (2007)The environmental barriers to be addressed in school to ensure accessibility for learners with physical disabilities include the following:- Modifying and adapting the school and classroom environment to facilitate free movement such as replacing stairs with ramps, adapting the heights of toilet seats for easy use by learners with physical disabilities, providing supportive bars along the classroom , halls and toilet doors for learners to stand , walk , sit or move easily, leveling the grounds and removing obstacles to encourage the learner with physical disabilities to move freely all over the

compound, widening the verandas and aisles in buildings to allow access for all learners including those using wheelchairs and crutches and modifying classroom seating and school assembly arrangements to accommodate the learners with physical disabilities.

The aim of approach and entrance in school is to provide a level or suitably ramped approach from the public footpath to the school entrance and from the school to external play areas. Level approaches are preferred where possible. If ramps are required they should reach certain minimum specifications in terms of gradient, width, length and provision of handrails. Doors and doorways should be wide enough to permit easy passage of wheelchairs. Doors should have appropriate handles at convenient heights. There should be adequate clear wall space to the side of the door by the door handle to aid the wheel chair user when approaching and opening the door. Raised thresholds and doormats should be avoided. Depending on the number of physically disabled pupils, there is need or one or more adapted toilets accessible to wheelchair users of either gender. These should be sited so as to provide quick and easy access from teaching areas. (Hergarty and Alur, 2002)

Children with physical disabilities face barriers if the building has not been constructed with their mobility needs in mind. The architecture of schools is one of the most pressing obstacles in creating more physically accessible schools. Refurbishing these schools with accessible features such as ramps, adapted toilets

and cemented paths is expensive and may require innovative solutions (IDA Draft Policy Statement,2002) Although the Ministry has directed all the regular schools to enroll physically challenged learners , it is uncertain if all the schools have adapted the environment to suit the learners.

2.4 Teaching methodologies and participation of the physically challenged learners in public primary schools in Kiambu Municipality

The classroom teacher is the most important person in the process of including a learner with physical challenges in a regular classroom. The teacher may make it possible for the learner to be accepted by the other learners by demonstrating positive and supportive attitudes to the learner. The teacher can enhance the inclusion of a physically challenged learner into the classroom by encouraging other learners to support him/ her in and outside class time, working closely with the learners parents, adjusting class work to meet the learners needs and making the learner feel welcome and an important member of the class. (Ngugi, 2002)

Learning materials should make learning more interesting and cater for individual differences of learners. They include textbooks, periodicals, maps, atlases, globes, simulation and instructional games, Science corners, slides and charts (Farrant, 1995) When appropriate resources are used and learners are involved actively the senses are involved in the learning process and hence concepts which are learnt are understood well and retained for long. (Katana, 2008)

According to Arthand (2007), physically challenged learners require individualized educational experiences to promote their participation. Individualized learning objectives, methodology and teaching should ensure that the teaching process will become more accurate and accountable. Methods and techniques of prescriptive teaching are essential to a teacher as a basis for writing and implementing the individualized education programme. The programme assures the child that he or she will have a plan tailored to his or her individual strengths, weaknesses and learning styles.

Moodley (2002) says that in order for the learners to be active participants in the learning and teaching process, schools must ensure that teaching and learning materials are used as well as made available to the physically challenged. Learners must be provided with learning materials to meet their individual needs. In an inclusive setting, physically challenged learners would require other resources over and above what is provided by the school. This include resources to enhance mobility such as wheel chairs, crutches and positioning devices (Randiki, 2002) In inclusion it is emphasized that teachers should use locally available resources to support learning (Moodley, 2002)

Randiki (2002) and Ogot (2004) advised that, the available resources should be placed at a central place, where several schools access them. Noting that these resources are very expensive and others are not locally available, it was uncertain if regular primary schools have the appropriate resources for the physically

challenged learners. The study therefore aimed at establishing if the methods were suitable and if the teachers were able to vary them according to the needs of the physically challenged learners.

2.5 Exposure training of teachers in management and participation of the physically challenged learners in public primary schools in Kiambu Municipality

According to Hegarty .S and Alur .M (2002) educating pupils with special needs in ordinary schools leads to considerable demands on teachers and other staff. Specialist teachers need in addition to their specific assessment and teaching skills to be able to work with other teachers and secure their co-operation, liaise with outside agencies, involve parents and generally carry out various functions. Main school teachers have to deal with a wider ability range than before. They may find that their training and experience are insufficient. If a majority of teachers are likely to encounter pupils with special needs in the course of their teaching careers, initial teacher training must take explicit account of this.

According to Ngugi (2007) Teacher training is a pre-requisite for the inclusion of learners in the regular school. The government in collaboration with other stakeholders has a great responsibility of training and in servicing teachers. There is need that appropriate attitudes, skills and competences are developed in teachers during the years of training. To improve the quality of training of teachers for the handicapped, Kenya institute of special education (K.I.S.E) was

started in 1986 and all other departments were put on the same site. In 1987, the institute was upgraded to offer Diploma courses in special education. In the year 2000, Kenya institute of special education started school based programmes where primary school teachers attend during the school holidays. The aim is to increase the number of qualified teachers in public primary schools to handle the learners integrated in the schools.

Moodley (2002) says that when teachers are trained and have the skills to handle physically challenged learners, they normally gain courage in their work. Awareness makes them have positive attitudes towards the learners. Teachers can experience greater job satisfaction and a high sense of accomplishment when ALL children are succeeding in school to the best of their abilities (UNESCO, 2004). Teaching thus becomes a joy not a chore.

Njoroge (1991) found out that those teachers with special needs training favored mainstreaming more than those without. There is need for training teachers in special needs education and in-servicing the others for them to be able to handle physically challenged learners professionally. Through pre-service training and in-service training, they would gain skills and competence and develop positive attitude which is critical for practice of inclusive education (UNESCO 2004; 2003, 2001).

Training and experience helps them gain new knowledge and acquire experience of using different teaching methods. While looking for ways to overcome challenges, they can develop more positive attitude, and approaches towards physically challenged learners. Council for Exceptional Children (CEC) (2003) in Eastern Europe indicated that most teachers agreed that one of the key areas in ensuring education for physically challenged was catered for was to equip the teachers with basic knowledge and skills on handling these learners. This could be done through training of teachers in special needs education.

Eleweke (2001) however noted that training of teachers was mostly based on categories. In Kenya training of teachers has for long been leaning on the same line. Noting that the ratio in regular primary schools, the teacher –pupil ratio is very high, it was doubtful if the children with physical challenges were been given the attention they deserved in the learning process. However Mittler (2002) argues that the ratio does not matter much, but what matters is the training of teachers. Quoting an example from Uganda where the ratio was quite high (1:110 in lower grade and 1:55 in upper grade) he said that the teachers were able to cope because they had been trained. Randiki (2002) says that the training is emphasized in Uganda and every teacher trainee gets introduced to the unique needs of the learners with special needs at the initial training level.

A major barrier to inclusion of the physically challenged is the ability of the teachers handling them in the same classroom setup. Teachers have not been given proper training to cope with physically challenged learners. According to

Agbenyega (2006) many regular education teachers who feel unprepared and fearful to work with physical disabilities in regular classes display frustration, anger and negative attitude towards inclusive education because they believe it would lead to lower academic standards. Additionally access to resources and specialist support affects teacher's confidence and attitudes towards inclusive education (Bennett, 1997) .The teachers' belief about inclusion suggest that they do not regard students with disabilities as belonging in regular classes and would rather prefer them being educated in existing special schools. Teachers also believe that including students with disabilities limits the amount of teaching work they could do thereby resulting in incompleteness of the syllabus. Teachers also believe that if students with disabilities are included in regular classes it would affect the academic performance of their peers without disabilities. Teachers perceive the professional knowledge and skills are inadequate to effectively teach students with physical disabilities in regular schools. It was important to find out whether teachers in regular primary schools have acquired training in handling physically challenged learners.

2.6 Coping mechanisms and participation of the physically challenged learners in public primary schools in Kiambu Municipality

In order for the handicapped children to cope with expectations of classroom work it is essential that their need for adaptive and assistive devices be taken into account. These devices may include standing tables, mobile boards, book turners, adapted games. These aids assist children to work. But these devices might not be

available to the physically challenged learners integrated in the public school. The learners therefore have to rely on the teachers to carry out most of the tasks for them. Self care skills are also important in preparing young physically handicapped children to lead an independent life later on. These skills include the ability to feed, bathe and clothe oneself. It may be necessary for the child to learn how to manipulate various assistive devices to zip, button, cut nails, brush teeth and so on. (Ndurumo, 1993).

If the teacher does not have the skills of involving the physically challenged learners they will be isolated from the learning process in the classroom. This makes the learners to opt to participate in few activities which they are capable of doing. On the other hand the teachers who are not skilled on handling physically challenged learners have a negative attitude towards them and they follow the regular learning activities without incorporating other activities which they can perform. (Hergarty, 2002)

Support services are an important aspect in inclusion. Randiki (2002) views that, this requires a multi-sectoral responsibility if full participation of physically challenged will be realized. Peer support is needed for they can help in peer tutoring, push wheel chairs among other things. Guidance and counseling is needed to help them appreciate one another despite their differences. Community could also help in adapting the environment, financial support, transport of the physically challenged learners to and from school.

2.7 Summary of literature review

A study on inclusive education was carried out in Kenya by Rouse and Kang'ethe (2003). This study asserts that inclusive education in the context is about radical reform and expansion of the education system to accommodate children who are excluded from school. A more inclusive system of education is therefore that focuses on the improvement of educational opportunities for children with disabilities in Kenya.

A study by Ogot(2005) shows that accessible environment helps to keep the physically challenged learners in school. This was supported by UNESCO 2004. Moodley(2002) and Randiki (2002) discovered that for the physically challenged learners to be active participants, schools must ensure that learning materials are available. Ngugi (2007) and Njoroge (1991) agree that there is need for training and in-servicing of teachers on how to handle learners with physical challenges. It was therefore pertinent for the researcher to find out the extent to which these school based factors influence participation of physically challenged learners in public primary schools in Kiambu Municipality.

2.8 Theoretical framework

The study is based on social inclusion theory by Clough &Corbett (2000) It states that inclusive education is not merely about providing access into mainstream schools for pupils who have previously been excluded. It is not about closing an unacceptable system of segregated provision and dumping those in an unchanged

mainstream system. Existing school systems- in terms of physical factors, curriculum aspects, teaching expectations and styles, leadership roles- will have to change. This is because inclusive education is about participation of all children and young people and the removal of all forms of exclusionary practice. (Clough & Corbett, 2000).

2.9 Conceptual framework

According to Orodho (2005) a conceptual framework is a model presentation where a researcher conceptualizes or represents the relationship between variables in the study and shows the relationship graphically or diagrammatically. The purpose of a conceptual model is to help a reader to quickly the proposed relationships. The model in the figure below shows the relationship between the variables under study.

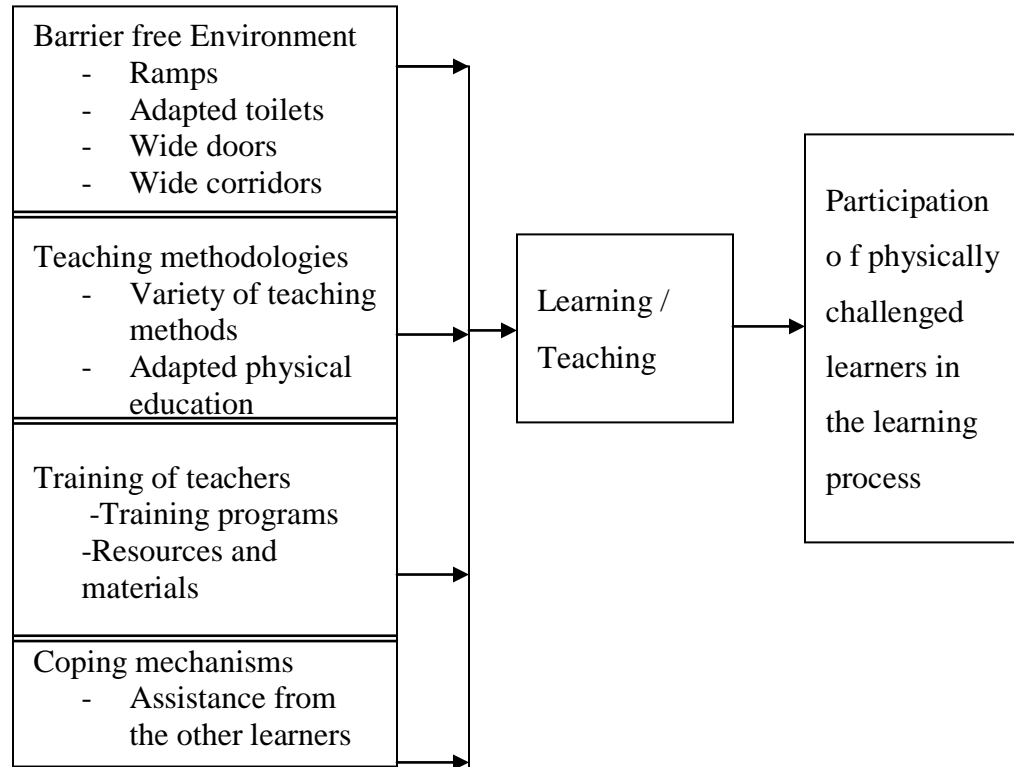


Figure 2.1 Framework of school based factors that influence participation of physically challenged learners

The model identifies the variables under study and shows their relationship. The school environment, teaching methodologies and exposure training of teachers in handling physically challenged learners are the school based factors that influence participation of physically challenged learners in the learning process. In the model, the participation of the physically challenged learners is the dependent variable. Whereas the independent variables are the school environment, teaching methodologies and exposure training of teachers in management of physically challenged learners. When the school environment is barrier free, the teaching methods are differentiated to meet the learners needs and teachers are trained on

handling physically handicapped learners, they will be able to participate in the teaching / learning process just like able bodied peers.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the procedures that were followed in the study. It outlines methodologies that were used which include research design , target population, sample size and sampling techniques, research instruments , instrument validity, instrument reliability , data collection procedure, data analysis and ethical considerations.

3.2 Research design

According to Orodho (2005), a descriptive survey is broad based in nature since it enables the researcher to obtain data from a diverse category of subjects that may interest the policy makers , educators and other stake holders. Hence the researcher collected data from the Sub County Education Office in Kiambu municipality, Educational Assessment and Resource Centre in Kiambu, head teachers and teachers in the sample schools. The researcher collected data from the aforementioned respondents to diagnose the participation of physically challenged learners in public primary education for further interventions.

3.3 Target population

The target population of this study consisted of teachers, headteachers and physically challenged learners in public primary schools in Kiambu Municipality. According to the Sub County Education Office (2014) there are 78 public primary

schools with total of 1549 teachers, 78 head teachers and 58 physically challenged learners in the regular public primary schools (totaling to 1685).

3.4 Sample and Sampling procedure

Falex (2008) defined sample as a portion, piece or segment that is representative of a whole. Sridhar (2008) defined sampling procedure or sampling technique as the process of selection of the sample, as a representative of the population. According to Mugenda and Mugenda (1999), for descriptive survey studies, a range of 20- 30 percent sample is reasonable enough to draw generalizations about the target population. Therefore in this study the researcher used 20% of 78 primary schools in Kiambu Municipality which totaled to 20 schools. The schools were stratified according to those with physically challenged learners and those without. According to Ngechu (2006), if the study is a district survey, a minimum of 50 respondents is an adequate sample size.

Table 3.1: Sample frame

Categories	Target Number	Sample size	% sample
Headteachers	78	20	20.0
Teachers	1549	100	7.0
Physically challenged Learners	58	43	74.0
Total	1685	163	

Therefore the proposed study used 20 head teachers, 100 teachers and 43 physically challenged learners. Simple random sampling was used to select 10 schools without physically challenged learners, their respective 10 head teachers and 100 teachers in these schools. Purposive sampling was used to select 10 public primary schools which have enrolled physically challenged learners, their 10 head teachers and 43 physically challenged learners in these schools.

3.5 Research instruments

The researcher used the following instruments for data collection: questionnaires, observation schedule and focus group discussions. It may be noted that the researcher used different types of research instruments. This approach is supported by Picciano (2004) who contends that the use of multiple tools,

commonly referred to as triangulation, for collecting data enhances the results of each tool. It therefore implies that the gaps discovered in one tool can be verified by information provided by another instrument.

3.5.1 Questionnaires

Mutai (2000) defines a questionnaire as a collection of items to which a respondent is expected to react in writing. Questionnaires were used for this study because they are much more efficient in that they permit collection of data from a much larger sample (Gay, 1992). The questions were both close-ended and open-ended. The close-ended were used because they are easier to administer and to analyze since they are in immediate usable form and are also economical in terms of time and money (Orodho, 2003). The open-ended were used because they normally give room to the participants to freely express their views or give an insight into his or feelings, hidden motives or interests in the given phenomenon under study (Kombo and Tromp, 2006).

The questionnaires were of two types. First, the head teachers' questionnaires were used to collect data regarding their academic and professional qualifications. Other data collected was on the available physical facilities like ramps, adapted toilets and leveled playgrounds. , Part C gathered data on teaching methodologies, part D was on exposure training of teachers in handling physically challenged learners in their schools and part E on the coping mechanisms and participation of the physically challenged learners.

Secondly were the teachers' questionnaires. These questionnaires were designed to collect data about the teachers' academic and professional qualifications, the classroom and general school environment, the teaching skills acquired in order to handle physically challenged learners and their views on inclusion of these learners in regular schools.

3.5.2 Observation checklist

This is a tool that provides information about actual behavior (Kombo and Tromp, 2006). As noted by Kothori (2003), the use of observation in research enables the researcher to witness situations and issues personally without relying on other people. During observations, a formal approach was adopted, which imposes a larger amount of structure and direction on what is observed (Colin, 2002). The researcher visited the sampled schools to observe the environment as it exists. It was used to collect information not obtained by items in the questionnaire.

3.5.3 Focus group discussion

The focus group discussion is said to be a type of group interviews where the participants interact, argue and make joint contribution on the topic of concern rather than making individualized contributions (Bryman, 2008). The focus group discussion conducted involved a total of 43 physically challenged learners in the sampled schools which provided an interactive forum through which the learners

gave information which otherwise would not have been obtained through individual interviews or questionnaires.

3.6 Instrument validity

Mugenda and Mugenda(1999) define validity as the accuracy and meaningfulness of inferences based on research results. It is the ability of instruments to measure what they are intended to measure. A pilot study was conducted prior to the actual research. In this study, one public primary school namely Ndumberi Primary School was randomly selected but it was not in the main study. This was 5% of the sampled schools. Through piloting the researcher was able to determine whether there was any ambiguity in any of the items and ensure that the instruments elicit the type of data anticipated to answer the research questions. The instruments were reviewed by the University of Nairobi supervisors who are experts in the area of study. The researcher made necessary corrections by streamlining the face and content validity of the research instruments. The questionnaires were formatted, edited and ordered to make them respondent friendly.

3.7 Instrument reliability

Reliability refers to the consistency with which an instrument elicits certain expected outcomes each time it is applied to an identical sample. It thus refers to the repeatability or consistency with which an instrument measures a certain variable in given circumstances (Mugenda and Mugenda, 2003). Reliable

instruments are consistent and stable hence can be depended upon to yield similar results under similar circumstances. According to Kothari (1993), 10 respondents are the smallest number of population that can yield meaningful results for data analysis in a survey research. Hence simple random sampling was used to select one school that was not in the main study. Therefore one head teacher and 10 teachers were used. The test-re-test method was used whereby retesting was done after two weeks. Scores of the two sets were computed and correlated using the pearson's product moment correlation coefficient (r). Reliability index (r) of each questionnaire was found to be 0.75, which was within the range recommended and hence the questionnaires were considered reliable. According to Gay (2006) any research instrument with a correlation coefficient between 0.7 and 1.0 is accepted to be reliable enough.

3.8 Data collection procedures

The administration of research data collection instruments was done by the researcher both at the pilot and the main study. The researcher used self administered questionnaires where the respondents filled in by themselves. An introductory letter was sought from the Department of Educational Administration and Planning, University of Nairobi, to help obtain a research permit from the National Commission for Science, Technology and Innovation (NACOSTI). A copy of the permit and an introductory letter was presented to the County Commissioner and the County Director of Education, Kiambu County. The researcher then administered the research instruments to the head teachers,

teachers and physically challenged learners of the sampled schools. As regards physical facilities, the researcher walked around with the help of one host teacher and observed each one of them. The researcher observed the learning sessions in classrooms with physically challenged learners, physical facilities, conditions of learning environment, practical activities and general school environment. As regards learning sessions, the researcher made observation while learning was going on in classes where the physically challenged learners were. This was done in order to establish the approaches that teachers practically used in the process of their teaching. The observation took a formal approach. Most of what was observed was recorded later to avoid suspicion. The researcher also used focus group discussions which involved the physically challenged learners in the regular public primary schools. They were facilitated by the researcher on a discussion through which they raised their difficulties and expectations in their learning in their respective schools. The focus group discussions had seven open ended questions which the researcher used and the physically challenged learners in the schools visited had an opportunity to raise their challenges while in the school and the changes they would prefer in order to be actively involved like their able bodied classmates.

3.9 Data analysis techniques

After data collection, the researcher edited, classified and coded data according to responses made in the questionnaires. Responses to open ended questions were coded through content analysis then recorded by descriptive narrative. For

quantitative data, questions were analyzed by descriptive statistics using frequencies, percentages and measures of central tendencies. For ease of this process, a computer programme, the Statistical Package for Social Sciences (SPSS) was used to identify explanatory relationships among specific demographic variables such as level of education, professional qualification, work experience and gender.

3.10 Ethical Considerations

Ethics may be conceptualized as a special case of norms governing individual or social action. In any individual act or interpersonal exchange, ethics connotes principles of obligation to serve values over and above benefits to the people who are directly involved (Neuman, 2008). The study observed the following ethical issues. The researcher ensured production of a letter of introduction to the department and got consent from the department before carrying out the research. The researcher also obtained a research permit to collect data in public primary schools in Kiambu Municipality. The information provided in confidence was well handled and the researcher ensured that nobody gave information under duress. Therefore the respondents in this research made their decision to participate based on the adequate knowledge of the study where privacy, confidentiality and anonymity was observed.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATIONS.

4.1 Introduction

This chapter presents the result of the findings of the study guided by the set objectives. These include; establishing how the physical environment influence participation of the physically challenged learners in public primary schools, assess the extent to which teaching methodologies influence the participation of physically challenged learners in public primary schools; examine how exposure training of teachers in management of physically challenged learners influence participation of physically challenged learners in public primary schools and establish the coping mechanisms utilized to support participation of physically challenged learners in public primary schools in Kiambu municipality. The findings are presented in figures and tables.

4.2 Questionnaire Return Rate

The study consisted of three categories of target population namely; head teachers, teachers and physically challenged learners. All the head teachers 20 (100%) sampled, filled and returned the questionnaires. The 100 (100%) teachers sampled dully filled and returned the questionnaires. The researcher was able to reach 43 physically challenged learners in the sampled schools for focus group discussion. Table 4.1 shows the questionnaire return rate from the head teachers and teachers in the sampled schools.

Table 4.1: Questionnaire return rate

Category	Sample	No. returned	Percent (%)
Head teachers	20	20	100.0
Teachers	100	100	100.0
Physically challenged learners	58	43	74.14
Total	178	163	91.57

This response was excellent for statistical inference as it conforms to Mugenda and Mugenda (1999) stipulation that a response of 50% is adequate for analysis and reporting, a rate of 60% is good and a response rate of 70% and over is excellent. The head teachers and teachers high return rate was contributed by the fact that researcher conducted the exercise herself. Questionnaires were distributed, completed and collected the same day.

The item that followed was demographic data of the respondents.

4.3 Demographic information of the respondents

The researcher sought to establish head teachers' and teachers' gender, highest qualification and their teaching experience. Generalization and conclusions are largely drawn on the basis of characteristics of the respondents and their experiences. The first demographic information was gender of the respondents which is summarized in Table 4.2 below.

Table 4.2: Gender of the respondents

Gender	Head teachers		Teachers	
	Frequency	Percentage	Frequency	Percentage
	(f)	(%)	(f)	(%)
Female	5	25.0	66	66.0
Male	15	75.0	34	34.0
Total	20	100.0	100	100.0

N=120

Table 4.2 shows that 75% of the head teachers are male and 25% are female. On the other hand 66% are female teachers and 34% are male. From the findings there are more male head teachers in public primary schools than female. This shows that power is associated with male. This concurs with Weiner (1994) who states that educational institutions find themselves at a cross roads in the provision of equal educational chances and in the questioning of women's exclusion from the realms of power. On the contrary, there are more female teachers than male. This shows that there is gender imbalance in the teaching fraternity.

The item that followed is the qualification of the head teachers and teachers in public primary schools. It is summarized in Table 4.3 below.

Table 4.3: Qualification of the respondents

Qualification	Head teachers		Teachers	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Certificate	3	3.0	7	7.0
Diploma	7	7.0	45	45.0
Graduate	10	50.0	41	41.0
Masters	-	-	7	7.0
Total	20	100.0	100	100.0

N=120

The table shows that 50% of head teachers are graduates, 7% have Diplomas and 3% have Certificate level. None of them has acquired Masters level. On the teachers, 45% have Diploma, 41% are Graduates, 7% have Masters and 7% have certificates. This was a clear indication that the head teachers and teachers in the public primary schools have undergone training at different levels. This shows that they have the knowledge and skills required in order to teach pupils in primary schools. It will therefore be easier to pass on to them the expected changes for inclusion in these schools unlike when dealing with untrained cohort.

The item that followed was the teaching experience of both the head teachers and teachers. The teaching experience was classified into 1-3 years, 3-5 years then 5 years and above. It is summarized in the table below, Table 4.4.

Table 4.4: Teaching experience of the respondents

Teaching experience	Head teachers		Teachers	
	Frequency	Percentage	Frequency	Percentage
	(f)	(%)	(f)	(%)
1 – 3	-	-	23	23.0
3 - 5	2	10.0	32	32.0
5 and above	18	90.0	45	45.0
Total	20	100.0	100	100.0

N= 120

The table shows that 90% of head teachers have experience of 5 years and above while those between 3- 5 years are 10%. The table also shows that 45% of teachers had teaching experience of 5 years and above, 32% are between 3 -5 years and 23% are between 1 -3 years. These findings also imply that the head teachers and teachers have adequate teaching experience. They therefore have rich experience in their profession and hence their expectations very high in implementation of inclusion of physically challenged learners. Their knowledge and skills obtained during their teaching period can be used to bring about the expected changes to improve participation of the physically challenged learners.

4.4 Physical facilities as a factor influencing participation of physically challenged learners

The first research question was to establish the influence of physical facilities on participation of the physically challenged learners in public primary schools in Kiambu Municipality. The study sought to find out whether the physical facilities are available to enhance participation of the physically challenged learners. The observation made in the visited schools is summarized in Table 4.5

Table 4.5: Available physical facilities observed in the schools

Physical facilities	Frequency	Percentage
Wide doors	5	25.0
Wide spacing in classrooms	1	5.0
Lowered door handles	0	0.0
Leveled playground	5	25.0
Ramps	1	5.0
Adopted toilets	1	5.0
Staircase rails	2	10.0
Leveled doorsteps	0	0.0
Cemented paths	5	25.0
Total	20	100.0

N =20

The table shows that 25% of the schools visited have leveled playgrounds, 25% have cemented paths, 25% have wide doors, 10% have staircase rails, 5% have ramps, adapted toilets and wide spacing respectively. None of the schools visited had lowered door handles and leveled doorsteps. These findings showed that there are mobility barriers for the physically challenged learners under the inclusive

setting. These schools have not been modified to meet the needs of the physically challenged learners as recommended by Ngugi (2007) that environmental barriers to be addressed in schools are modification and adapting the school and classroom environment to facilitate free movement of physically challenged learners.

The item that followed was the spacing of the classrooms according to the respective teachers. The researcher sought to establish the spacing of the classrooms. The findings are summarized in table 4.6.

Table 4.6: Teachers responses on classroom space for the physically challenged pupils.

Spacing in classrooms	Frequency	Percentage
Spacious	39	39.0
Not spacious	61	61.0
Total	100	100.0
N=100		

Table 4.6 shows that 61% of the teachers reported that their classrooms are not spacious enough for the physically challenged learners and 39% were spacious. This was against what was recommended by Hergarty and Alur(2002) that doors and doorways should be wide enough to permit passage of wheelchairs.

The item was followed by the independence of the physically challenged learners. It is summarized in figure 4.1.

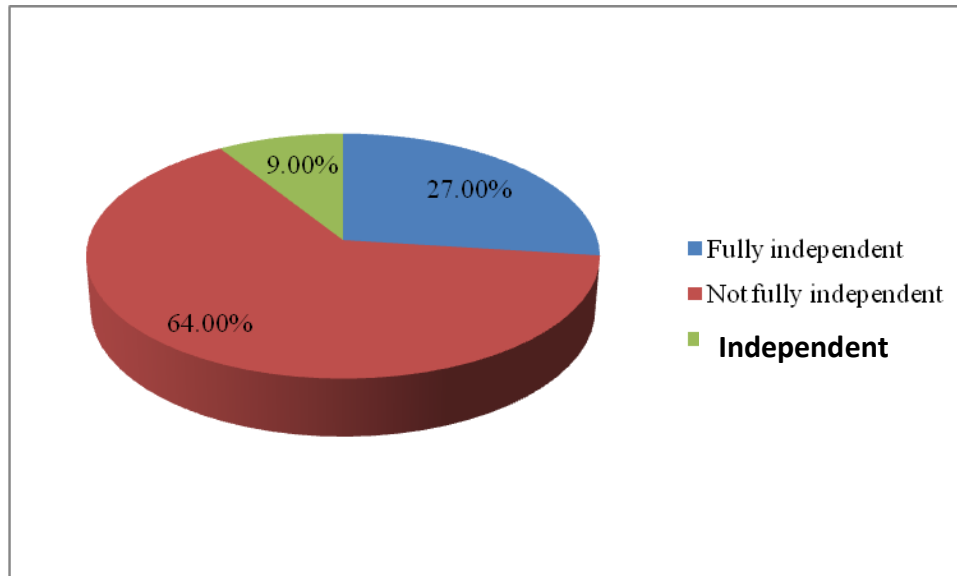


Figure 4.1: Teachers responses on independence of physically challenged learners

The figure shows that 64% of teachers stated that physically challenged learners are not fully independent, while 27% felt that the learners are fully independent and 9% are independent. This showed that the physically challenged learners depend on others for mobility or other activities that they are unable to do on their own. This is against what was stated in a study by Vaughan (2002) that physically challenged pupils in inclusion learn and grow in the environment that they will eventually live and work in. They acquire the same skills acquired by others, a good opportunity to compete with the others in the job market and being independent people in the society

This was thus followed by a table showing whom they depended on as stated by the head teachers. It is shown in Table 4.7.

Table 4.7: Persons the physically challenged pupils depended on while in school

Persons pupils depend on	Frequency	Percentage
Classmates	10	50.0
Teachers	4	20.0
Friends	3	15.0
Special unit in the school	3	15.0
Total	20	100.0

N=20

The table shows that 50% of the physically challenged in their schools depended on their classmates, 20% on teachers, 15% on their friends and 15% on Special Units in their school. Randiki (2002) says that for effective inclusion to be realized, it required multi-sectoral responsibility. Peer support was also necessary. Randiki had expressed fears that bringing all these persons together to support inclusive education was a mammoth hurdle. It was therefore important to note that at least some level of support services were offered by teachers and peers in these schools.

The item that followed was on the teachers' responses on involvement of the physically challenged learners in relation to the school physical environment. It is summarized in the table below, Table 4.8.

Table 4.8: Teachers' responses on mobility of the physically challenged pupils.

Mobility	Frequency (f)	Percentage (%)
Strongly agree	28	28.0
Agree	22	22.0
Disagree	50	50.0
Total	100	100.0

N=100

The table shows that 50% of teachers disagree that physically challenged learners are able to move from one building to the other, 28% strongly agreed and 22% agreed. The findings show that there are some environmental barriers within the school which are hindering free movement of the physically challenged learners from one building to the other. This is as the outcome of study by Ndurumo (1993) which states that mobility is one of the major difficulties that the physically challenged learners encounter.

The item that followed was on the involvement of the physically challenged pupils in outdoor activities. It is summarized in Table 4.9.

Table 4.9: Teachers’ responses on involvement of physically challenged pupils in outdoor activities.

Involvement	Frequency (f)	Percentage (%)
Involved	73	73.0
Not involved	27	27.0
Total	100	100.0

N=100

The Table shows that 73% of teachers support that physically challenged pupils are involved in outdoor activities while 27% do not support. The findings indicate that the physically challenged learners are not left out during outdoor activities. This shows they are not discriminated against due to their physical challenges while the others are going out. This is supported by a study by Otiato (2002) which states that schools need to have an atmosphere that is friendly, caring, accommodative, supportive and freedom.

The item that followed was on the responses of the physically challenged learners on the comfortability of the physical facilities in their schools. It is summarized in Table 4.10 below.

Table 4.10 : Comfortability of the physically challenged pupils with the state of physical facilities.

Comfortability	Frequency	Percentage
	(f)	(%)
Comfortable	8	18.60
Uncomfortable	35	81.60
Total	43	100.0

N= 43

The table shows that 81.60% of the physically challenged learners are uncomfortable with the current state of physical facilities in their schools while only 18.60% are comfortable. From the findings it is clear that majority of the physically challenged pupils are uncomfortable with the current state of physical facilities in their schools. This is as raised in IDA Draft Policy statement, (2002) that children with physical disabilities face barriers if the building has not been constructed with their mobility needs in mind.

4.5 Teaching methodologies as a factor influencing participation of the physically challenged learners

The second research question was to find out the influence of teaching methodologies on participation of the physically challenged learners in public primary schools in Kiambu Municipality. The study sought to find out the teachers' views on educating physically challenged learners in an inclusive setting. SA – Strongly agree, A - Agree , D - Disagree, SD – Strongly disagree.

The views of the teachers on educating physically challenged learners in an inclusive setting was coded in a Likert scale of 1 – 4 (1 – strongly agree, 2 – agree, 3 – disagree and 4 – strongly disagree). Teachers mean response for the tested variables was calculated by getting the average of the total views for each of the variable tested. In the calculation, mean value of ≤ 2.50 was considered as agreed while ≥ 2.50 was considered as disagreed. It is summarized in Table 4.11.

Table 4.11: Teachers’ responses on educating physically challenged pupils in an inclusive setting

Statement	Mean	Standard Deviation
Teachers do not appreciate inclusion of physically challenged learners	2.54	1.24
Teachers do not adequately support physically challenged learners in an inclusive setting	2.59	1.07
Teachers vary teaching/learning strategies to cater for the physically challenged learners	2.16	0.87
My school has enough teaching/learning resources to cater for the physically challenged learners	3.38	0.81
Teachers learning resources have been adapted to suit physically challenged learners	3.20	0.73
Physically challenged learners receive specialized services to improve their participation	2.90	0.89

N= 100

The teachers result showed that the teachers agreed that they do not appreciate inclusion of physically challenged learners (mean response,2.54) with a standard deviation of 1.24. The teachers agreed that they do not adequately support physically challenged learners in an inclusive setting (mean response,2.59) with a standard deviation of 1.07.The teachers disagreed that they vary teaching/learning strategies to cater for the physically challenged learners (mean 2.16) with a standard deviation of 0.87. The teachers agreed that their schools do not have enough teaching/learning resources to cater for the physically challenged learners, (mean 3.38) with a standard deviation of 0.81 and the teachers learning resources have not been adapted to suit physically challenged learners(mean response, 3.20) with a standard deviation of 0.73. The physically challenged learners do not receive specialized services in the schools to support their participation (mean response,2.90) with a standard deviation of 0.89. This is against Moodley (2002) who states that in order for the learners to be active participants in the learning and teaching process, institutions must ensure that teaching and learning materials were used as well as made available to the physically challenged learners. UNESCO (2004) points out that the learners must be provided with learning materials in formats that meet their needs.

The item was followed by teachers' responses on physically challenged learners being involved in physical education. It is summarized in Table 4.12.

Table 4.12: Teachers responses on physically challenged pupils being involved in physical education

Physically challenged are involved in Physical Education	Frequency (f)	Percentage (%)
Strongly agree	28	28.0
Agree	40	40.0
Disagree	12	12.0
Strongly disagree	20	20.0
Total	100	100.0

N=100

From the table 40% of teachers agreed that physically challenged learners are involved in physical education, 28% strongly agreed, 12% disagreed and 20% strongly disagreed. This in support of Ngugi (2002) who states that the teacher can make it possible for the learner to be accepted by the other learners by demonstrating positive and supportive attitude to the physically challenged learner through involving them in learning activities.

The item that followed was on involvement of the physically challenged learners in the classroom activities. It is summarized in Table 4.13.

Table 4.13: Teachers responses on physically challenged learners being involved in classroom activities

Physically challenged are involved in classroom activities	Frequency (f)	Percentage (%)
Strongly agree	30	30.0
Agree	55	55.0
Disagree	10	10.0
Strongly disagree	5	5.0
Total	100	100.0

N=100

The table shows that 55% of teachers agreed that the physically challenged learners are involved in physical education, 30% strongly agreed, 10% disagreed and 5% strongly disagreed. This shows that the teachers handling these learners do not seclude them because of their disabilities. This is supported by Rustermier (2002) who states that in an inclusive setting, the children benefit socially, academically and they grow up having a sense of belonging.

The item was followed by responses of the physically challenged learners in the focus group discussion on their involvement in teaching/ learning process.

Focus group discussion on involvement of physically challenged pupils in teaching/ learning process.

Through the focus group discussion, majority of the physically challenged learners reported that the teachers involved them in the teaching/ learning process.

They are not left out in the learning activities despite their physical disabilities. The findings show that the teachers in public primary schools are not discriminating these learners because of their challenges. They treat them equally and give them equal opportunities to participate in the learning process. This supports a study by Ngugi (2002) which states that the classroom teacher is the most important person in the process of including a learner with physical challenges in a regular classroom. The teacher may make it possible for the learner to be accepted by the other learners by demonstrating positive and supportive attitudes to the physically challenged learner.

This was followed by the teaching and learning strategies used in teaching physically challenged learners. It is summarized in Table 4.14.

Table 4.14: Teaching and learning strategies used in teaching physically challenged learners

Teaching strategy	Frequency	Percentage
Individualized educational instruction	10	10.0
Prompting	5	5.0
Task analysis	7	7.0
Unit teaching	5	5.0
Thematic teaching	5	5.0
Peer tutoring	68	68.0
Total	100	100.0

N=100

The table shows that 68% of teachers use peer tutoring as one of the teaching and learning strategy, 10% use individualized educational instruction, 7% use task analysis and 5% use prompting, unit teaching and thematic teaching respectively. The findings show that the other able bodied learners are assisting their physically challenged classmates during the learning process. This is as stated in UNESCO (2004) that All children learn together and value their relationships, despite their diverse backgrounds or abilities. Their self esteem is enhanced.

This was followed by the teaching strategies suggested by the physically challenged learners in public primary schools. It is summarized in Table 4.15

Table 4.15: Teaching strategies suggested by the physically challenged pupils.

Teaching strategy	Frequency (f)	Percentage (%)
Group discussions	13	30.23
Individualized educational instruction	10	23.26
Peer tutoring	20	46.51
Total	43	100.0

N = 43

The table shows that 46.51% of the physically challenged learners are in favour of peer tutoring, 30.23% support group discussions and 23.26% are for individualized education instruction. The findings reveal that the physically challenged pupils prefer teaching strategies where they are working together with

the other able bodied learners unlike in those that they are secluded. They want to feel part of the group. This is in line with Ngugi’s study (2002) which states that the teacher can enhance the inclusion of physically challenged learner into the classroom by encouraging other learners to support him/ her in and outside class time and making the learner feel welcome and an important member of the class.

The item was followed by the availability of teaching materials and resources relevant to physically challenged learners as indicated by the head teachers. It is shown in table 4.16.

Table 4.16: The relevant teaching materials and resources in the schools

Responses	Frequency (f)	Percentage (%)
Adequate	-	-
Inadequate	12	60.0
Not available	8	40.0
In bad shape	-	-
Total	20	100.0

N=20

The table shows that in 60% of the schools relevant teaching and learning for the physically challenged learners are inadequate while those that are not available are 40%. None of the schools had adequate relevant teaching and learning materials. From the findings, there is inadequacy of teaching and learning materials for the physically challenged learners which hinders their participation.

Noting that the resources are expensive and others are not locally available, the schools have to make use of the locally available materials and adapt them to suit the needs of the physically challenged learners. This was advised by Moodley (2002) who said that; in inclusion it was emphasized that teachers should use locally available resources to support learning. Randiki (2002) and Ogot (2004) also supported that and advised that the available resources should be placed at a central place, where several schools should access.

The item was followed by the head teachers' responses on the use of variety of teaching methods in handling physically challenged learners. It is shown in the figure below, figure 4.2.

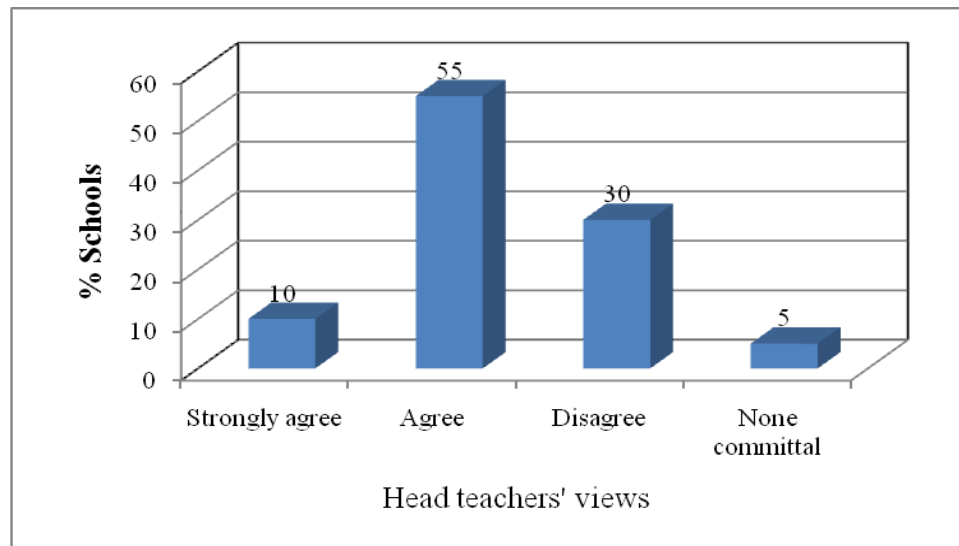


Figure 4.2: Head teachers' responses on the teachers use of variety of teaching methods in handling physically challenged learners

From the above figure, 55% of the head teachers agreed that the teachers in their schools use variety of teaching methods, 30% disagreed and 10% strongly agreed. From the findings, the teachers use variety of teaching methods despite most of them having not attended specialized training on handling physically challenged learners. This agrees with the study by Ngugi (2007) that the teacher can enhance participation of the physically challenged learners by adjusting class work to meet the learner's needs and making the learner feel welcome and important member of the class.

4.6 Exposure training of teachers to handle physically challenged learners as a factor influencing their participation.

The third research question was to find out the number of teachers trained to handle physically challenged learners in public primary schools in Kiambu Municipality. The findings are summarized in Table 4.17.

Table 4.17: Teachers trained to handle physically challenged learners

Training	Frequency (f)	Percentage (%)
Trained to teach physically challenged		
Trained	34	34.0
Not trained	66	66.0
Have attended seminars, workshop or in-service		
Attended	29	29.0
Not attended	71	71.0
Total	100	100.0

N=100

In the table, 66% of teachers were not trained to teach physically challenged learners, only 34% were trained to teach such learners. 71% of the teachers had not attended seminars, workshops, or in-service training on handling physically challenged learners, only 29% had. From the findings it shows that teachers in public primary schools do not have the knowledge and skills required to handle physically challenged learners in order to be in a position to involve them in the learning activities. This is supported by the Council for Exceptional Children (2003) study which indicated that most teachers in Eastern Europe agreed that one of the key areas in ensuring education for physically challenged was to equip them with knowledge and skills on handling these learners because very few had acquired the appropriate skills.

This was followed by findings on the skills acquired by teachers in order to handle physically challenged learners. It is summarized in Table 4.18.

Table 4.18: Skills training areas acquired by the teachers

Training skill	Frequency (f)	Percentage (%)
Training in S.N.E (Physically challenged learners)	3	3.0
Training in inclusive education	20	20.0
Guidance and counseling course	55	55.0
Educational assessment training	5	5.0
Program management training	6	6.0
Activities of daily living training	11	11.0
Total	100	100.0

N=100

In the table, 55% of teachers have guidance and counseling skill, 20% have training in inclusive education, 11% have skills in activities of daily living, 6% have program management training skill, 5% have educational assessment training skill and 3% have training in training skills in handling physically challenged learners. From the finding it is clear that very few teachers in public primary have the skills purposely required to physically challenged learners in the inclusive setting. This results are a true reflection of Ngugi's (2007) study which stated that the government in collaboration with other stakeholders has a great responsibility of training and in-servicing teachers in handling physically challenged learners because very few had acquired the relevant skills to handle physically challenged learners.

This was followed by teachers' responses on the need of specialized training by teachers in regular public primary schools. It is summarized in Table 4.19.

Table 4.19: Teachers' responses on the need of training to handle physically challenged pupils.

Responses	Frequency (f)	Percentage (%)
Strongly agree	91	91.0
Agree	8	8.0
Disagree	1	1.0
Total	100	100.0

N=100

In the table, 91% of teachers strongly agreed on the need for specialized training to implement inclusion of the physically challenged learners, 8% agreed to that and 1% disagreed on the views. This is an indication that the teachers in public primary schools are ready to attend specialized training that will equip them with knowledge and skills to handle physically challenged learners. This was not in line with a study by Moodley (2002) who argued that as a result of training, teachers gain courage in their work. This was an indication that regular school teachers' confidence to teach learners who are physically challenged could be boosted through training. Training of teachers is important as noted by UNESCO (2004) that training ensures that the methods used and the intervention strategies are valid, relevant and correctly applied. Training and experience helps teachers gain knowledge and acquire experience of using teachings methods and better approaches towards physically challenged learners. When they gain skills and competence, they develop positive attitude which are critical for practice of inclusive education. This therefore showed the need for training of teachers in Special Needs Education.

The item that followed was on problems affecting participation of the physically challenged learners as reported by the head teachers. They are summarized in Table 4.20.

Table 4.20: Problems affecting participation of the physically challenged pupils.

Problem	Frequency (f)	Percentage (%)
Low self esteem	3	15.0
Lack of support by teachers	2	10.0
Movement barriers	9	45.0
Stigmatization	1	5.0
Lack of relevant learning materials	5	25.0
Total	20	100.0

N=20

The table shows that 45% of the physically challenged learners have movement barrier problems, 25% lack materials, 15% have low self esteem, 10% lack support from teachers and 5% is stigmatization. From the findings, the physically challenged learners have movement barriers within the school. Therefore it indicates that most of the public primary schools have not been modified to become learner friendly to the physically challenged learners. This did not support a study by Waruguru (2001) who asserts that inclusive education requires reduction or removal of barriers within and around the school that may hinder participation and learning of the physically challenged learners.

4.7 Coping mechanism as a factor influencing participation of the physically challenged learners.

The fourth research question was to establish the influence of coping mechanisms on participation of the physically challenged learners in public primary schools in Kiambu Municipality. The study sought to find out the expectations of the head teachers, teachers and the physically challenged learners in these schools. The head teachers' views on the recommendations is summarized in Table 4.21 below.

Table 4.21: Head teachers' recommendation in order to improve participation of physically challenged learners

Suggestion	Frequency (f)	Percentage (%)
Provide adequate facilities for the physically challenged learners	8	40.0
Give them guidance and counseling to accept and cope with their conditions	1	5.0
Make them disability friendly by building ramps, rails etc	2	10.0
Modifying the facilities to cater for physically challenged	5	25.0
Train teachers in handling physically challenged learners	4	20.0
Total	20	100.0
N=20		

In Table 4.21, 40% recommended on provision of adequate facilities, 25% on modification of the existing facilities 20% on training of teachers in handling physically challenged learners, 10% on making the environment learner friendly and 55 on offering guidance and counseling to the physically challenged learners. These findings show that the head teachers being the managers of these schools have identified what is hindering participation of the physically challenged learners and thus are ready to embrace the change through inclusion. The findings are in agreement with a study by Kluth et al (2001), who points out that inclusion requires education system to meet the needs of the physically challenged learners as normally and inclusively as possible, it is not the child who should adapt to suit the needs of the system.

The item that followed was the recommendations of the teachers in the public primary schools on participation of the physically challenged learners. Their views are summarized in table below, Table 4.22.

Table 4.22: Teachers recommendations to improve participation of the physically challenged pupils.

Suggestion	Frequency (f)	Percentage (%)
Provision of teaching and learning materials	22	22.0
Learner friendly environment	45	45.0
Modify learner’s desk	9	9.0
Train on activities of daily living	13	13.0
Guidance and counseling	11	11.0
Total	100	100.0

N=100

Table 4.22 shows that 45% of teachers recommend creation of learner friendly environment, 22% on provision of teaching and learning materials related to physically challenged learners, 13% on training on activities of daily living, 11% on guidance and counseling of the physically challenged learners and 9% on modification of the learner’s desks. From the findings which are direct from the teachers in the public primary schools it is evident that the schools do not have conducive environment for the physically challenged learners and that is why most of the teachers have recommended on it. This concurs with the study by Waruguru (2001) who states that teachers and school systems need to modify the

physical and social environment so that they can fully accommodate the physically challenged learners.

This was followed by the recommendations of the physically challenged learners through focus group discussion. They gave their recommendations as stipulated in Table 4.23.

Table 4.23: Recommendations from the physically challenged learners in public primary schools

Suggestions	Frequency (f)	Percentage (%)
Removal of barriers in the environment	19	44.19
Being trained on activities of daily living	9	20.93
Guidance and counseling	4	9.30
Moral support by teachers and parents	3	6.98
Being involved in all school activities	8	18.60
Total	43	100.0
N=43		

Table 4.23 shows that 44.19% of the physically challenged learners would like barrier free environment, 20.93% prefer being trained on activities of daily living, 18.60% on being involved in all school activities, 9.30% on guidance and counseling and 6.98% on moral support by teachers and parents. This shows that the physically challenged learners will have higher rate of participation in learning if they are in a barrier free environment. This coincides with a study by Hunter (2004) who points out that all physically challenged learners benefit by having access to the general education. They acquire the same skills acquired by the other learners. But this is possible if the schools provide a diverse and stimulating environment and opportunity for the learners to learn (UNESCO, 2004)

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents the main highlights that came up from the study in relation to the objectives. The chapter presents the summary of the study, conclusions and recommendations. It further presents suggestions for further research.

5.2 Summary of the study

The main purpose of the study was to investigate school based factors that influence participation of the physically challenged learners in regular public primary schools in Kiambu Municipality. The study aimed at achieving the following objectives: to establish the physical facilities available that influence the participation of the physically challenged learners in public primary schools; to assess the teaching methodologies used by teachers handling physically challenged learners in public primary schools; to examine the extent of exposure training of teachers in management of physically challenged learners and to establish the coping mechanisms utilized to support participation of physically challenged learners in regular public primary schools.

Chapter two reviewed related literature to school based factors influencing participation of the physically challenged learners in public primary schools. The overview of inclusive education and its implementation in public primary schools, physical facilities for the physically challenged learners, teaching methodologies

for the physically challenged learners, exposure training of teachers in handling physically challenged learners and the coping mechanisms of the physically challenged learners in public primary schools.

The study used descriptive survey design. Random and purposive sampling techniques were used to select head teachers, teachers and physically challenged learners who participated in the study. The study targeted 20 head teachers, 100 teachers and 43 physically challenged learners. The total number of respondents was 163. Questionnaires, observation schedule and focus group discussion were used to collect data. The raw data coded into quantitative data and analyzed using descriptive statistics. Statistical Package for Social Sciences (SPSS) was adopted for effective analysis. Data was presented in frequency tables and percentages.

5.3 Summary of the findings.

Finding on the first research objective on the influence of physical environment on participation of physically challenged learners in public primary schools revealed that the physical facilities in the schools and classrooms are not structured to accommodate learners with physical disabilities. This is because Only (5%) of schools have adapted toilets, (5%) have ramps, (25%) of the schools have wide doors, 25% of the schools have leveled playgrounds and cemented paths. None of the schools visited had neither the lowered door handles nor the leveled door steps. 61% of the teachers reported that spacing in their classrooms was not enough for the physically challenged learners while 39% had enough

space. 50% of the teachers disagreed that the physically challenged learners are able to move independently from one building to the other within the school and 22% agreed. And this went hand in hand with the findings from 50% of the head teachers who reported that the physically challenged depend on their classmates. This shows that the environment in public primary schools is not favorable to the physically challenged thus resulting to dependency on classmates because of the structure of the environment.

Observed physical facilities that need to be adopted for the physically challenged learners in an inclusive setting were; wide spacing in classrooms, building ramps, leveled door steps adapted toilets, staircase rails and lowered door handles. One of the schools visited with the highest number (22) of physically challenged learners had only one physical facility available for these learners that is cemented paths, the rest were missing. Learners with physical challenges with inaccessible environment within or outside the school may contribute in excluding them from learning institution where as accessible environment help in keeping physically challenged learners in school. This calls for head teachers entitled for managing all the activities being undertaken in schools to seriously advocate and involve all the stakeholders to construct the required facilities to support physically challenged learners.

Findings on the second research objective which focused on the influence of teaching methodologies in participation of physically challenged in public

primary schools revealed that 40% of teachers agreed that they involve physically challenged in physical education while 12% disagreed. 55% of the teachers agreed that they involve the physically challenged learners in classroom activities while those who strongly disagreed were 5%. Majority of teachers 68(68.0%) use peer tutoring as one of the methods of teaching and learning strategies while 5% use thematic, unit teaching and prompting respectively. 60% of the head teachers reported that the teaching and learning materials were inadequate in their respective schools while in 40% of the schools the resources were not available. 55% of the head teachers added that the teachers in their schools vary the teaching methods while 30% disagreed with this. This shows that there is urgent need for provision of relevant teaching and learning for the physically challenged learners.

The teachers are varying the teaching methods but inadequacy or lack of learning materials might be demotivating to them thus unable to fully involve the physically challenged learners in their schools. The head teachers stated that when the resources for the physically challenged learners are adequate, it helps the learners to feel as part of the learning process, improves participation, movement is easier for the physically challenged learners and their full participation in the school programme is enhanced. When the resources are inadequate, it leads to undesired results, pupils not involved in learning, work at a slow pace, makes learners to be passive and pupils unable to participate fully at the same time. In order for the physically challenged learners to be active participants in the learning and teaching process, schools must ensure that teaching and learning

materials are made available. This requires the head teachers to involve various stakeholders like the teachers, government, parents and local community to access the relevant materials. The teachers can also make use of the locally available materials without having to spend money on the purchase of the items.

Findings on the third research objective revealed that majority of teachers (66%) are not trained to manage physically challenged learners, only 34% are. Majority of teachers (71%) have not attended any seminar, workshop or in-service on handling physically challenged learners while those who have attended are 21%. Only 3% of the teachers have acquired the skills required in management of physically challenged learners and majority of teachers (75.0%) have acquired guidance and counseling. 91% of the teachers strongly agreed that teachers need specialized training to enable implementation of inclusion of physically challenged learners in public primary schools, only 1% disagreed with this. The data from the head teachers and teachers imply that the two have not been trained in handling physically challenged learners which had a negative effect on their inclusion in public primary schools. Through pre service training and in- service training, teachers gain skills and competence and develop positive attitude which is critical for participation of the physically challenged learners under inclusive setting in public primary schools.

Findings on the coping mechanisms utilized to support participation of physically challenged learners revealed that the majority of the head teachers 40% recommended provision of adequate facilities while 5% recommended on guidance and counseling. 45% of the teachers recommended a learner friendly environment while 5% recommended on modification learner's desk. From the focus group discussion, 44.19% of the physically challenged learners recommended removal of barriers in the environment while 6.98% recommended on moral support from teachers and parents. This shows that the head teachers, teachers are ready to support inclusion of the physically challenged learners if the necessary provisions are made. Accessible environment can be made possible for the physically challenged learners by building ramps to classrooms and other buildings, construction of adapted toilets and leveling of the playgrounds to ease their mobility. This will in turn improve their participation in learning activities both inside and outside the classroom since there will be no barriers.

5.4 Conclusions

Based on the findings, it was concluded that physical environment influenced the participation of the physically challenged learners in public primary schools. Physical facilities both in the school compound and inside the classrooms were not structured to accommodate learners with physical challenges. It was also concluded that physical facilities structured to accommodate physically challenged learners were inadequate and some were completely missing. For

example some schools did not have ramps, adapted toilets, leveled doorsteps and leveled playgrounds.

The study also concluded that teaching methodologies influenced participation of the physically challenged learners. Peer tutoring as one of the strategies helped the physically challenged learners to participate in the learning. Teachers who used varied teaching strategies were able to involve the physically challenged learners unlike those who used rigid methodologies. Learner centered methods are the most appropriate because they actively involve the learners making the process interesting unlike in teacher centered approaches where learners are passive.

The study concluded that the teachers who have exposure training in handling physically challenged learners influenced their participation. This is because the teachers who have undergone special needs education, inclusive education or specifically trained on how to handle physically challenged learners were able to involve them in the learning process unlike the ones who do not have knowledge and skills. Those who have not undergone training usually have negative attitude towards these learners and perceive them as low achievers. Those who had undergone training had the relevant skills to handle the physically challenged learners thus involve them just like their other able bodied peers.

Finally the study concluded that the physically challenged learners in the public primary schools have coping mechanisms that they utilize in order to be able to participate in the learning process. For ease in mobility they are assisted by their peers or teachers to push their wheel chairs or carry them if need be. This is especially in public primary schools where the buildings do not have cemented paths and ramps for those learners on wheelchairs.

5.5 Recommendations

Based on the findings, the following were the recommendations for the study:

- (i) The government should put up physical facilities required for accessibility of the physically challenged learners in public primary schools thus improving their participation.
- (ii) The government should provide adequate learning and teaching resources that will enable respective teachers to use variety of teaching methods. For example book turners, pencil holders and adapted chairs.
- (iii) The government should plan on training of all teachers in regular public primary schools on how to handle learners with physical challenges. The specialized units on special education can be incorporated in pre-service training in Teacher Training Colleges as a compulsory unit. While in-service programmes can be organized for those who are already teaching in public primary schools. The training will equip them with the relevant knowledge and skills to handle physically challenged learners.

- (iv) The Government of Kenya to issue circulars on Special Needs Education Policy to each and every public primary school, every term in order to enable them adopt it for the purpose of successful implementation of inclusion in public primary schools.
- (v) Sensitization should be done more specifically to the head teachers on inclusion of physically challenged learners in public primary schools.

5.6 Suggestions for further research

It may not have been possible through this study to exhaust all the factors that influence the participation of the physically challenged learners in public primary schools. It is therefore recommended that:

- (i) A study can be carried out to establish other school based factors not captured in this study that influence participation of physically challenged learners.
- (ii) A similar study on school based factors at different levels such as secondary schools, colleges and other institutions of higher learning.
- (iii) A comparative study can be carried out in other counties in Kenya. The results can be compared and discussed at a national level.

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Appendix I

LETTER OF INTRODUCTION

Rosalia Wanjiku Karande,
University of Nairobi,
P.O.BOX, 30197,
Nairobi.

Dear respondents,

RE: School based factors influencing participation of physically challenged learners in public primary schools in Kiambu Municipality, Kenya.

I am a postgraduate student pursuing a Master of Education Degree in Curriculum Studies at the University of Nairobi. I am conducting a research on ‘School based factors influencing participation of physically challenged learners in public primary Schools in Kiambu Sub County’

Your school has been selected to participate in this research, I hereby request you to respond to the questionnaire items as honestly as possible and to the best of your knowledge. The questionnaire is meant for this research only and your identity will be treated with utmost confidentiality. The information given shall strictly be used only for the purpose of the research. Thank you for your co-operation in this important exercise.

Yours faithfully,

Rosalia .W. Karande.

Appendix II

QUESTIONNAIRE FOR HEADTEACHERS

This is a questionnaire meant to collect data on participation of the physically challenged learners in regular schools. Please feel free to give accurate information. The information will be treated with a lot of confidentiality and respect. Read the questions keenly and answer accordingly.

The questions will be filled by ticking (v) the appropriate one or giving short answers to the open ended questions

Section A: Demographic information

1. Indicate your Gender Female () Male ()

2. Number of years in the profession

1 – 3 years () 3- 5 years () 5 years and above ()

3. Number of years as the head teacher in the current school

1 – 3 years () 3- 5 years () 5 years and above ()

4. What is your highest academic qualification?

P1 Certificate () Diploma () Degree () Master ()

5. Specify area of specialization if any _____

6. Have you attended any in –service programme in handling physically challenged learners for the last three years?

Yes ()

No ()

Section B: Physical environment and participation of the physically challenged

7. How many physically challenged learners are enrolled in the school? -----

8. Tick the physical structures available in the school environment for the physically challenged.

Physical facilities	Available	Not available
Ramps		
Adapted toilets		
Wide doors		
Cemented paths		
Leveled playgrounds		
Leveled doorsteps		
Staircase rails		

Section C: Teaching methodologies and participation of the physically challenged learners.

9. Are the physically challenged learners fully independent? Yes () No ()

10. If 'No' whom do they depend on while in school ?

11. Teachers in the school involve physically challenged in the classroom activities. Strongly agree () Agree () Strongly disagree ()
Disagree ()

12. Physically challenged learners participate in physical education Yes () No ()

13. Teachers in the school involve physically challenged learners in outdoor activities. Strongly agree () Agree () Strongly disagree () Disagree ()

14. The following is the list of teaching /learning strategies used in teaching physically challenged learners ; tick (v) against the ones that teachers in your school use.

Item	Teaching strategy	Applied	Not applied
(a)	Individualized educational instructions		
(b)	Prompting		
(c)	Task analysis		
(d)	Unit teaching		
(e)	Thematic teaching		
(f)	Peer tutoring		

Section D: Exposure training of teachers in handling learners with physical challenges and their participation'

15. How many of the teachers are trained in handling physically challenged learners?_____

16. Teachers in the school regularly attend in – service courses on handling physically challenged learners. . Yes () No ()

17. Teaching materials and resources relevant to physically challenged learners are: Adequate () Inadequate () Not Available () In bad shape ()

18. Teachers handling the physically challenged learners in the school use variety of teaching methods. Strongly agree () Agree ()

Strongly disagree () Disagree()

19. How does the adequacy or inadequacy of equipment affect the participation of the physically challenged learners?

20. What other problems affect the participation of the physically challenged learners in your school

Section E: Coping mechanisms and participation of the physically challenge

21. What do you suggest can be done in the public primary schools in order to improve participation of the physically challenged learners?

Thank you

Appendix III

QUESTIONNAIRE FOR TEACHERS

This is a questionnaire meant to collect data on participation of the physically challenged learners in regular schools. Please feel free to give accurate information. The information will be treated with a lot of confidentiality and respect. Read the questions keenly and answer accordingly.

The questions will be filled by ticking (v) the appropriate one or giving short answers to the open ended questions.

Section A; Demographic information

1. Indicate your gender Female () Male ()
2. Are you a professionally trained teacher? Yes () No ()
3. Number of years in the school 1– 3 years () 3- 5 years ()
5 years and above ()
4. What is your highest academic qualification?
P1 Certificate () Diploma () Graduate () Master ()
5. Specify area of specialization if any _____

Section B: Physical environment and participation of the physically challenged

6. The classroom is spacious enough for the movement of the physically challenged learners. Yes () No ()
7. If your answer to question 9 above is 'No', give the reason

8. It is easy for the physically challenged learners to move from one building to the other within the school. True () False ()

Section C: Teaching methodologies and participation of the physically challenged learners.

9. Do you involve the physically challenged in learning activities? Yes () No ()

10. The physically challenged learners in your class are involved in physical education. Strongly agree () Agree () Strongly disagree () Disagree ()

11. Are the physically challenged learners fully independent? Yes () No ()

12. If your answer to question 22 above is ‘No’ whom they depend on while in the school?_____

13. The physically challenged learners are involved in outdoor activities
Yes () No ()

14. The following is a list of statements on educating physically challenged learners in an inclusive setting. Kindly tick (v) in the box against the words that best describes your views after every statement.

SA-Strongly agree, A –Agree, D- Disagree, SD- Strongly Disagree

Item	Statement	SA	A	D	SD
(a)	Teachers do not appreciate inclusion of physically challenged learners				
(b)	Teachers do not adequately support physically challenged learners in an inclusive setting				

(C)	Teachers vary teaching/ learning strategies to cater for the physically challenged learners				
(d)	My school has enough teaching/ learning resources to cater for the physically challenged learners				
(e)	Teaching/ Learning resources have been adapted to suit physically challenged learners				
(f)	Physically challenged learners receive specialized services to improve their participation				

Section D: Exposure training of teachers in handling learners with physical challenges and their participation

15. Are you trained in handling physically challenged learners? Yes()
 No()

16. Have you ever attended any seminar, workshop or in-service training on physically challenged learners ? Yes() No ()

17. The following are skill training areas for teachers. Indicate with a tick (v) those that you have acquired in order to handle physically challenged learners

Item	Skill training area	Acquired	Not acquired
(a)	Training in SNE(Physically challenged learners)		
(b)	Training in inclusive Education		
(c)	Guidance and counseling course		
(d)	Educational assessment training		
(e)	Programme management training		
(f)	Activities of daily living training		

18. Teachers in the regular schools need specialized training to enable them to implement inclusion of physically challenged learners. Strongly agree ()
 Agree () Disagree () Strongly disagree ()

Section E: Coping mechanisms and participation of the physically challenged

19. What can be done to improve their independence?

Thank you

Participation of the physically challenged in the classroom

ACTIVITY	FULLY INVOLVED	PARTIALLY INVOLVED	IN ISOLATION
Manipulation of learning materials			
Asking and answering questions during the lesson			
Working out problems incase of maths lesson			
Carrying out practicals and experiments in science lessons			
Discussion groups			
Playing with others during breaks			
Taking part in physical exercise during physical education			

Appendix IV
FOCUS GROUP DISCUSSION

The following will be discussed by the physically challenged learners in the
sampled regular public primary schools

1. Which challenges do you face while within the school premises?

2. Are you comfortable with the current state of physical facilities in your school?

3. Are you able to carry out your activities independently while in the school?

4. If not independent whom do you depend on while in the school?

5. Do the teachers involve you in the teaching/learning process in the classroom?

6. Which teaching strategies do you support that your teachers should use in order for you to participate in the learning process?

7. What do you recommend to be done in your schools to improve your participation?

Appendix V

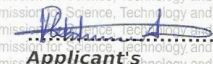
RESEARCH PERMIT


THIS IS TO CERTIFY THAT:

MISS. ROSALIA WANJIKU KARANDE
of UNIVERSITY OF NAIROBI, 0-900
Kiambu, has been permitted to conduct
research in Kiambu County
on the topic: SCHOOL BASED FACTORS
INFLUENCING PARTICIPATION OF
PHYSICALLY CHALLENGED LEARNERS IN
PUBLIC PRIMARY SCHOOLS IN KIAMBU
MUNICIPALITY, KENYA.

for the period ending
31st December, 2014

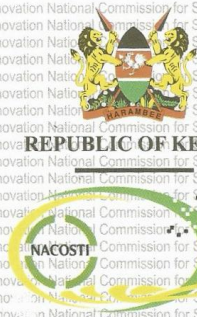
Permit No. : NACOSTI/P/14/3940/3502
Date Of Issue : 29th September, 2014
Fee Received : Ksh 1000


Applicant's
Signature


Secretary
National Commission for Science, Technology & Innovation

CONDITIONS

- 1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit**
- 2. Government Officers will not be interviewed without prior appointment.**
- 3. No questionnaire will be used unless it has been approved.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.**
- 5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.**
- 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.**


REPUBLIC OF KENYA
NACOSTI
National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 3389

CONDITIONS: see back page

Appendix VI
RESEARCH AUTHORIZATION



OFFICE OF THE PRESIDENT

MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT

COUNTY COMMISSIONER, KIAMBU

Telegraphic address: "Rais"
Telephone: +254-66-2022709
Fax: +254-66-2022644
E-mail: countycommkiambu@yahoo.com
When replying please quote

P.O. Box 32-00900
KIAMBU

Ref. No. ED.12/1/VOL.II/26
and date

.....16th October,.... 20.14....

Rosalia Wanjiku Karande
University of Nairobi
P. O. Box 30197 - 00100
NAIROBI

RE: RESEARCH AUTHORIZATION

Reference is made to University of Nairobi letter Re No. **NACOSTI/P/14/3940/3502** of 29th September, 2014.

You have been authorized to conduct research on "*School based factors influencing participation of physically challenged learners in public primary schools in Kiambu Municipality, Kenya*". The data collection will be carried out in Kiambu County for a period ending 31st December, 2014.

You are requested to share your findings with the County Education Office upon completion of your research.

J. K. Wango
For: County Commissioner
KIAMBU COUNTY

C: County Director of Education
KIAMBU COUNTY

National Commission for Science, Technology and Innovation
P.O. Box 30623-00100
NAIROBI